

# ***THE AMALGAMATED PHOTO HISTORY NEWSLETTERS***

• VOL. 1-2 2020

We continue with our samplings of photo historical newsletters from around the world in order to offset the decline of activities from the Covid pandemic.

We hope you enjoy the readings and gain knowledge from the many writer and researchers who have contributed to the final pages.

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Australian Photographic Collectors' Society Inc. – Rod Reynolds  
Photographic Historical Society of Canada – Robert Lansdale



# BACK FOCUS

Journal of the Australian Photographic Collectors' Society Inc

A16888V - ABN 55 567 464974



# 114

OCTOBER 2019

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Celebrating the life of Ian Carron  
APCS Life Member &  
Editor of Back Focus 1992-2019

Using Collectable Cameras

Innovative Designs

A Premo model C, Murtoa & Lubeck

Roama Projector

Corfield Periflex

Sony Mavica MVC-5000





# The Australian Photographic Collectors' Society of Australia Inc.

A16888V

ABN 55 567 464 974

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The Australian Photographic Collectors' Society Inc is incorporated in Victoria Australia, and has as its members, people with similar interests in photography. Its Rules of Association contain its aims and purposes as "To foster the collection, restoration and conservation of the apparatus, images and literature of photography from its beginning until recent times. And to encourage the exchange of information about such items."


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Meetings are held at Australian Model Railway Association Hall. 92 Wills Street, Glen Iris, VICTORIA - Details of meetings, markets, auctions and other event may be found on the APCS website: [www.apcsociety.com.au](http://www.apcsociety.com.au)

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BACK FOCUS came into being back in 1992 as the replacement for the previously irregular newsletter of the Australian Photographic Collectors' Society at a time when home computers were emerging as the efficient alternative to earlier printing systems. Ian Carron, along with the late John Keesing were the driving forces behind that change and in all there were 113 editions produced over the subsequent 27 years, all with Ian as Editor. Ian died on 18th August this year after a battle with Cancer, but only a week before that sent me the draft of the first few pages of Issue 114 incorporating a new format. The issue would have been released in September but for obvious reasons that has been delayed to become the issue in your hands now.

Ian had edited a few articles for issue 114 - and there was an article in the wind, a whimsical story around a photographic competition. The APCS committee has decided to include that, and part of the story of Ian's life that he published as an independent work recently as issue 114 - making it the last issue of Back Focus that Ian will have at least edited in part.

Ian was very much a part of the APCS, joining back in 1980. He was President for some years and may well have been the most active of the committee, attending all meetings even when it was difficult for him at the end. He was made a life member in 2009 for services to the Society. His will be a very difficult act to follow.

This will be the last edition of Back Focus for 2019. Looking forward, there will be some changes to Back Focus as part of the ongoing management of the APCS. A Special General Meeting of the APCS has been called as part of the normal November meeting and one of the agenda items will be the way in which Back Focus will feature in the future, giving the membership the opportunity to be part of the decision process. Watch for announcements in the Newsletters and in the first edition of Back Focus in 2020.

Rod Reynolds - President

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# My Story... Ian Robert Carron... 1938-2019

*The following is taken from a book that Ian wrote earlier this year – a biographical story. This piece selects items about the Ian that we in the APCS knew, and fills in a few details.*

Ian Carron was born into a typically suburban Melbourne home in 1939 – the only son of Frederick Carron and Agnes Nudl. Ian's memories were typical of that era of suburban life – deliveries of milk, bread and ice from horse and cart, unmade streets, entertainment on the radio – all a lot different from what we have today, and almost certainly complicated by the shortages that were to be key issues after WW2. Ian attended the Ivanhoe schools, and it was at Ivanhoe Grammar School that Ian was to see a film being developed. He then joined the local photographic club and eventually made photography a large part of his life.

Approaching later teens, Ian decided to leave school and venture into employment, photographically related, of course. A number of rather nondescript jobs followed till one day, he replied to an advertisement for a camera assistant at Athol Shmith Studios. He won this position and started work at the Paris end of Collins Street, with Athol Shmith and John Cato. Athol was the 'darling' of the social set and was in high demand for all the Melbourne high society weddings. John Cato was also a renowned photographer and came from good stock, his father being Jack Cato, highly acclaimed in this field and the author of a number of books, including, 'The Camera in Australia' and 'I Can Take It', his life's story.



**Ian - Portrait taken by John Cato**

Here Ian learned to use mono rail cameras and assisted both Athol and John on wedding assignments. In the studio they photographed all the latest designs from local fashion houses. Houses such as La Petite all paraded before them, modelled by the top models at the time and Ian was gaining knowledge and experience which would stand him in good stead in years to come. Beauties such as Janice Wakely,

Maggie Tabberer and others were regulars at 120 Collins Street.

The Shmith family, Athol, brother Clive, (business manager) and sister Verna, (co-receptionist,) were Jewish and would have nothing to do with German products. So the cameras were Speed Graphics and the Graflex mono-rail. 5x4-inch was the standard format used. One day a studio shoot was required in 35mm colour and there was not a 35mm camera in the inventory! That's when Ian stepped up and offered his new pride and joy on loan, a Contax D, from Zeiss, Germany. Acceptance of that offer showed that prejudice can be overcome by commercial necessity. Athol actually ended up appreciating its design and called it "my monocle"!

After some years though, working on low pay, Ian got 'itchy feet' and started to look around for more rewarding income. He was a member of a motor scooter club and got a job as a courier for a printing firm. Then after a year he was offered a sales job at a camera shop in Prahran but after a year that business failed and Ian was looking for another job.



**The Kodak Plant at Abbotsford**

He applied for a job at the Kodak plant at Abbotsford. Ian had experience in film processing, particularly Kodak's Ektachrome colour film, (then the E-4 process). With that background he won a job in the colour emulsion testing department. This involved testing all the new emulsion mixes before rejecting or passing them as fit for coating on the particular film base in the production of product to be released for sale, and included mixing chemicals, developers, fixers etc. The chemical constituents used were, due the importance of accuracy and quality, of AR (analytical reagent) quality. Individual chemical components were weighed on a Becker Beam Balance. This balance, or scale, was so sensitive, it would detect the weight of a full stop from a fine point Biro on a cigarette paper!

At Kodak job education was encouraged and sponsored. While there, and fully paid for by the company, Ian attended night school at the RMIT, successfully completing a Certificate course in Photographic Chemistry.

However, as far as advancement went, Ian could not see any great opportunity at Kodak and started as a travelling sales rep with F.J. Upton in Flinders Lane. Frank Upton was not only the Victorian agent for the Sydney based Gardiner & Salmon, importers of quality brands such as Topcon and



Novoflex, he was also one of the many Flinders Lane rag trade merchants. One thing led to another and it was not long before Ian started with NAVA (Nairn Audio Visual Aids) in North Melbourne in photographic sales. Ian was really making decent money. Entertaining then was tax deductible and he was encouraged to use this as he saw fit. Many a big deal was concluded over a long, boozy lunch.

But, as good as photographic sales were, they were only a sideline to the Audio-Visual work at NAVA. It was 1966, Australia was converting to decimal currency and, with NAVA at the forefront of the public education program, they decided to shed photographic sales. They found a buyer, and, at the start of a new week, Ian was then employed by Southern Cross Cameras, located at the shopping plaza of the Southern Cross Hotel. These were boom years and Ian was rubbing shoulders with Melbourne's elite in the photographic industry. Photographers such as Bruno Bernini, Michael Byron, Hans Hassenpflug and Gordon De Lisle, to name just a few, were masters of their craft and regular clients.

While at Southern Cross Cameras, Ian started a newsletter, 'Spotlight' which, after scouring heaps of yellow page phone books to build up a making list, was sent out all over Victoria and Tasmania. Featuring all the latest news on pro gear, it proved highly successful and boosted sales considerably. At Ian's instigation Southern Cross branched out into professional sales in Tasmania, a move that proved to be very lucrative.

Somewhere around this time, the Govt introduced a tax-deductible scheme on leasing. Broadly, what this meant was that if a business leased (or 'rented') some new equipment, all lease, or rental payments were 100% tax deductible. As an example, a \$10,000 item would be leased with a 10-20% residual. In the case of the latter, \$8000 would be totally tax deductible over the (usually) three-year period. At the end of the leasing period, the residual, in this example, \$2000 would be paid to the leasing company and the equipment was then owned by the lessee. Business boomed!

During this time, Ian was also exploring new passions and, due to striking up a friendship with a young pilot giving joy flights, decided to take flying lessons. These led to a pilot's license, owning in succession a couple of light aircraft and of course getting involved in aerial photography including some work for the ABC. Other interests included underground caving – more photography, and getting involved in the Suzuki Four Wheel Drive Club – yet more photography.

Ian's interest in photography almost inevitably led him to collecting photographic items and it was about this time that Ian was introduced to the APCS. He joined only a few years after the Society formed and as was typical for him, threw himself into the running of the Association. There came a time in 1992 when change was needed and he found himself to be the President and the Editor of Back Focus to address some of the issues of the day.

Back at Southern Cross, business continued but the pro photographic industry was changing. Full colour was now the in-thing and sales of colour enlargers and processing gear rocketed. That's when Ian's experience and learning at Kodak came to the fore. He could not only sell the equipment, he could train the client to use it too. However, price maintenance had been abolished, discounting was in and, to safeguard their margins, companies began importing their

own brands. Some were really good, but there was also a fair share of low-quality items. Commercially the parent company also had to sell the lesser items and Ian saw the writing on the wall and after all these years in pro sales, having built up a reputation for trustworthiness, decided that it was time for a complete game change.

Ian had become interested in the emerging PC, (personal computer). One of Ian's clients also had a Tandy franchise and Ian took a punt and bought a "Colour Computer 1". But it was not long before the logic of moving to an IBM Compatible became obvious. A demonstration of DTP (desk top publishing) showed that this was the way of the future and that there was an opportunity to be part of the massive sales area that was sure to follow.

Ian decided that the way the pro photo game was heading was no longer attractive. The PC was starting to take off and sales were booming. Ian teamed up with a friend and went independent – then with another change they picked up the lease on a Greensborough shop located in the 'Golden Mile' of the Greensborough shopping precinct – and sales prospered.

It was time for Ian to do a few things that he had missed out on – and which we now take for granted. Ian and Jean travelled extensively visiting places that most of us only dream of, often meeting up with photographic associates and of course visiting anything to do with aircraft. The list? Simply include every country in the world!

The private story that Ian wrote in early 2019 promised more adventures but tragically it was not to be. After two major surgeries to remove a tumour and it's return, and an expectation that a good recovery was probable, it was only a very short time before a new problem emerged and Ian was to pass away. Ian had lived a very full life, and we have now lost a very good friend...



*A scene at Ian's funeral*

# Using Collectible Cameras

*Inspired by, and a tribute to Ian Carron.*

*Jim Morraitis, PpW.*

It is the week of Ian Carron's funeral; and consequently I have forced myself to finish writing this article. From its inception, the story was based on actual and imagined events, but was meant to be humorous and something that the general Back Focus reader may not be accustomed to, and has progressed to include some interaction with the readers. I have done my best to make it a tribute to Ian. I miss you Ian; Rest in Peace.

As an avid, and long term Canon fan, I have acquired a reasonable collection of Canon cameras and accessories, which I unintentionally started in my mid-teens with a Zorki Leica copy. I am no longer sure why, but at that time, I had a certain obsession with Leicas, so when I saw the Zorki in the window of one of the (long gone) pawn shops in Russell Street Melbourne CBD, I thought that it would be a good, affordable substitute, even though it was not my intention to use it, but simply to admire it, so I purchased it. Around 15 years later, whilst looking at the used cameras in the windows of Michael's Camera Store, I noticed what appeared to be a rather unusual looking Canon; a Vt Deluxe with 50mm f1.8 Serenar lens. As the camera intrigued me quite a bit, I purchased it.

My collection did not progress any further until around 15 years later, where I was able to expand it rather nicely, although I have not added anything to it for some time now, as I basically have everything that I want apart from maybe a Canon Original, S, Mirror Box I, Mirror Box Super Telephoto lens, T-90, EOS 1V, EF 55mm f1.0 L, P8 Projector, Scoopic 16, and maybe a few other bits and pieces.

Again, during my mid-teens, and on many occasions for years after that, I distinctly remember looking through the Canon Products booklet (included with the family Canonet QL19) and admiring, and yearning for many of the products contained therein, especially the 7s, 50mm f0.95, Mirror Box II, and its lenses. Whilst I have managed to fulfil my childhood desire and have been able to collect these items (except for the Mirror Box lenses) sadly, all that I have done with my collectibles is to admire, catalogue, and dust them from time to time.

July 2016 - another round of dusting my collectibles, however, whilst I was lost in this process, with my mind drifting from one random thing to another, I eventually concluded it was very sad that the only thing I do with my cameras, is to wipe the dust from them every now and again! So why don't I buy some film then take some photographs with them!

This excited me, and led me to think about how, when, where, and with whom I could possibly share this experience.

## Pulitzer Prize 2016~2017 Part 1: The Innocence

**Whom:** I mentioned it to Violetta, a colleague of mine and an avid photographer, in a challenging sort of way. Eventually, after a reasonable amount of discussion, counter manoeuvring, and etc, Violetta accepted.

**Where:** Violetta let me decide on the location, so after due consideration I decided that we would start at the lower end of Flinders Lane in Melbourne, and work our way up and around, finishing at Michael's where we would take our rolls of exposed film to be processed.

**How:** Based on my favourite Canon camera, I decided that we would both use Canon 7s, Violetta with a 50mm f0.95 lens, and mine with a Mirror Box II and a 135mm f3.5 lens, yes, I realise it isn't mandatory to use this lens with the Mirror Box, but, hey, my toys!



*Cameras of The Innocence.*

September 2016, Violetta and I went to the city where we purchased two rolls of 35mm 36 exposure Ilford black and white film from Michael's - unfortunately, I do not recall which particular film we purchased.

So with the film gotten, I turned my attention to the cameras, I dusted, cleaned, and tested them as best as I could. Hmm, out of the 19 camera batteries I have, only one worked, so I put that into Violetta's camera to power her light meter. So, what was I to use for light metering? My first thought was the Wesson light meter in my collection (one of two non-Canons item in my collection; as I am rather fond of Art Deco things, and the Wesson has a distinct Art-Deco design, I had to have it). But the film speed dial only goes up to 200ASA, and the film we had purchased was 400ISO - so much for that idea! Well, I did some Googling, and eventually found an app called myLightMeter on the Apple Store, which I downloaded to my phone, tested it by comparing the readings to a modern camera, and found that it would be more than adequate for our purposes.

**When:** Our expedition finally happened on the 7th of January 2017! I picked up Violetta at 7:30am, we then drove into the city and eventually found a parking spot, which was quite difficult, even at 8:00am on a Saturday morning!

We went to a café for some breakfast, and for the all-important loading the Canons with film, which I had never done before although I had read the instructions several months before. I loaded mine first noting that the little film transport button rotated as I advanced the film advance lever, all good. Now that I was confident in my ability to load the film properly, I proceeded to load Violetta's 7s, using exactly the same procedure as before, watching the film transport button rotating as I advanced the film lever, so once again, all good.

With breakfast finished, and cameras loaded, we walked up Flinders Lane, each of us independently looking for the winning picture. Despite me lugging both cameras in a bag, and trying to juggle my mobile phone to use the myLightMeter app, I still managed to take the first picture of the day, and then immediately followed up with my first, obvious, mistake for the day, which was to tell Violetta that I had just taken the Pulitzer Prize winning photograph for 2017, and, to this day, Violetta has not let me forget that comment! We did lots of walking, and searching for the elusive best shot; I ended up taking 11 photos, which was ten more than I needed, as



I had already taken the winning pic, but Violetta insisted on taking the whole roll of 36 exposures, just to increase her chances of having the winning shot! As planned, we finished up at Michael's – all we had to do was rewind the film in both cameras, and have it processed.

Unfortunately, it is at this time that my recollection starts, or continues, to get a little hazy, but what follows are the facts, as I remember them!

Whilst we waited, at the front of Michaels, I pressed the film rewind button on my camera, pulled out the rewind lever, and rewound the film into the cassette, noting that the film rewind button was rotating during this operation. I continued until it stopped, I then opened the camera back and removed the film cassette.

I proceeded to do exactly the same to Violetta's camera, this time noting that the film rewind button did not rotate ..... oh dear! I mentioned this to Violetta, quickly adding that the film would most likely be OK, and that it probably was just a minor defect with the camera, as in my defence, I had never used either of them and was quite unfamiliar with them. It was at this time that a rather unusual expression appeared on Violetta's face and after all this time, I am still not sure if Violetta believed me, or even if my story was believable. Unfortunately, there wasn't much else to do except to have Michael's process both films, and for the digital scans to be emailed to me.

I had previously considered processing the films at home, as I had the equipment, and there was a slim chance that I could recall how to process them, however, I concluded that it was not worth the effort and cost to purchase the chemicals, so yes, I took the easy way out, and had Michael's do it.

I received the scanned images a few days later, an impressive service to be sure. I selected the downloaded link in the email notification, and a few minutes later was staring at two folders on my desktop. I opened the first one, and sure enough, there were ten perfectly exposed Pulitzer Prize winning photographs contained therein, all mine of course.

Then, the second folder – I must admit that in my anticipation, I did feel rather nauseous as to what, if anything, it would contain. I opened it, and just as I suspected it contained nothing; no pics, no files, no scans, no anything! It became all too apparent to me, that someone had not loaded the film into the camera correctly!

I can't quite remember exactly what transpired when I explained all this to Violetta, but I can tell you that she still vilifies, and reminds me of it to this day!

Despite me being the only contestant to have a winning, or any photograph for submission, Violetta would not accept the Pulitzer Prize being awarded to me. In addition, she consequentially accused me of wilfully sabotaging her camera, as well as her efforts, and demanded that another competition be held.

Insulted, humiliated and quite despondent, I had no choice but to accept Violetta's request; I have named this part of the competition "The Revenging".

## **Pulitzer Prize 2016~2019 Part 2: The Revenging**

April 2019 – Nearly three years had lapsed since I first thought of actually using my collectible cameras, and I have finally come a tiny step closer to fulfilling my insane idea of

a photographic competition using them! Without going into details, you can be sure that Violetta and I went through our usual motions of arguing and nagging in trying to determine the date for our next outing, so I won't bore you with that!

Violetta was to use the same Canon 7s (and 50mm f0.95 lens) that I used in Part One of this story, which she commonly refers to as the "non-sabotaged camera" whilst I used my Vt Deluxe with a 35mm f2.8 lens, and separate viewfinder (my toys).

We did the usual pick up early and drive to the city, more or less retracing our previous ordeal, having breakfast at a different but much nicer café.

I had loaded the film into both of the cameras the night before, yes, properly I might add for any sceptics whom may be reading this!



### ***Changed camera of The Revenging***

One might find this difficult to believe, or even understand for that matter because I certainly can't, but, one of the problems I experienced during our outing was that I had to take my phone off silent (its normal setting) as I was expecting a rather important phone call, so I needed to hear it ringing. An effect of this was that every time I took a light reading with the myLightMetter app, it would make a sound of a shutter being released, just like a camera does. So, whilst I would take mental notes of the shutter speed and aperture from the app, I would then proceed to take the picture, without having changed the settings on the camera! Somehow, I had convinced myself that by simply reading the settings from the app and hearing the shutter being actuated, that the correct settings would then miraculously, and automatically be set on the camera!

Apparently, incidents such as this are a sign of getting old, and Violetta tends to agree.

We then spent several hours walking around the city taking various pictures of anything that took our interest, and whilst we did not have sufficient time to take the film to Michael's, I made the trip into the city a week or so later and left the film with them. Then, on the 24th of June 2019 I received an email from Michael's with a link to download the picture files, and a short time later I had two folders on my desktop, just like last time.

The suspense was killing me – would both folders contain pictures, or only one like last time? I opened the first folder, it contained 20 pictures, all mine, all perfect, but what of the other folder?

I had no choice but to open it; I double clicked on it and saw, much to my relief, that it contained 35 pictures, thank goodness!

I emailed Violetta her pictures for her review, and so, with nothing else to do, we then started arguing about the best method of picking the winning photograph. Whilst this discussion quickly escalated to nowhere, we at least eliminated our spouses from our list, but absolutely no suggestion for an appropriate judge! We eventually agreed that we would each pick our favourite five pictures, and that the judge would pick one winning picture, as well as a runner-up.

The selection of a potential judge was left up to me, I gave it some thought, and eventually I suggested to Violetta that Ian Carron would be an ideal candidate. That did not sit well with Violetta, as Ian and I are friends, so I added that we should retain the original file names of the pictures, and to email them to Ian in one email, so that it would be impossible for anyone to identify which one of us took the pictures. Surprisingly, and without too much stress we agreed.

### **Pulitzer Prize 2016~20 (tba) Part 3: Battle of the Sexless.**

Whilst I do not need to prove my prowess as a prize winning photographer to anyone, especially myself, it was always my intention that this contest would be held over a reasonable period of perhaps 12 months (but certainly not over a period of years as it has)

and utilising different cameras and film.

So the next challenge will be to utilise more modern cameras than previously, and colour film.

Violetta will be using a Canon F1 with Eye Level Finder and FD 24mm f2.8 wide angle lens, whilst I will use a Canon A1 with FD 20mm f2.8 wide angle lens.



**Cameras of Battle of the Sexless**

### **Pulitzer Prize 2016~20 (tba) Part 4: The Sleepening**

There may be a final film camera challenge, again with more modern cameras, most likely EOS types, but yet to be determined models and lenses.

### **Pulitzer Prize Epilogue:**

Whilst Ian's decision is final, and has sort of been accepted by both parties, I thought that we may be able to take this competition one step further, and ask the members if they would care to vote for their first and second favourite pictures. A postcard is included with this edition of Back Focus, one side shows the ten submitted pictures, marked A to J. All you have to do is select your favourite, and second favourite pictures, mark them 1 and 2 respectively, write your name on the other side (optional), pop a postage stamp on it and post it. Alternatively, you can scan your postcard, and email it to [epping@minutemanpress.com](mailto:epping@minutemanpress.com)

If you wish to see these photos at a higher resolution you can go to the APCS website and download them from [www.apcosciety.com.au/competition](http://www.apcosciety.com.au/competition) The way that you do that will depend on the computer that you use, but generally right-click on each filename and follow the options.

The results will be published in a future Back Focus, along with the name/s of the winners as selected by Ian and possibly, with the next thrilling instalment to this article.



***This is the winning picture, as judged by Ian and taken by (name withheld)***



***This is the runner up picture as judged by Ian and taken by (name withheld)***

Finally, I thank Ian for his judging prowess, for indulging my silliness with this article, and for the effort he has always put into Back Focus and the Society in general.

I also thank Violetta for her sense of sensibility and for being a worthy and talented adversary.

***Ian thought it would be a good idea to include a picture of myself posing with my bike for this article, so here it is – picture credit to Violetta, with many thanks as always.***





# Innovative Designs

*Trend setters - or just oddities?*

I never cease to wonder at the vast range of cameras that have appeared on the market over the years, and particularly at the beautiful workmanship and some of the clever and innovative designs which have come and gone. Some of those early designs, highly innovative and original for their time, have come to be accepted features in the generations of cameras that followed, whereas others never really caught on, and eventually just faded away.

In this article I would like to share with other readers some of the more unusual designs out of my own collection. Some are a radically innovative design whilst others merely exhibit one or more minor novel features. Some made history while others just faded into oblivion, some sold in large numbers while others never "got off the ground", some attempted to get around some patent or other at the time, some just tried to do something different, and some are merely copies of what was in itself an innovative design. What do they all have in common? They all have a place on my collector's shelves, and at least to my mind all of them are interesting and worth remembering.

I am going to start with some unusual designs from Voigtländer, the oldest surviving brand name in photography, with a history going back to 1756. For the benefit of those who are new to photographic history the first Voigtländer camera was the famous 'Metall Kamera' which appeared in 1840, the year after the invention of photography was announced to the world. Unfortunately I don't have one (although I wish I did) but the Metall Kamera was a sensation at the time, being the world's first all metal camera, the world's first camera with rack and pinion focusing, and most important of all the world's first camera with a mathematically computed lens, the famous Petzval portrait lens, designed by Professor Dr. Joseph Petzval with the then sensational maximum relative aperture of 1:3.7, some 16 times faster than any photographic lens before it. Voigtländer remained innovators and pioneers throughout their long and proud history, with a reputation for fine optics. I hope the few examples I am about to describe will illustrate what I mean.

## The Voigtländer 'Brilliant' TLR.

By the mid 1930's the Twin Lens Reflex had firmly established itself as a favoured working tool with many professional photographers. Rollei had a stranglehold on the TLR market, and of course other manufacturers tried to get a slice of the action, including Zeiss and others. The Rolleis focused by moving the entire front panel of the camera, on which both the taking and viewing lenses were mounted, which was an effective but relatively complex and therefore expensive design.

Voigtländer had been selling its 'Brilliant' camera since about 1933, which did away with the moving front panel, and which therefore had to be manually focused. That certainly made it cheaper, but it also placed it at a huge disadvantage



compared to the 'real' TLR's. And so Voigtländer came up with a novel approach to the problem with the 'Focusing Brilliant' of 1937. The viewing and taking lenses were interconnected by means of intermeshing gears, as used in the more expensive 'Superb' of 1933 (see next item). If either lens was turned then the other one also turned, in the opposite direction of course, so that both lenses focused simultaneously and the result was a very effective but simpler and less expensive TLR. The one I have has the famous Heliar lens.



## The Brilliant's side compartment

But that was not the only novel feature of the 'Focusing Brilliant'. It also had a little side compartment which held a yellow filter as well as an extinction exposure meter. The latter was like a filter, which could be fitted over the viewing lens. The Extinction Meter had a series of dots. One picked out the faintest dot, i.e. the one which was only just visible, noted the number opposite it, and then referred to the table inside the little compartment to work out the exposure. I have tried it – it still works well!

## Voigtländer 'Superb' TLR.



Voigtländer also decided to go one step further, and around 1933 they designed a top quality TLR to compete directly with the top of the range Rolleiflex of its day. The resulting 'Superb' not only incorporated the same meshing gear focusing system already described for the 'Focusing Brilliant' above, but a number of other innovative features as well.

The most striking of these features was the approach to parallax compensation. As you focus the top (viewing) lens tilts

downwards, so that its field of view always coincides exactly with that of the taking lens.

Another novel feature was a little prism (seen jutting out on the extreme right) through which the number set on the rim set shutter could be read from the viewing/taking position. That meant of course that the figures on the shutter speed dial were engraved in mirror reverse. The little prism can be swung out of the way for cleaning. Also, the film was wound from side to side instead of bottom to top.



**Note the top lens angle to compensate for parallax.**

## The Voigtländer 'Perkeo'.

By the early 1930's 35mm photography had well and truly arrived via the then already famous Leica, and this created great interest in the 'small negative, large print' concept. But not everyone was convinced that 35mm cine film was the way to go. Another issue was focusing. True, the Leica around this time introduced the coupled rangefinder, but for candid photography the amount of time taken focusing often made the intended subject uneasy, and the intended spontaneity vanished.

Voigtländer's answer was the 'Perkeo' of 1932. The Perkeo used size 127 film, which was then widely available, and took 16 3x4 cm negatives per roll of film, i.e. what we today would call a 'size 127 half frame'. The unusual feature, which also appeared on other Voigtländer cameras of this era, was the focusing arrangement. The camera could be focused whilst closed by turning the knurled knob on the top deck. This could be done with the camera either open or closed. There was a spring-loaded mechanism for opening the camera front – you pressed a little knob and the front panel snapped into place. The camera was already pre-focused and the intrepid photographer could take the photo before his subject became aware of what he/she was up to. But this had to be done in such a way that the bellows did not implode, and this was achieved by way of four ingenious small pressure equalisation valves, two of which can be seen as small rings on the top of the camera.

*Ed. note: Voigtlander continued the "Perkeo" name (meaning 'pigmy') through the 1950s with a very successful series of cameras that produced 6x6 negatives on 120 film - 3 basic models with variations in rangefinders, lenses and shutters.*

## The Voigtländer 'Vitessa'

These days we are all familiar with motor drives for those occasions when the photographer wishes to shoot rapidly, but back in the 1950's the lever wind was still fairly new, and motor drive was restricted to a very few specialised cameras such as the Robot. Voigtländer solved this problem in a unique way with the so-called 'barndoor' Vitessa of 1950. It was a 35mm bellows camera with an unusual design for the opening front, using two 'barndoors'.



The film was wound and the shutter cocked by pressing down on a plunger on top of the camera. Thus, you could wind film/cock shutter with the index finger of your left hand whilst 'firing away' with your other index finger. There were

several different versions of the Vitessa, which was a high-quality camera in its day, with top of the range models such as the one illustrated (The Vitessa L of 1954) featuring the outstanding Ultron f2/50 lens. Some models featured automatic parallax correction, and a later 'fixed front' (rather than 'barndoor') version featured interchangeable lenses.

## The Voigtländer 'Vitrona'.

Today we are used to having electronic flash built into even quite cheap cameras, but back in the late 1950's and early 1960's electronic flashguns were expensive and for that reason still fairly uncommon. When Voigtländer introduced the Vitrona in 1964 it created something of a sensation, being the world's first camera with built in electronic flash. Apart from the concept of built in electronic flash being quite new



at the time, an unusual aspect of the Vitrona design is the 'handle' under the camera, which contains the batteries. The Vitrona was expensive in its day, and for that reason relatively few were made and sold. Also, owners often removed the battery handle from the camera, presumably either because the camera was being used without flash, or to prevent corrosion damage from leaking batteries. Whatever the reason, finding a Vitrona complete with battery handle is not that easy today.

## The Zeiss 'Movikon 8'.

I am not really a collector of Movie Cameras, but as I have been dealing with German designs, I thought I might conclude today's list of unusual designs with the Zeiss Movikon 8 Movie Camera of around 1952. The horizontal design is unusual because of the way the lens is orientated at right angles to



most other designs. It means that the camera is held like most still cameras, and that may be the explanation as to why it was designed this way. The film had to undergo a 900 'twist' before entering the gate at the centre of the photograph, and then another 900 twist in the opposite direction onto the take up spool.

*Ed. note: There were several versions of the unusual form of the Movikon, including various lenses, a couple of different meters, body colours and even name variations - the most common variant being the Movinette.*

I hope that readers will have found these unusual designs interesting, as I do. The Germans were by no means the only people to come up with innovative designs, and in future continuations of this article I hope to show some equally interesting cameras from Japan, China, UK and the USA.



# Roama Projector

*A Post-WW2 Melbourne Product - a child's toy - but now a collectible*

*John Fleming*

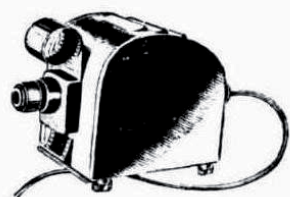
A product of the post-war manufacturing boom, the 'Roama' was a small toy film strip projector made in Melbourne from about 1951. Simply fabricated from pressed sheet metal, it seems to have sold reasonably well to an expanding domestic market often hampered by product shortages. A 1954 advertisement offers the unit, complete with six 35 mm filmstrips, for 60 Shillings (\$6.00) which was a fair sum for any toy then.

The 'Roama' was made by Maxcraft Projection Manufacturing Company Pty Ltd operating from premises at 131 Lennox St, Richmond, an inner Melbourne suburb. The phone number was JA 6928, taken over from the previous occupants, The Shirley Doll Co. Number 131 was a shop and workroom, 3 doors North of the Highett St intersection, on the East side of Lennox St. Prior to the Shirley Doll Co (before 1947) the shop and premises had been a grocers, a fruiterer and/or a fuel merchant with the wood yard next door. A 1955 Directory of Victoria shows Maxcraft Projection Company listed there but by 1960 gone. Around 1962 a vast tract of land from Highett St. on the East side of Lennox St. was reclaimed by the State Housing Commission for high rise flats. Where the 'Roama' projector premises once stood is now the edge of open parkland. Despite intensive research, so far we have been unable to locate a photograph of the old 131 Lennox St. building.



Examining the cute little projector reveals it's clearly intended as a toy and the simple construction and accompanying cartoon 35 mm film strips and box artwork reinforce this. A friction roller on a shaft, operated by a large knob (on early models) pulls the film down for subsequent frames. An adhesive sticker warns not to turn backwards. The illumination and optical system is very rudimentary—a 40 watt frosted (or 'pearl') domestic 240 volt

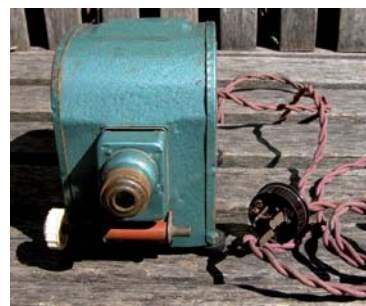
bayonet bulb and there is that's it! The sheet metal pressings are fairly rough and may even have been done with a mechanically operated fly press. There are sliced louvres top and bottom for lamp ventilation and the units have 4 rubber 'feet' secured by self tapping screws to lift the 'Roama' and provide some ingress for air. The rear of the projector carries a handsome oval transfer decal proudly proclaiming 'This is all Australian'.



## ROAMA PROJECTORS

The Strip Film Projector for the children. Ideal for kiddies' parties and family evenings. Just plug it in to your power point. A child can operate it with ease. Price ..... 60/-  
36 different strip films available. Price ..... 4/- each

Variations abound, especially with the colour of the hammer-tone enamel paint. Early ones seem mostly green, then there were purple-brown colours and many later ones are sprayed metallic blue. Crinkle enamel is also seen. The film strip advance knob on earlier models came in several different colours, probably using what was available. Later versions (tagged the Series 5A by the manufacturer) employed external red rubber rollers at front under the lens assembly and had a standard white radio knob (again, various styles) grub screwed to a length of tubular steel shafting. According to the announcement on a later carton this was the 'Rubbermatic' drive! The power cord was usually standard white 'figure of 8' twin plastic lamp wire but a few other examples seen were wired with old style twisted brown cotton covered, rubber insulated, twin flex. We even see variations in the mains connector, most wired with a 3 pin plug but a few appear to have had a lamp BC socket type plug to perhaps fit into a reading light or such.



There wasn't an earth wire connected at any stage as far as I can ascertain. The hope of offering this as a child's toy today would be fairly remote! However, it wasn't quite the threat of electrocution that saw a safety concern raised in the press.

## The "Rubbermatic Drive" version - Series 5A

In 1953 the secretary of the National Safety Council of Australia warned 'Toy projectors using 35 mm film are a serious fire hazard....' and 'Parents should not allow children to use these toys; if they have one at home they should destroy it'. A day or two later the statement was retracted when it was pointed out by many these projectors used film strips printed on Triacetate 'Safety Film'—NOT Nitrate cine commercial release prints! As often happens though; the other half of this tale involves the people behind the 'Roama' venture.

## Fire Danger from Toy

Toy cine projectors using 35 mm. film are a serious fire hazard and should be destroyed.

The secretary of the National Safety Council of Australia (Mr. R. S. Forbes) gave this warning yesterday.

"Some stores are selling the projectors, but not everyone knows the 35 mm. film is highly inflammable," he said.

"With the use of an electric light globe or a candle there are all the ingredients for a serious fire hazard.

"Parents should not allow children to use the toys; if they have one at home they should destroy it."

## Safety Film for Toys

A non-inflammable safety film for use in toy cine projectors has been available on the market since 1940, and the use of such film is comparatively safe.

The secretary of the National Safety Council (Mr. R. S. Forbes) said this yesterday in commenting on his remarks published in "The Age" on Saturday. Mr. Forbes's original statement referred to ordinary 35mm. film.

Safety film is marked with the word "Safety" or the letter "S" next to the sprocket holes.



Ross Stanley Boys was born in 1920, his father being Henry Hilton Boys who was married in July 1917 to Lillian Maude Day (possibly Davis) and they resided then in Port Melbourne. Henry had been a farmer but found making a living on the land was hard going. By the mid 1920s he was offering a saw blade sharpening & resetting service. Around the same time his wife urged him to take on a large house at 407 Auburn Rd, Hawthorn as they would be better off taking in paying boarders. Things turned bad for Henry though as his wife Lillian became infatuated with one of the lodgers with more substantial means (and a car!) and Henry filed for divorce in 1928. By this stage the couple had 3 children. Ross went on to study mechanical engineering and by 1940, aged 20, was involved in the manufacturing industry for the war effort. When peace arrived, like so many young men then, he wanted to resume normal life and make a way for himself.

Around 1949 or so, and maybe utilising some knowledge gained during the war years, Ross Boys designed a simple, easily made 'tin toy' strip film projector which he reasoned would sell well to a new league of post-war children. Import restrictions in those early days also meant a locally made product should be a success. To execute the artwork for a sales carton and to draw some cartoon cards for the planned 35 mm film strips, Ross engaged a promising young graphic artist named Anthony John Harvey-Tony as he was best known. Barely 20, Tony was saving madly to pay for a sea passage to London to further his career. To help draw the cartoon figures in various poses, he fashioned an adjustable wire dummy model which he dressed with his father's suit, ties and shirts, coat and trousers, hat etc! Apart from the carton artwork, Tony designed the transfer decals for the projector and of course, drew a series of 36 original cartoon strips with captions, one being 'Clive-Ace Pilot'.



**Anthony John Harvey**

With the payment from this 'Roama' commission and another assignment for Fortuna Fabrics in Sydney, Tony set sail from Melbourne during February 1951, arriving in London as the Festival of Britain was in full swing. There he found acceptance of his outstanding and innovative work and had cartoons published by leading magazines in America and Britain, including 'Punch'. Upon his return to Melbourne he married and soon had 2 daughters.



**A frame from "Clive-Ace Pilot"**

His artwork from the early 1950s included a series of totally Australian themed Christmas cards. Very well received at the time, they were a break from the traditional 'white Christmas/Northern Hemisphere' type of card that was at odds with a hot and sunny Aussie December. Tony Harvey went on to have a very long and brilliant career as a graphic



artist, designer, print maker, art teacher and technical manual publisher.

From about 1957 fabrication and assembly of the 'Roama' was done at the 407 Auburn Rd, Hawthorn home of Ross Boys. He also had taken a small office in the 'Motor Bolts Co' building close to the Hawthorn Town Hall at 364 Burwood Rd, and registered the name 'Boys Trading and Agency Co Pty Ltd'.

**A typical filmstrip**



**Australian-themed Christmas Cards by Harvey**



The projector was now officially the 'Series 5A' featuring the new 'Rubbermatic' drive! The end of this project would appear to have occurred around 1959 and most certainly had ceased by 1960 as Ross Stanley Boys died that year at the very young age of 40. His father, Henry Hilton Boys outlived him by one year, surviving until age 75 in 1961. As noted, Tony Harvey, the young graphic artist who contributed his talents to the venture, was able to use the proceeds of that commission in 1951 to help launch his career. One of Tony's daughters, Tracy Harvey, is a well known actress, comedienne and TV presenter and told me recently "Dad was a genius!" Many examples of his innovative art remain to verify that. Tony passed away in 2014, aged 84.

There is no doubt the cute little 'Roama', whilst basically meant as a toy, is now reasonably rare (especially in good condition, with the carton and some original Tony Harvey film strips) and makes a very attractive Australian made display piece.

**The Roama Toy Projector**



**A nice display piece!**



# A Premo model C, Murtoa and Lubeck

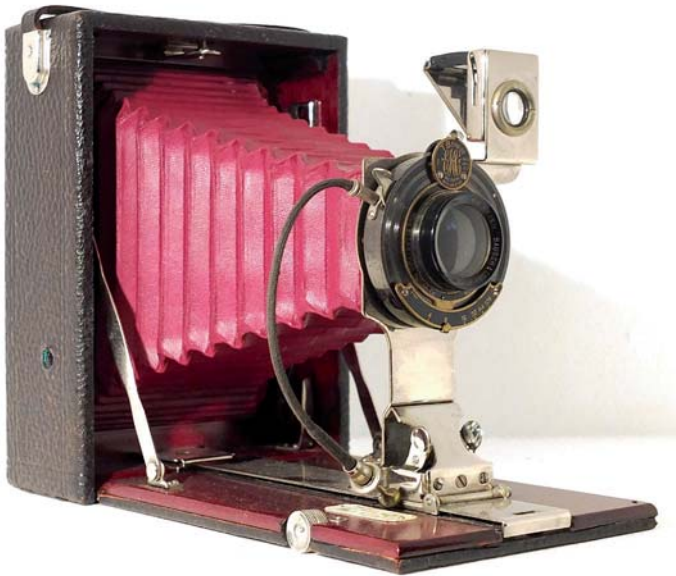
## *What's the connection?*

Some time back I received a phone call asking if I was interested in a box of glass plates and a couple of old cameras? Of course I said yes and they duly arrived on my doorstep. There were both unused plates in boxes and processed plates carefully wrapped with paper between each plate. The cameras were a Premo model C, a Kodak 2A box and a Yen camera. The Premo was in its original box with double dark

## *A story as related by our late Roger Burrows*

slides and instructions. The plate size was  $3\frac{1}{4} \times 5\frac{1}{2}$  and the box of new plates had only about a dozen having been used, which tallies with the processed plates found in the box. The other plates were  $4\frac{3}{4} \times 6\frac{1}{2}$  and  $3\frac{1}{4} \times 4\frac{1}{4}$ , so three different cameras had been used.

I carefully cleaned what I could and then photographed the plates and printed the results (This couple here are thought to be from 1914). This was also when I made an exciting discovery. Remember the careful wrapping? Well a couple of them were envelopes with names and addresses and one contained an invoice from the local blacksmith and wheelwright in Murtoa to the family for work done over the last six months. So, I had a family name, an address and a date. What more could an historian want? The other clues were in the wedding shots and the dress styles and a young soldier back from the war to marry his bride.



The other plates showed a Sunday school class, picnics and rural life in the early 20th century around Lubeck and Murtoa.

I contacted the Murtoa Historical Society and sent copies to them. There were a couple of relatives still around, though well in their nineties. They were very excited to receive them. Sometimes I think we get carried away with collecting of the hardware and forget about the ephemera. But surely that's what a camera is all about: recording events and people and places. So, when you find some old glass plates, photograph them, reverse the images and print them. Who knows what you will find?





# The Corfield Periflex, an English Classic

Story and photographs by PHSNE member Richard Berbiar

A very interesting and unusual 35mm camera to come out of England is the Corfield Periflex, manufactured by K.G. Corfield Ltd. from 1953-1955 with subsequent models produced until the 1960s.



The Periflex was named after its unique periscope focusing mechanism. It was located on top of the camera, and a small knob on the side lowered the periscope into the light path between the lens and the film.

This allowed the user to view the central part of the image through the lens, and focus the image using the focusing ring on the front of the lens. The knob was then released, with the periscope retracting to its original position.

The operation of the camera is complex and awkward, requiring three steps. First, the film wind knob on the top right side is turned counterclockwise to advance the film. Next, the shutter winding knob located to the right of the periscope, which serves a dual purpose, is turned clockwise to activate the shutter. The knob is then lifted and turned to the desired shutter speed. This is another example of a left handed orientation, similar to the Perflex Speed Camera.

Periflex came with a Corfield Lumar f/3.5/50mm screw mount lens and featured a cloth focal plane shutter providing

speeds from 1/30 to 1/1000 second plus B. The first two hundred or so cameras were covered in brown pigskin which stained easily, so subsequent models were covered with black leather. In the first and second versions, the top and base plates were made of black anodized stamped aluminum, with the serial number, shutter speed, and camera name etched into the top plate.

The third version top and bottom plates were replaced with bright aluminum and an engraved dial placed under the shutter winding knob.

In addition, "Corfield Periflex-England" was now engraved on the front of the periscope housing.

The Periflex line saw several cosmetic changes during the first five years, with major design changes taking place in 1958.

Through expansion came a shortage of capital, and in 1961 Corfield gave up controlling interest in the company to the giant brewer Guinness & Co.

New models were introduced, but by 1963 it was evident that the competition from Japan and Germany were producing more updated 35mm cameras. The camera production line was dismantled and was re-tooled to produce automotive parts. The Corfield era had come to an end.



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# Sony Mavica MVC-5000

*Video cameras - transition to digital*

*Peter Collens*

Having read an article in Back Focus (No 113, June 2019) "Digital is no longer a Dirty Word" by John Wade, and being a cold Winter week in Melbourne, I was encouraged to write about a camera I found a few years ago that filled a small window in photographic time. However, in that time it witnessed and captured some amazing events. It wasn't a film camera nor a digital camera, and it had both Canon and Sony branding on the lens.

Also, this year we were reminded of the student protests in Tiananmen Square 30 years ago in 1989. It was an event that received World attention. Cable News Network (CNN) and Sony played an important role in delivering the first still photographic image of a student stopping an advancing tank. There are several iconic



images of that event but the first image to be published was transmitted by telephone for CNN which avoided the blockade of physical film and video which had to be smuggled through the airport and Hong Kong. Those first still images captured the World's attention even though today, they are lost among the many images and movie footage published in the days following China's crackdown.

Back in 1981 Sony developed the MAVICA system (Magnetic Video Camera) which recorded still video images and used magnetic video floppy disks.

In 1984 Canon and Sony transmitted electronic images from the Los Angeles Olympics to Tokyo and approximately 50 of these images were published. Then it took about 6 minutes for B&W and around 25 minutes for a colour image to be transmitted.

In 1986 Canon released the first commercial 'Still Video Camera' called RC701 (Realtime Camera). In 1987 a Canon still video camera was used by a news reporter at a baseball game in Minneapolis, who then wired the images via a telephone line to the USA Today. The first electronic picture of two baseball fans was published the following day, the 19th October 1987 on the front page of USA Today.

By 1989 Sony had developed a Digital Image Handler the DIH 2000 that could capture single frame images from any still or movie video camera. The DIH 2000 was also able to transmit the image data over a telephone line in as little as ten seconds. Along with the DIH 2000, Sony had also released prototypes of two new professional ProMAVICA cameras the MVC-2000 and MVC-5000. The MVC-5000 had an interchangeable lens system and could produce high quality pictures with a horizontal resolution of 500 lines.

In 1989 CNN was using the MVC-5000 in Beijing with the DIH 2000. There are a number of sources that indicate the MVC-5000 was in use in 1989 before the commercial release which appears to have been in 1990. According to some sources, including CNN, the MVC-5000 was used to capture the first still images of the 'Tank Man' that were delivered by CNN hours before any other news agency. However, the CNN Senior Photographer, Jonathan Schaer, only recalls using his Sony BVU 330 Video Camera at the time, and not the MVC-5000. Maybe we will never know which camera those images really came from, but subsequently Sony won a special 'Emmy Award', 'Still-Picture Transmission Technology for News' in October 1990 honouring its role in transmitting the 'Tank Man' pictures.

In the early 90's Sony's still image technologies were in regular use by newspapers and agencies to capture and transmit images where a tight deadline or being the first-to-publish was paramount. This included the military and news units covering the Gulf War.

In 1990, the Sony ProMavica Professional Still Video System included:



- MVC-5000 Camera
- MVP-660 Video Playback
- MVR-5600 Video Recorder and Playback with a monitor
- DIH 2000 Digital image handler for transmission
- MCL-913T 9.5-123.5mm Lens made by Canon
- MCL- 05H wide 5mm Lens (later addition - 1990?)
- MCL- 06T wide 6.5mm lens (later addition - 1990?)
- MCL-200N Adapter for selected 35mm Nikon mount lenses (generally with focal length of 400mm and more)
- MFL-30 electronic flash

This was expensive gear in its day with the camera and 9.5 – 123.5mm zoom lens having a price tag around US\$10,000 and the DIH 2000 over US\$20,000.

The camera is an imposing unit with the body weighing in at 1.6 kg and 3.0kg including a standard battery and the 913T zoom lens.

The camera used the Still Video 2" floppy disk for analogue recording which was pretty much the standard recording medium in the late 80's and early 90's. The disk could hold 50 images. Other electronic cameras that used the 2" floppy disk included:

Canon XAP shot (Canon ION)  
Fuji ES-30TW  
Nikon QV-1000C  
Panasonic AG-ES10  
Sony MVC-C1  
Yashica V-70

Canon RC-470  
Konica KC-300  
Olympus VC-100  
Sony MVC-A10  
Sony MVC-A7AF



A still video disk has 52 tracks with 50 being assigned for video and/or audio recording. The ProMavica records either as a 'Frame' or 'Field'. When Frame is selected the video is recorded on two tracks giving 25 images per disk and where Field is selected each image is recorded on one track giving the maximum of 50 images on a disk (pictures recorded on two tracks are of higher quality and detail). You can also record sound of up to 9.6 seconds on each track, and audio can be recorded at the same time as the image.

The MVC-5000 captured images on two 2/3" CCD image sensors, one for luminance, the other for chrominance. These images could be viewed by connection to a monitor as, unlike digital cameras that followed, the ProMavica MVC-5000 did not have an LCD screen.

There is no playback function in this camera and the only way to view images from the camera is to see them live on

a monitor through the video-out port, while taking an image i.e. in a laboratory or studio. Otherwise you need a 2" floppy drive reader.

The camera is based on a single lens reflex design with indicators placed in the viewfinder as well as a display window. Settings include WB: Auto/manual White Balance, AE: Programmed AE with shutter speed, aperture or manual controls, EV: +/- 3 EV in 0.5 steps. Sensitivity for 'Frame' is equivalent to ISO 100 and 'Field' is ISO 200. The mechanical shutter speed is 1/8 – 1/2000 sec. It had a built-in microphone that allowed the photographer to record a message at the time each image was taken.

The battery is a standard Sony NP-55 which was supplied with a large number of Sony video camera models over many years, and generic brands can be still obtained today.

It is difficult to know how many of these cameras were made. It appears there was early production in 1989 in parallel with the MVC-2000 supplying just government and the media. The model may not have been broadly available through retail channels before 1990 and then in 1992 it was replaced by the ProMavica MVC-7000. Serial numbers appear to run from 10001 to 11000, however this includes all models MVC-2000, MVC-5000 and MVC-7000. So, in all, maybe 1000 units were produced over the three models. Lenses were also numbered between 10001 and 11000 but it appears these did not match the body numbers. The two I have seen have serial numbers 10268 and 10985 respectively matched with lens numbers 10419 and 10358. One unit is very well used and inscribed with 'C Team'.





# Back Focus No. 114 - October 2019 - Contents



## My Story - Ian Carron -1938-2019

*Taken from a book that Ian wrote earlier this year – a biographical story*



## Using Collectible Cameras

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Photograph courtesy of Lorne Shields



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**OUR COVER:** With tongue-in-cheek our caption might read: "Speeding down the highway." But this unidentified picture is from 1867 when the gentry were thrilled to go as fast as their legs would peddle. Lorne Shields contributed this image from his special archive. Lorne comments: "These early velocipedes were amongst the first cycles to have pedal-driven cranks mounted to the front-wheel hub that led to the practical bicycle. These appear to be quality blacksmith-made examples produced by the same person. The man at the right is leaning back which is an accurate portrayal of a contemporary rider's positioning. It is highly unusual to find photographs of multiple velocipedes of that era with riders mounted."



Photograph Courtesy of Lorne Shields

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# CLINT HRYHORIJW PRESIDENT'S MESSAGE



portrait by Robert Lansdale

## Better Days Ahead!

This is probably the fourth or fifth version of this president's message. My first efforts back in March, after gentle urging from Editor Bob Lansdale, were all gloom and doom along the lines of burning old-box-cameras for warmth and fuel or beating old Nikons (certainly not old Canons) into plowshares to grow our own food.

But if you believe anything they tell us, things seem to be getting better. Perhaps not today, the day after Mothers' Day, with an inch of snow on the neighbour's bright red tulips, but this week is better than last week.... which was better than the one before. Fewer people are coming down with C-19; these are unprecedented times for the world as well as for us at the PHSC.

The management of the PHSC continues almost uninterrupted. Thank goodness for our newly-minted Program Coordinator and Zoom-Meister Celio Barreto for getting our executive meetings on-line, and helping out those of us who were Zoom-challenged.

We've had to cancel events, lots of them, like our March auction, May Photo Fair and monthly speaker programs. We're not sure when we'll be able to get back to normal. Watch our website, [www.PHSC.ca](http://www.PHSC.ca) and the PHSC Newsletter for updates.

That's why our communications platforms are so important now. Our social media on *Facebook* is enjoying an uptick, while our *Instagram* has shot through the roof. And nothing can stop the email *Newsletter*; your May edition will be arriving shortly. Most importantly, for the sake of safety in reducing the physical contact involved in producing a hard copy, this very publication, our quarterly PHSC Journal, has been sent to you, our members, as a PDF file. Please enjoy the interesting and inspiring content, along with all the colour that such on-line publishing allows.

We're pretty sure you'll want to share this edition of the journal with friends, relatives and colleagues, and we would encourage you to do so. At the same time, please remind them that at \$35 per year, the membership which gets them this information-packed journal four times a year is the best deal in town.

Until we meet again in person, *inveniam viam aut faciam* [I shall find my way or make one.]

CLINT HRYHORIJW, PRESIDENT  
phone: 416.622.9494 e-mail: 1956canada@gmail.com



## THE PHOTOGRAPHIC HISTORICAL SOCIETY OF CANADA

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The PHSC was founded in Toronto in 1974 for those interested in photographic history. It is incorporated as a non-profit organization in Canada. All activities are undertaken by unpaid volunteers. We help camera and image collectors and those interested in the diverse aspects of photographic history, share in their enthusiasm and knowledge. We promote public interest in photographic history through talks, awards, publications, fairs, auctions and on-line. Our members are camera or image collectors, photographic researchers and writers, and photographers in Canada. Included are many libraries, archives, museums and other photographic societies.

A subscription to *Photographic Canadiana* is included in PHSC membership fees of \$35.00/year and \$100/3 years – PayPal payments for U.S. and International Membership is \$45. (CDN). Toronto area fee includes free educational meetings.

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# TORONTO NOTES

JANUARY and FEBRUARY 2020 MEETINGS

Reported by Bob Carter

Chris Luckhardt has travelled the world photographing ruins and posting to social media. Chris began to photograph his travels some eighteen years ago using a digital camcorder. From the recorder, he moved on to a digital camera.



Photograph by Robert Lansdale

CHRIS LUCKHARDT

He now focuses on Instagram, YouTube, and his website that will relaunch this year ([chrisluckhardt.com](http://chrisluckhardt.com)). Before posting, he may crop a bit or correct for tilt, but that is usually all he does. His prints are sold via his website as electronic files.

He explored and photographed as he traveled around the upper Great Lakes. He showed slides of one popular site - an abandoned Rochester subway station. In another image, he snapped abandoned cars and buses in a field near Milton. While he explored and photographed, he learned to make better images. For example, he showed some Buffalo images where he used a tripod to keep the camera steady. By 2007, (five years later) Chris took an image of the bay in San Francisco while going by boat to Alcatraz. As it was displayed, he noted that birds flying close by with the city in the distance makes the shot.

The revenue from his photography leads to trips and conferences which open avenues for photos of foreign abandoned places. For example, he discovered dozens of abandoned Edsel cars in the midwest in a field. His first film image was an abandoned truck in the snow of spring. In another, the image he projected showed a military tank on an active New Jersey training airbase. Chris said he snuck in, took some photos, and got out. In this case, he used Ilford HP-5 film.

Explorers like Chris try to visit all the abandoned spots in the world. He has explored in 18 countries, every US state, and every Canadian province. He hasn't explored Chernobyl yet but is hoping to visit the legendary site later this year.

In October, Chris and three photography partners planned a visit to China and its abandoned theme parks, cities, and parts of the Great Wall. One abandoned theme park they visited was massive, but it was built on unapproved land and so was forced to close. Chris showed one image outside a Chinese abandoned mall with city buildings in the background. While its design was not especially significant, it was an important place to visit because of its sheer size!

Closing his talk, Chris showed images he took in Russia. Chris and a partner visited the abandoned Soviet Space shuttles there. They hiked 75km over rough desert terrain at night carrying heavy supplies for a multi-night stay. There's a 50/50 chance of being caught by Russian military patrols armed with AK-47s.

The Soviets built three shuttles, basically as a carbon copy of the NASA program with added outboard booster rockets. The Buran shuttle, called Blizzard in English, worked and flew although it had no one on board. A second was about 95% built while the third was for training cosmonauts. All were built in Kazakhstan back in the days when it was part of the USSR. The location was also used to build MIR, the space station.

The older Russian shuttles were very expensive to house and maintain. Buran was destroyed in 2002 when the giant hanger housing it suffered a collapsed roof. The other two shuttles were in a second hanger while the boosters were in a third. All three hangers are without power or staff today. Tours are available to see some parts of the spaceport, but the shuttles are off-limits.

The team of four did six months of planning before the trip. Chris did 12 weeks of intense gym training as preparation. Only two of the team ended up going to the shuttle hangar making no noise at all. Ran, a 160 cm tall Chinese explorer, carried gear that weighed about half of her body weight! The pair understood they were trespassing on Russian territory in Kazakhstan half-way around the world with no support. If they were caught, their SD cards and images would be destroyed, and even their cameras erased. All images were taken by natural light filtering through the hanger windows. While they took photos in the huge hanger, they decided not to try entering the shuttle itself since others did so earlier (French explorers even took a video inside the shuttle).

Tonight's talk gave us the vicarious thrill of visiting abandoned buildings plus an insight into the world of the Adventure Photographer. The evening wrapped up with a spirited Q&A session.

Our last speaker before COVID-19 hit was Victor Caratun: “Toronto Past - Our Past through Images”. His presentation was well received with an influx of guests, old and new to the PHSC. Victor himself has been a PHSC member off and on since 2013. He is part of the Facebook site “Toronto Past Archive”

Victor presented a brief history of Toronto via postcards and photographs. He began with a summer 1901 photograph up Yonge Street just before the Boer War parade set off in a whirl of bunting and soldiers. Right after that, he projected a list outlining his presentation and its objective. This short list preceded a very brief perspective of photography in the 1800s - Wedgwood and his camera obscura experiments in 1800 up to the very early 1900s (1913) to set the tone of his presentation. This was followed by a brief history of the postcard and the importance of photographic postcards to our city’s history.

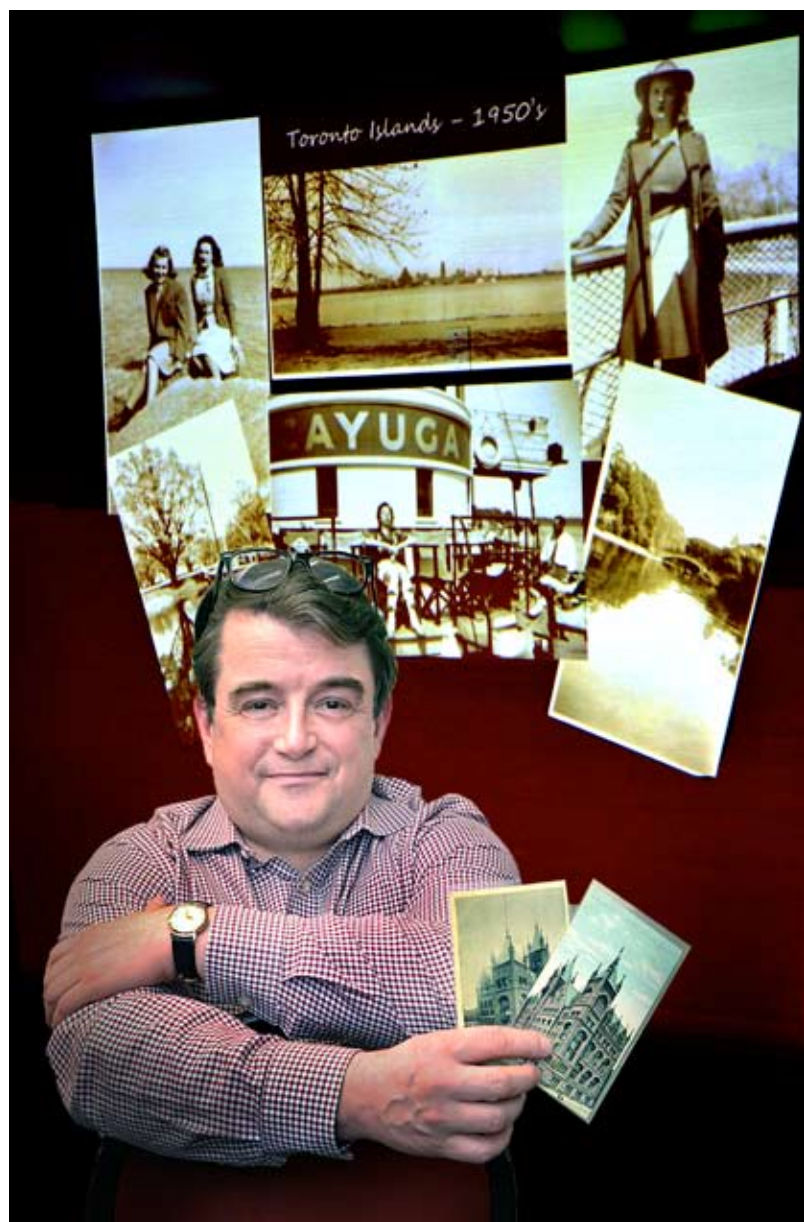
Victor demonstrated this importance by showing Toronto’s changing skyline in postcards from 1915 - 2015. This was followed by separate photos showing the 1931 skyline, the Bloor Viaduct when recently finished, and our waterfront in 1915 before it was seriously altered by the encroachment of landfill.

A night shot of a TTC Dundas street car on Albert Street introduced the “Collecting Toronto” part of his talk. An 1888 photo by Micklethwaite along King Street near St. Lawrence market was compared to a 2018 colour photo from the same spot - only a clock tower was identifiable to me in both photos. A postcard captured daily life in 1905 on the corner of King and Yonge. In another image, Victor compared Bay Street looking north to Queen Street and the city hall around 1901 and in 2018 - well, at least the old city hall was identifiable in both photos!

“Personal Photos” began with a porch shot of 147 Beverley Street in 1911 and again in 2017 showing both changes and things untouched. A second slide showed the same 1911 photo, a close-up of the people on the front porch, and a postcard. It suggests one person on the porch is Prime Minister Mackenzie King who lived there over a decade earlier with his parents while attending University of Toronto.

Slides show postcards of delivery services, daily life, visits by Royalty, and more sombre events like the terrible 1904 fire. Other postcards show the Hanlan Hotel on Centre Island and the tragic fire that consumed it five years later. One very memorable slide shows the 48th Highlanders in the largest war parade ever held in Toronto, marching down University Avenue off to fight in the great war.

As an example of how photography can aid history, Victor showed a photo of Captain Douglas Higgins around WW1. The photo was easily identified as that of Higgins as it was juxtaposed next to a newspaper article from the Toronto Star on March 8, 1918 with Higgins’s portrait at the top. Another photo dated 1925 shows the crowd at the old city hall attending the dedication of the Cenotaph commemorating Torontonians who died fighting in WW1.



VICTOR CARATUN

“Shopping and Stores” in Toronto years ago were represented by photos of Dominion Regalia (c1930), makers of ribbons, bunting, etc.; Stennett Brothers in the Beaches; and the 114 Yonge Street branch of the Eastman Photographic Stores (1930). “Recreation” is shown by a photo of the High Park Mineral Baths pool and postcards of a Hunt Club ceremony, Steamships on Lake Ontario, Toronto Islands in the 1950s, etc. Other photos and cards show things like school children, ladies (summer), and men (winter), in typical attire plus the ROM at Bloor and the AGO in the Grange.

Victor wrapped up his talk with a slide showing ways he can be contacted. Throughout his talk, and especially once it concluded, there was an enthusiastic Q&A session. Although we have seen talks on Toronto’s history before, Victor’s unique perspective using postcards and some photos brought a fresh insight into our wonderful history and how to view it. Be sure to visit Victor on his facebook page “Toronto Past Archive”. 🐾





Figure 19. Agnes B. Warburg, 5109. Venice, 9 Sept 1935, 10:20am, 1/50 @ f4.5, sunshine Dufaycolor slide, 1935, © Victoria and Albert Museum



Figure 20. Agnes B. Warburg, 5105. Swimming pool, SS Strathnaver, 5 Sept 1935, 1/50 @ f3.5, 3p.m., cloudless, Dufaycolor slide, 1935, © Victoria and Albert Museum



Figure 21. Agnes B. Warburg, 5369. At Kyle of Lochalsh, Dufaycolor slide, 1937, © Victoria and Albert Museum



Figure 16. Agnes B. Warburg, A Cherry Orchard in Spring, sanguine-tinted gum print, 1904 © Victoria and Albert Museum



Figure 22. Agnes B. Warburg, 5385. Feeding Herring Gulls, Dufaycolor slide, 1937 © Victoria and Albert Museum



Figure 23. Agnes B. Warburg, Mallaig, painting the boat, Dufaycolor slide, 1937, © Victoria and Albert Museum



Figure 24. Agnes B. Warburg, Mallaig, painting the boat, tri-colour carbro print, ca. 1937, © Victoria and Albert Museum

# ***A HIDDEN HISTORY OF EARLY COLOUR PHOTOGRAPHY IN BRITAIN: THE PHOTOGRAPHS OF AGNES B. WARBURG (1872-1953), Part Two***

***By Hana Kaluznick***

***Master of Arts, Film and Photography Preservation and Collections Management***

***Toronto, Ontario, © Hana Kaluznick, 2019***

***This is a precis version of the complete thesis***

*Agnes Beatrice Warburg (1872-1953) was a British amateur photographer and active member of the Royal Photographic Society (RPS). Between about 1890 and 1949, Warburg experimented with nine different colour photographic techniques, established the RPS Colour Group in 1927, and invented her own process called the War-type in 1918.*

*This thesis examines the untold history of Agnes B. Warburg, and narrates a history of early colour photography between 1907 and 1945. This allows us to see how amateur photographic practices informed and perpetuated the artistic and technical development of colour photography in the early 20th century.*

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## **Continuing from Part One: Colour Processes**

The nine processes she used include: platinum, carbon, tinted gum arabic, the autochrome, Raydex/Ozobrome, the War-type, tri-colour carbro, Kodak Colorsnap, and Dufaycolor. This list can be divided into two categories: assembly processes and screen processes. The assembly processes she used were gum printing, Raydex/Ozobrome, tricolour carbro, Colorsnap and the War-type. All were printed tediously by hand, sometimes taking many days to develop. By comparison with the simpler screen processes such as the autochrome and Dufaycolor these assembly processes were extremely difficult to use. Fundamentally, screen-based processes like the autochrome changed the *modus operandi* of making photographs. Making colour photographs was no longer about control in the darkroom or experimenting with pigments and dyes, as most amateur and professional photographers could successfully develop autochrome slides. However, the autochrome and other mechanical processes that were to come posed a great challenge to pictorialists, who were concerned with evoking colour as opposed to mimicking it.<sup>60</sup> Warburg's collection of assembly and screen processes indicates that she was aware of the perceived artistic limitations of the autochrome and it could be argued that that is what drove her to pursue such a diverse range of assembly processes. The assembly processes produced a print instead of a slide, while offering greater ability for control to evoke rather than mimic the colours that surrounded her. From 1907 until the late 1930s Warburg was working exclusively with these print materials. Her career as a colour photographer was capped by the use of two screen processes, the autochrome and Dufaycolor. Yet the two differ starkly in quantity, quality and content in the Warburg collection. There are hundreds of Dufay slides compared to only a handful of autochromes, suggesting that as photographic trends and technologies progressed, Warburg was transitioning her practice alongside these innovations.

*The Photographic Journal* published by the RPS and the *British Journal of Photography* (BJP), were central sites for discussion and marketing of different colour process. Warburg was a frequent contributor to *The Photographic Journal* publishing lectures, articles, and how-to guides for Dufaycolor and tri-colour carbro printing. Collating the textual materials with references to the photographs has enabled me to fill in some of the layers that made up her interdisciplinary practice. The following chapter will outline each of the processes Warburg used to make photographs over the course of her career; beginning with platinum and carbon printing in the late 1800s and culminating with Dufaycolor in the 1940s. The processes can be sectioned into three larger process groups: additive screen processes, pigment processes, and dye imbibition processes. A brief description of how these processes worked and how they were made will be outlined, followed by a discussion on their relevance within the broader Warburg collection.



## I. Platinum and Carbon (1890-1900)

Warburg followed in the footsteps of her eldest brother, John Cimon Warburg, and began making photographs in the late 1880s. The earliest prints in the V&A collection are platinum prints made in 1898 though I do not suggest this was the first print she ever made. She used black and white materials throughout her entire career and addressing these images allows us to gain a better understanding of her transition to colour. Her knowledge of black and white materials, processes, and techniques including control of contrast, tonal range and darkroom chemistry all stood her in good stead as she moved into colour printing. By the turn of the century, black and white materials were becoming easier to use, but for those developing at home it was by no means as simplistic as the Kodak suggestion, 'You press the button, we do the rest.' Carbon and platinum printing were multi-step processes requiring intense precision and attention to all key

a frenzy of research around the best ways to simulate colour using the additive approach. Myriad processes came forward and some processes, including Dufaycolor, were used well into the 1950s. Originally on glass substrates, these processes increased in usership as lightweight flexible celluloid bases became more widely available in the early 20th century.

Louis Ducos du Hauron established the logic for additive processes in 1868.<sup>61</sup> He was the first to consider that photographing through screens comprised of lines of varying colours could enable the first steps required to create a colour photograph. Taking inspiration from Ducos du Hauron, John Joly commercialized the first screen plate process called the Joly Plate in 1897. Despite its high price and fundamental issues of low sensitivity and poor colour quality, it was the first process to gain any real popularity and remained on the market until 1900.<sup>62</sup> Ducos du Hauron would eventually invent the Omnicolore process in 1907, but it fell short on quality and had no commercial success.

## II. Autochrome

The autochrome is heralded as the first commercial process capable of photographically rendering the world's natural colours. As evidenced by a patent submitted in May of 1904, the autochrome was ready for issue, but an additional three years of developmental work was required to make it a useable commercial product.<sup>63</sup> By comparison to other commercial colour process that came before it, exposure times were shorter, resolution was higher, and the colour cast was more accurate. The autochrome used a combined system, meaning the screen and photographic emulsion were together on one substrate. Separate systems required that the emulsion plate and viewing screen were separate. Bringing the screen and emulsion together reduced "problems of uneven contact and poor registration between screen and

image."<sup>64</sup> The autochrome screen was made up of potato starch granules approximately 12 to 15 microns in diameter, dyed blue-violet, orange-red and green, totalling an average of 4,000,000 granules per square inch.<sup>65</sup> When mixed, the granules created a grey powder that was applied to a glass plate coated with adhesive resins, and gaps between the colour granules were filled with fine black carbon powder.<sup>66</sup> After being passed under a high-pressure roller, the plate was covered in a layer of nitrocellulose, dammar resin, and castor oil. Finally, a silver-halide photosensitive solution was coated over the screen. Developing a plate was done using a conventional reversal technique, a process that produced a positive image directly onto the substrate. Once the picture was developed it would be bleached and re-exposed to white light and developed a second time to produce a positive image. The resulting positive image would then be varnished and protected with a piece of glass.<sup>67</sup>

The soft, painterly quality of the autochrome initially put it in good stead amongst the artistic community. Dominant voices in photography, including Alfred Stieglitz,



Figure 14. Agnes B. Warburg, *A breezy morning near Gothenburg, Sweden*, platinum print, 1898 © Victoria and Albert Museum



Figure 15. Agnes B. Warburg, *Buying Flowers*, platinum print, ca. 1899 © Victoria and Albert Museum

factors: water temperature, solution ratios, development times, chemical balance and paper type. The complexity of these processes built her technical skill, which later served her in using colour processes that required the use of black and white separation negatives such as Raydex/Ozobrome, the War-type and Colorsnap prints. Because she was technically proficient, focused, and financially capable I would suggest that she was motivated by the challenge that colour photography posed.

### Additive Screen Processes

Warburg's transition to colour began with these processes. Her tinted gum and carbon prints suggest an early inclination toward colour, but it was the invention of the autochrome that solidified her interest in this type of photography. Additive colour screen processes worked on the premise that a colour image could be created through the use of a colour screen in combination with a black and white negative emulsion. These processes enabled shorter exposure times and necessitated fewer exposures than competing colour technologies. The most iconic of the additive processes was the autochrome, introduced in 1907 by the Lumière Brothers. This launched

enthusiastically equated its creation with that of the Daguerreotype.<sup>68</sup> But it was expensive, delicate, and nearly impossible to display. For amateurs similar to Warburg, the need to display slides was paramount. The emulsion covering the plate was so dense that only 7.5 percent of available light was able to pass through the image.<sup>69</sup> This made viewing the autochrome, under either natural or artificial light, extremely difficult. And to further complicate matters, if a hot projection light source were placed close to the plate, the emulsion would burn and deteriorate quickly.<sup>70</sup> Lecture, exhibition and demonstration were at the core of the RPS and the challenges members faced in displaying autochromes offers a suggestion as to why Warburg may have discontinued working with the autochrome so early on in her career with colour. The shortcomings of the autochrome resulted in a multitude of new additive screen alternatives, but few would achieve comparable commercial success.



Figure 17. Agnes B. Warburg, [Untitled], autochrome, ca. 1907, © Victoria and Albert Museum



Figure 18. Agnes B. Warburg, [Untitled], autochrome, ca. 1907, © Victoria and Albert Museum

Lumière discontinued the autochrome in 1934, a date that seems surprisingly late given the technical advancements that had been happening elsewhere in the market.

It can be suggested that the collection of autochromes by Warburg represent a very tentative introduction to colour photography. There are approximately twenty plates directly attributable to her. Though there may be more, I hesitate to say so because of the current organization of the collection. Several artists share boxes and the slides are seldom signed. The subjects of the autochromes attributed to her are often out of focus and posed. Portraits are not common elsewhere in the collection, and perhaps this was the result of the difficulty associated with capturing a moving, breathing target with a slow shutter speed required for the low light sensitivity of the autochrome plates. Furthermore, it is uncharacteristic of Warburg not to explain her errors or shortcomings in publications or notes on the margins of her images. Therefore, I suggest that these autochromes are the results of Warburg's early experiments with additive colour plates and the first example where we see Warburg abandon a process in favour of one that she felt facilitated better results. In this instance, she moved from the autochrome to tri-colour carbro printing.

### III. Dufaycolor

Dufaycolor was originally created for motion picture film in 1932, and was introduced to the still photography market in 1935.<sup>71</sup> Additive process technologies had evolved substantially between Warburg's use of the autochrome and Dufaycolor. Dufaycolor was the third iteration of film produced by French lawyer Louis Dufay (1874- 1936). Invented in 1908, Dioptrichrome was the first of the three, using the basic principles of filtered light put forward by Ducos du Hauron.<sup>72</sup> This process was a glass plate separate system. Up until the widespread use of film, additive processes were generally all separate systems, meaning that the viewing screen and substrate were created and functioned separately. A major drawback of the separate system was the parallax effect. This occurred when the positive image was not at a right angle to the line of vision. The result was a skewed interpretation of colours: the viewer would see the subject in its complementary colour as opposed to true ones.<sup>73</sup> Like many other separate systems including Paget and Finlay colour, the effort to eliminate this issue was realized when combined systems were invented. For Dufay, this was Dioptrichrome-B, released in 1910.<sup>74</sup> The Dufay Company was dissolved prior to World War I, but would be picked up again in 1917 under the name Dufay Versicolor.<sup>75</sup> In 1925, the company changed hands again.<sup>76</sup> The family-run English company, Spicers Ltd., of London sponsored the process in 1932, renaming the company Spicer-Dufay. Together with the Spicer Ltd. engineer, Charles Bonamico, they released the first iteration of Dufaycolor as ciné film in 1932.<sup>78</sup> In 1935, Ilford Limited of London purchased the manufacturing rights and started making 35mm and 2 ¼ inch film for still photography. Using a colour screen, called a mosaic or réseau, the principle of Dufaycolor was the same as many combined additive processes. The réseau was uniformly divided into microscopic areas of blue, green and red that sat on top of an emulsion layer. There were approximately 1,000,000 tiny coloured elements per square inch of film. Together they acted as the filter to create the sensation of colour. The Dufaycolor réseau had alternating rows of blue, red and green dye at a 23-degree angle to one another. The first step in manufacturing a réseau filter was to cover a piece of cellulose acetate (film) with a layer of collodion dyed blue. Greasy ink would then be printed on top and the film would be bleached to create blue channels between clear channels. Next, the film was dyed green to create alternating green and blue lines and the greasy lines would be gone. A new set of ink was rolled on perpendicular to the green and blue lines, and then bleach and dyed in red, again, removing the ink and leaving a completed réseau.<sup>79</sup> The screen was then coated with a panchromatic emulsion and was ready for exposure. Dufaycolor was sold as cut film, or rolls of 12 exposures.<sup>80</sup>

Warburg was an avid user of the Dufaycolor process. She praised the simplicity of developing an image stating that after decades of having used tri-colour processes, "developing Dufay slides is as easy as falling off a log."<sup>81</sup> This part of the collection is comprised of 400 slides, and makes up the majority of the RPS Warburg collection. It was the only process she used in the later part of her life. The



last photographs made by Warburg are Dufaycolor slides in 1949: she was 77 years old.

The Colour Group meeting notes indicate that she was determined to find the best way to display slides for the public: in exhibitions, lectures and at home to friends. She felt that the slide was indicative of colour photography's mechanized future. The earliest images in the collection of Dufay slides are from 1935, but notes from a Colour Group meeting hosted on January 7, 1928, show that there was plans for Spicer-Dufay company representative, John Thorne-Baker, to give a demonstration of the Spicer-Dufay process on November 3 of that year.<sup>82</sup> Her earliest works using Dufaycolor demonstrate a distinct motivation to control the technical quality of the image. Under- and over-exposed images, as well as 'perfect' images contain details of exact technical information including time and date photographed, f-stop and exposure time (Figure 19 and 20 see page 6). This can be interpreted as another means in which to understand Warburg's engagement with colour processes. During this time colour processes shared an intrinsic link to science, and by tracing the technical evolution of film material we see evidence of Warburg as someone deeply involved in the progress of colour photography's technical components. Her practice of documenting technicalities is not seen throughout the entire collection, suggesting that the improvements in technical information around exposure times, colour resolution etc., reduced the need for such meticulous monitoring.

In 1937, Warburg gave a lecture to RPS members on a selection of slides she had made during a trip to Scotland. Evidenced by a series of notes in the collection, these slides were of various sizes and developed at home using various 'brews'.<sup>83</sup> The associated RPS journal review of this lecture indicates that she exposed approximately nine rolls of Dufaycolor film on this trip, and of those 108 photographs captured, the collection holds 77. The institutional model of photographic history suggests that to consider a slide an art object would be unacceptable, but not according to Warburg and her peers. Frank Newens, the Chair of the Colour Group and attendee of lecture said,

**"it is difficult to find words to express all they felt about the slides Miss Warburg had shown. They were among the best they had seen and reflected credit on both, Miss Warburg for her beautiful sense of composition and wonderful processing, and on the Dufaycolor process for the way it had reflected the colours."**<sup>84</sup>

The meticulous naming, dating and framing of slides were the result of extensive deliberation by the Colour Group. It was decided that in order to display slides in exhibition, the author's name, and an image title had to be written on the margin. Only certain sizes of slides would be considered for display, those being: 3 ¼ x 3 ¼, 4 ¼ x 3 ½, 6 ½ x 4 ¾, 8 ½ x 6 ½ inches. All of Warburg's slides are 3 ¼ x 3 ¼. Rules of size only applied to the slide itself—cropping and content decisions rested with the author. Image cropping, likely done using an external camera frame, is frequently seen in this collection.<sup>85</sup>

#### IV. Additive Colour Screen Printing

Printing from additive colour screen transparencies was a common commercial practice.<sup>86</sup> By producing colour

separation negatives, publications could convert slides into prints using pigment, imbibition and dye-mordanting processes. As a result of Warburg's existing expertise in monochrome pigment printing it is safe to assume that she welcomed the opportunity to use these similar print-making processes and techniques in colour. There are several images in the collection that were produced first as Dufaycolor slides and then again as pigment prints. To make a print, separation negatives were created using from the slides using 'block-out' screens. Most companies making additive screen slides, including Dufaycolor, manufactured these screens and they were sold as part of the kit. Block-out screens were "arranged in the same pattern as the original taking screen but blocking out all but one of the colour pattern."<sup>87</sup>

#### Dye Imbibition Processes

The word imbibition is defined as the absorption of one substance by another; in relation to a photograph, dye is absorbed by gelatin. The earliest notions of dye imbibition processes are attributed to Charles Cros (1842-1888) and Ernest Edwards (1837-1903). "Building on ideas put forward by Edwards in 1875, Charles Cros patented a tri-colour imbibition process called hydrotypie in 1880."<sup>88</sup> Imbibition processes are assembly processes, meaning that "the image is built up by the successive transfer of coloured layers onto a final support."<sup>89</sup> One of the earliest examples of a dye imbibition process was the Sanger-Shepherd process, invented in 1900 by RPS fellow Edward Sanger-Shepherd. Creating a Sanger-Shepherd slide involved exposing three sensitised pieces of celluloid, called matrices, through different coloured filters to create gelatin reliefs. Each relief was then stained in carefully calculated solutions of yellow, cyan and magenta dyes. The coloured reliefs would then be rolled individually onto a separate substrate in perfect registration to create an image.<sup>90</sup> But because the dyes tended to wander, developers seldom printed the images on paper. Instead, they chose to create transparencies by overlaying the matrices and placing them between two pieces of glass. Historically the creation of other imbibition processes would follow on this one, most famously, the Kodak Dye Transfer process in 1946.

#### V. Colorsnap

Colour Snap Shots London Limited introduced the Colorsnap process in 1929.<sup>91</sup> Colorsnap was a tri-pack system: a singular unit of film containing "three emulsion layers of different sensitivity, each on its own base, used to obtain three separation negatives with a single exposure."<sup>92</sup> As with many other tri-pack systems, Colorsnap was flawed. The tri-pack system required that light pass through all three layers of support and emulsion, which often led to one of more of the negatives being blurred or low in resolution.<sup>93</sup> This issue was so prevalent that Color Snap paid workers to hand-colour monochrome prints from the best of the three negatives from the tri-pack.<sup>94</sup> As a result, this printing process was off the market before the end of 1929, the same year it was introduced. The system was licensed by Agfa-Ansco in America, a company that specialized in film production and printing, but the issues persisted and it discontinued in 1934.<sup>95</sup>

This blurry, high contrast and oversaturated picture is the only Colorsnap print in the Warburg collection (Figure 25 see page 12). My suggestion is that it was the product of a tutorial offered by the Colour Group; however, I cannot establish evidence to confirm this. Meeting notes from April 1932, state that Color Snap Limited was to host a tutorial, though the photograph in the collection is dated 1929.<sup>96</sup> Perhaps there was more than one tutorial hosted; perhaps her exploration of this process was self-guided. This furthers the idea that Warburg's use of such a range of processes was motivated by the technical limitations they presented. Furthermore, it reminds us of her leadership role within the Colour Group that would have kept her aware of changes and developments within the photographic industry.

## Pigment Processes

The desire to create images on paper was realized with forms of pigment processes. In comparison to glass-based substrates, a picture on paper was easier to display and circulate, which made paper the ideal substrate. Coloured carbon prints, gum prints and carbro prints are the three types of pigment prints, all of which are present in the Warburg collection. To this day, these pictures are the most stable of all the colour processes; however, at the time of their invention they were difficult and costly to make. Louis Ducos du Hauron was the first to describe ideas around subtractive printing processes on paper, called heliochromy.<sup>97</sup> His logic was the basis of all processes to come; he stated, "If it is true that three colors produce, by the mixture that results from their superposition, all the colors, it follows, per contra, that any picture...may in the mind decompose itself into three pictures, the one red, the other blue, the third yellow, the superposition and incorporation of which reconstitute the same picture."<sup>98</sup>

Creating a set of separation negatives required exposing three black and white panchromatic silver emulsions individually through primary coloured filters. "Each filter selectively absorbs all but its own colour, and the light-sensitive emulsion gets exposed only in the areas that are of the same colour as the filter."<sup>99</sup> However, it would be another 40 years before subtractive pigment processes would gain any momentum. Carbon printing, originally a monochrome process invented by Alphonse Poitevin in 1855, was among the earliest commercially successful pigment processes.<sup>100</sup> But because panchromatic plate emulsions were not manufactured at the time of his invention, the process would not gain attention in relation to colour printing until much later. Because these processes use pigments as opposed to dyes, these photographs look almost exactly as they would have when they were made. Warburg began making pigment prints in the earliest part of her career using gum and carbon techniques. However, beginning in 1908 she began to experiment exclusively with tri-colour carbro printing of various types including the Oxobrome/Raydex process and the War-type, which she invented in 1918.

## VI. Gum Printing

Though the gum prints in this collection fall outside the general purview of this discussion, they are central to the emergence of her practice of using colour artistically. The

gum printing process was a cornerstone of the pictorialist movement, in part because the final prints often resembled traditional non-photographic fine art prints such as lithographs. Among others, Edward Steichen, Alfred Steiglitz, and Alvin Langdon Coburn were avid users of this process because it allowed for complete control over image contrast, density and tone. The ability to control the final output and select the colour of the pigment suggested a more artistic and evocative final result. Both gum and carbon printing techniques involved re-exposing the original print under one or more layers of pigment suspended in a light-sensitive solution of gum arabic and potassium dichromate.<sup>101</sup> Early colour historian Pam Roberts identifies that nonprofessional pictorial artist/photographers, "such as those who experimented briefly with the autochrome," were primarily among those who took up these complex colour processes on paper.<sup>102</sup> Roberts notes that in an explosion of self-organized exhibitions, photographers experimented with a multitude of colour mediums, and often referred back to 19th century processes including gum printing, hand-colouring, and cyanotypes.<sup>103</sup> This characterization describes Warburg exactly.

It is interesting to consider these images within the larger context of Warburg's oeuvre and practice. Her early engagement with colour both for personal and exhibition purposes further suggests a dedication to the medium and to the pictorialist movement. Ostensibly, her knowledge about the permanence of the pigment print processes would have informed her later work with tri-colour processes. Given that there was no silver in the top gum layer, these images were significantly more stable than competing technologies, like the autochrome. We can interpret her use of these processes as further evidence for how Warburg influenced the direction of colour photography. She chose to work with processes that favored the longevity of colour, a favourable characteristic in the amateur circles that were so focused on display.

## VII. Tri-colour Carbro

The tri-colour, or three colour, carbro process was the general term used to describe processes that combined carbon-based pigments and silver bromide printing techniques. Warburg used several tri-colour processes, many of which are identified solely as 'tri-colour carbro'. As a result, I will discuss tri-colour carbro generally, and those processes more specifically identified, Raydex/Ozobrome and the War-type, will be discussed in closer detail in the following section. The term 'carbro' was coined by H.F. Farmer (1860-1926) in 1919 and would become the prevailing printing process of the 1930s due to demand for photographs by magazines and advertising.<sup>104</sup> The Autotype Company of Ealing manufactured and promoted the tri-colour carbro process until after World War II. In their manual they state, "Anyone who has facilities for making contact, or enlarged bromide prints, and can command a supply of water has all the main essentials for making Carbro prints of any size."<sup>105</sup> In this process three black and white separation negatives taken through coloured filters are contact printed onto silver bromide paper containing no gelatin layer. Each wet bromide print is then contacted printed onto its complementary coloured gelatin coated pigment paper: red negative with cyan paper; green negative with magenta paper; and blue negative with yellow paper. A chemical reaction between the bromide print





Figure 25. Agnes B. Warburg, *Colorsnap* [recto and verso], Colorsnap print, 1929 © Victoria and Albert Museum

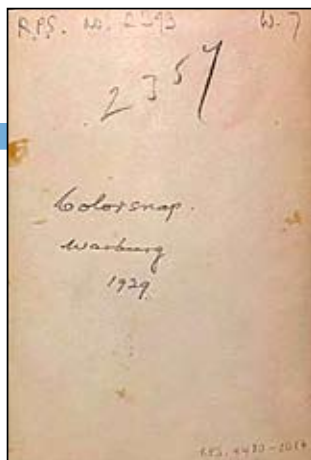


Figure 27. Agnes B. Warburg, *Untitled*, indigo-tinted carbon print, ca. 1904 © Victoria and Albert Museum



Figure 26. Agnes B. Warburg, *Peonies*, Raydex/Ozobrome process 1912 © Victoria and Albert Museum

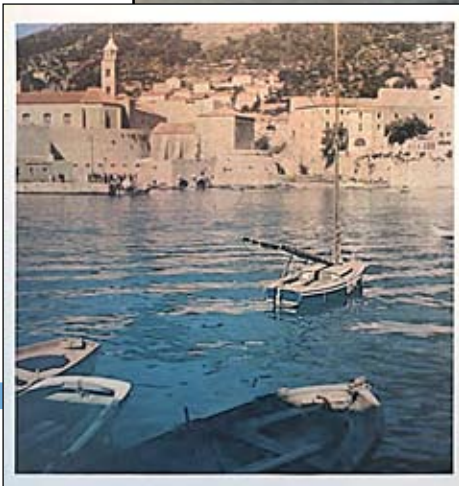


Figure 29. Agnes B. Warburg, *Boats in Dubrovnik*, tri-colour carbro print from Dufaycolor slide, 1936 © Victoria and Albert Museum



Figure 28. Agnes B. Warburg, *Joan E.V. Warburg*, sanguine-tinted gum print, ca. 1904 © Victoria and Albert Museum





Figure 30. Tri-colour carbonyl storyboard assembled by Agnes Warburg and used during instructional workshop on the process, 1932 © Victoria and Albert Museum



Figure 31. Agnes B. Warburg, *Bougainvillea*, tri-colour carbonyl process, ca. 1935 © Victoria and Albert Museum



Figure 32. Agnes B. Warburg, *My first colour print*, Raydex (Ozobrome) process, 1908, © Victoria and Albert Museum

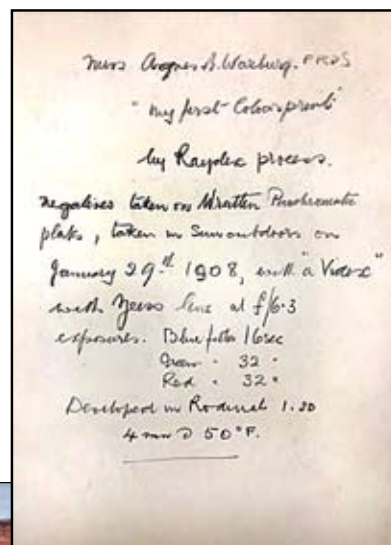


Figure 33. Agnes B. Warburg, *Morning in Africa*, Raydex print, ca. 1925 © Victoria and Albert Museum





and sensitized pigment paper ensues - the bromides are bleached and the gelatin in the pigment paper hardens. The whole image has then been transferred onto the pigment papers and the bromide prints can be discarded. The pigment papers are then submerged in warm water to make the gelatin swell in order to create a larger gelatin relief. The resulting reliefs are then rolled onto celluloid supports and left sandwiched together while the gelatin transfers from the paper to the celluloid. The sandwiches are placed in warm water and peeled apart, leaving the image on the celluloid, and the pigment paper is discarded. Once the three celluloid reliefs have dried, they are soaked in water and rolled in sequence - cyan, magenta, yellow - onto a wet temporary paper support. This part of the process is very lengthy, every piece of celluloid must be left in contact with the paper until it dries and separates itself from the paper. After the celluloid comes off, the paper must be rinsed to remove the waxy residue left behind, otherwise the next layer of pigment will not adhere. This process is repeated for each coloured relief. In the final step, the three-colour image is transferred onto a final paper. With both papers wet, the two are sandwiched and pressed together before being put in warm water where the soluble support is peeled from the final paper.<sup>106</sup> As should be obvious, despite the Autotype Company advertising this process as simple, it was not. It could take days to make a single print.

Nevertheless, Warburg became a tri-colour carbro specialist. She was revered in the RPS community for her proficiency at producing prints across a multitude of tri-colour processes, hosting lectures and workshops in her home, and around London. In a 1931 RPS lecture titled, "Faults and Failures in Colour Photography: Personal Experiences in Carbro" she charismatically discusses the challenges of the process saying, "I feel little bashfulness in speaking to you to-night, because this evening's subject is a much easier one to talk about than its converse, "Success in Colour Photography", and my own experience of faults and failure is so extensive that I think I am fully competent to deal with it." She goes on to explain that she cannot often explain why things go wrong - that there is an element of magic involved saying that only, "some sort of bewitchment can account for the varied and unexpected results which follow apparently identical courses of procedure."<sup>107</sup>

To go into detail on all of Warburg's reviews, lectures, and exhibitions is a subject unto itself. This selection of reviews and quotes is intended to provide an overview of how her work was perceived and how she impacted the larger amateur community and consumers of photography. These analyses offer us a clear way to understand her significance within the RPS and foreground the diversity of her practice with colour photography. Considering this breadth of textual material outside the context of the RPS gives both Warburg and her photographs new meaning as a significant figure in the history of photography that extends beyond the amateur organizations.

## VIII. Raydex / Ozobrome

Thomas Manly, a fellow of the RPS, introduced the Ozobrome process in 1905. Originally released as a monochrome process with twelve different colour options, it was based on carbon printing techniques dating from the late 19th century.<sup>108</sup> The Ozobrome process was based on carbon printing methods, except it used a bromide print instead of a negative to create the final picture - "the printing is done not by the presence of light - but by chemical reaction."<sup>109</sup> Sometimes referred to as the "evening carbon process," the fact that Ozobrome prints could be made without the presence of light was a major selling point of this process. Photographs conservator Sylvie Penichon describes the process: "the pigment paper called 'Ozobrome pigment plaster', was not exposed to light through a negative but was squeegeed firmly to the surface of a wet gelatin silver bromide print immediately after it had been soaked in a sensitizing and bleaching bath, called 'Ozobrome pigmenting solution.'"<sup>110</sup> Once the papers were placed together the ensuing chemical reaction took approximately 15 minutes to complete. Similar to the carbro process described in the previous section, this reaction "bleached the bromide and cemented the pigmented gelatin in place relative to the proportion of silver that was present on the image."<sup>111</sup> The bromide print was then removed and the pigment paper squeegeed onto a new paper substrate. The resultant image was turned face down and rested on the top of a warm water to wash away the unhardened gelatin.<sup>112</sup>

In 1913, Samuel Manners purchased the rights to the process and began marketing it as three-colour process called Raydex. It was sold as a complete kit, containing all necessary materials and was considered to be the first colour process that would enable the average amateur photographer to create a colour image.<sup>113</sup> Manners stated, "Once the bromide prints are made the process becomes automatic, as everything is so systematized that only ordinary care and a little practice are required to produce satisfactory results."<sup>114</sup> Raydex materials were available until the late 1920s when the process was replaced by other tri-colour carbro processes.

Warburg's first tri-colour print was made using the Raydex/Ozobrome process (Figure 32 see page 13). In annotations on the verso of the prints she specifies the details of the process saying, "My first colour print, by Raydex process; Negatives taken on Wratten Panchromatic plates; taken in sun outdoors on January 29th 1908; with a "Videx" with a Zeiss lens at f/6.3. Exposures: blue filter, 16 sec; green, 32 sec; red, 32 sec; developed in Rodinal 1.20 4 min at 50°F." Because the Raydex process was Ozobrome until 1913, I suggest that this, along with several other prints in the collection, was notated retroactively. It is interesting to note that this is one of few times that she references the camera she was using. The Videx reflex plate camera was the best-known camera manufactured by Adams & Company, London.<sup>115</sup> It had a built-in tray for colour filters and was designed for plates sized 12 x 16.5cm, the approximate size of the "My first colour print."<sup>116</sup>

With the Raydex process Warburg predominantly captured still life and landscape subjects. She displayed these prints in exhibition well into the 1920s, including a selection of prints at the "Graphic and Photographic Art" exhibition in August

1925. Despite the Raydex process sharing so many ties to graphic art production, the reviewer noted that of the works displayed none of them exhibited any “graphic efforts.”<sup>117</sup> Later that year, Warburg’s photographs were displayed and reviewed in the 70th annual RPS exhibition. The exhibition critic was fellow photographer Fred Hollyer, and he noted that control of colour prints is “sometimes so obvious, that the prints would be better suited in a watercolour exhibition than a photographic one.”<sup>118</sup> The balance of maintaining a pictorial aesthetic without compromising the photographic qualities was clearly difficult to maintain. Hollyer goes on to reinforce pictorial themes, saying that the Raydex process was the best process for accurately reproducing the negative, but that black and white bromoil prints were preferred for depicting more personal expression.<sup>119</sup> These are only a few examples of many RPS exhibitions in which her photographs were displayed. Of a print displayed at the largest and arguably most important exhibition of the year, the RPS Annual Exhibition, critic and colleague Frank Newens recalls,

“In no. 558 *Morning in Africa* Miss A.B. Warburg shows her accustomed flair for composition and massing of colour...I always commend her abilities in seeing the pictorial possibilities of the landscape around her.”<sup>120</sup> (Figure 33 see page 13)

Over the course of nearly three decades that Warburg spent working with colour prints her work was seen and interpreted in different ways, some commending her pictorial work in colour and others not. What is clear however, is her commitment to tri-colour printing despite the difficulties that accompanied both the prints production and public reception. Evidently, she was not concerned with how her photographs fit into the institutional and museum models of fine art and was content with existing within the amateur sphere and making art for art’s sake.

## IX. War-type

Warburg invented her own process, the War-type in 1918. The process was published in the October issue of the *British Journal of Photography’s Colour Supplement*, but like many colour processes that came to fruition during this time, it did not gain traction commercially. However, her invention of this process represents the crux of this research – it allows us to situate Warburg alongside other influential manufacturers and scientists who were working towards the same goal of making colour accessible to all. As stated in the article, her motivation to develop this process stemmed from dissatisfaction with other tri-colour processes. Though the War-type was never manufactured or used commercially, it is emblematic of her significance within history insofar as it represents her efforts to shape the development of colour photography, and again, it establishes the importance of the study of amateurism when considering the history of colour photography during this time period.

The War-type was a ‘bromoiltransfero-collotype’. Like most other three colour processes it involved the use of separation negatives, but also involved the commercial, photomechanical collotype process that was invented by Alphonse Poitevin in 1856. The collotype was used

to mass-produce black and white prints and in theory, integrating this process would make the War-type a cheaper and more workable printing process.<sup>121</sup> The multi-step War-type process required transferring three sets of colour reliefs onto a final paper substrate. Where a normal tri-colour print would use a silver bromide print to transfer onto pigment papers, War-type used bromoil prints – an alternative that had been tested by her RPS colleague Fred Judge. Warburg notes that Judge brushed the bromoil solution onto the papers and Warburg did not like this technique for two reasons. Warburg states, “I have never acquired a satisfactory neatness in inking up prints, and

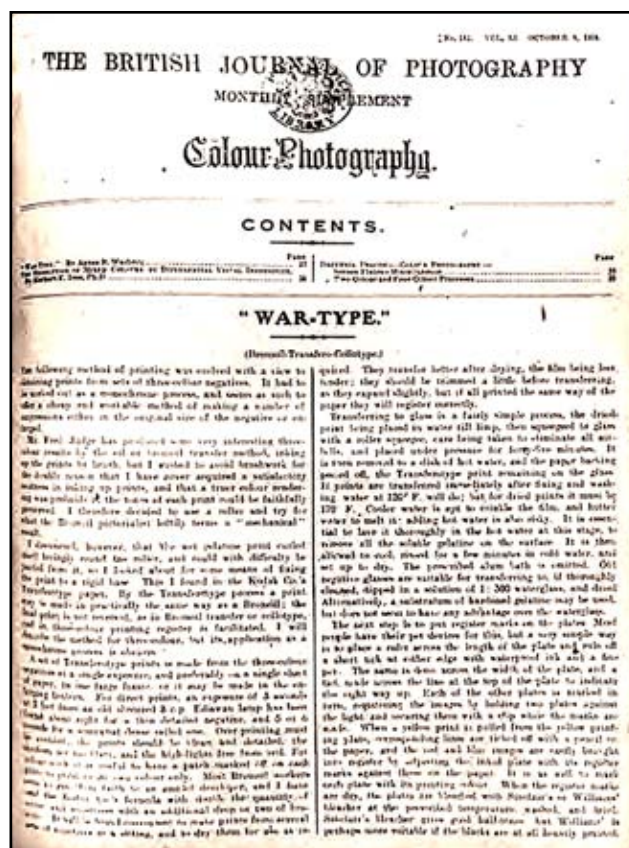


Figure 34. “War-type,” *British Journal of Photography: Colour Supplement* 11, (No. 134 October 4, 1918): 37.

that a truer colour rendering was probable if the tones of each print could be faithfully preserved. I therefore decided to use a roller and try for what the Bromoil pictorialist loftily terms a “mechanical” result.”<sup>122</sup> However, in doing this Warburg found that the “wet gelatin paper curled itself lovingly round the roller and could with difficulty be parted from it.”<sup>123</sup> In order to limit the problem she used Kodak’s Transferotype papers, which came fixed onto a rigid base. The process is described in great detail: exposure times for negatives; her experiences with various developers and why she uses what she does; and the step-by-step process for creating a War-type image including her personal tips. Unfortunately, War-type images are not directly identified in the collection, nor were they featured in any exhibitions under their process name, instead likely listing themselves as ‘tri-colour print[s].’



## Conclusion

To understand Agnes Warburg's photographs and practice is to understand the many facets that made up her career. Through her extensive work with nine processes (and possibly more), participation in salon exhibitions in the UK, and her deep involvement in the Royal Photographic Society's Colour Group, this paper has identified her as an important early 'colour photographer' dedicated to seeing photographically in colour. This paper has served as an entry point into her life and work, as well as having also opened up some broader ideas around the significance of amateurism in Britain and the RPS community. This paper demonstrates the role that amateur photographers played in furthering the development of colour photography among its users, and as such, enables us to understand how photographers like Warburg shaped the artistic and scientific landscape of colour photography. Warburg was an unusual and eccentric woman with few interests outside of photography. She and her associates carried a distinct set of values centered on personal and photographic sociability enmeshed with artistic, cultural and scientific significance. In choosing her path as an amateur, Warburg was able to carry out her personal aspirations for the medium irrespective of reward or acknowledgement. The Colour Group and the RPS gave her a platform in which to disseminate her vast photographic knowledge and values, without a doubt leaving a lasting impact on those who she taught, inspired and supported in making colour photographs.

Warburg was a transitional figure whose career is emblematic of colour photography's technical and artistic evolution between 1907 and 1945. She began by making quintessentially pictorial photographs using black and white materials and quickly progressed to become one of only a few photographers dedicated to seeing that colour photographs enter the pantheon of fine arts in the early 1900s. Her approach to photographing and printing in colour enriched the pictorialist iconography of still life and landscapes through a varied approach to process, and a continuously evolving approach to her subjects. Her work subtly evokes a different type of pictorialism by demonstrating an awareness of human presence that is not otherwise seen in the works of her contemporaries working with colour artistically. Later in her career, as a result of new and better forms of photographic technology and an awareness of photographic trends, she bridged the romantic, art-minded structures of pictorialism with notions of 'straight' and documentary photography. However, my claim about her influence may have looked quite different had she not been so wealthy: more likely than not, she would have had to work commercially, limiting her artistic exploration with colour and perhaps changing the scope of her impact. Further research into her personal inspirations and network is required in order for us to gain a clearer idea of what was informing her choices, work methods and personal motivations.

This research has illuminated the breadth of opportunity for discovery within the RPS collections of early colour work. This research has attempted to shed light onto photography's dark ages – the period between the autochrome in 1907 and Kodachrome in 1935. This was a time fraught with chaos

and challenges within the fields of colour photography but also great excitement, diversity and collaboration. Through investigation of Warburg's practice using platinum, carbon, gum arabic, the War-type, Raydex/Ozobrome, autochrome, Dufaycolor, additive screen printing, Colorsnap, and miscellaneous other tri-colour processes, we gain an understanding of a portion of the diversity of activity and the climate of experimentation taking place within this time period. Furthermore, we come to understand the technicalities of these processes as well as the social environment in which she was working, which bolstered her ability to pursue such a wide range of activities. By virtue of her role as a founder of the Colour Group, Warburg was privy to every aspect of colour photography's evolution during that thirty-year period. She had no interest in having her work acquired or displayed by a museum, because to her 'colour photography' was more than simply capturing or creating a pictorial scene and broader than its commercial associations that limited it to print and advertising. The Colour Group and the RPS allowed her to pursue colour photography on her own terms, and subliminally, she characterized the term 'colour photographer' within the field of photography.

Her work and life appear to have been tightly interwoven with the RPS. And as a result, more research into the interconnections of the RPS Colour Group and the public and professional networks surrounding colour photography could further elaborate Warburg's biography and our understanding of her work. Investigation into the collections of works made by Colour Group members in the RPS collection at the V&A, including Frank Newens, F.G. Tutton, and Violet Blaiklock, to name only a few, would also likely further support Warburg's biography and our understanding of her work. This paper serves as a good first step towards getting to know a collection that is only in its earliest days of research. The unprecedented access offered by the V&A has breathed new life into RPS collection and gradually, as researchers continue to reveal the seemingly limitless opportunities within the early colour collections at the V&A, we will gain a better understanding of what I have started here.

When refiguring the predominant photographic history of colour, it is essential to account for the huge range of activities undertaken by expansive groups like the RPS that perpetuated much of the success in photography's technical and artistic evolution. Warburg's selective oeuvre offers those of us studying her work her very best examples. There are no duplicates – her faults and failures are not captured in the collection despite mistake and experimentation being inseparable from the time period. Like many photographers both before and after her, Warburg destroyed a selection of her photographs before death in order to self-identify and memorialize her career. It is my hope that by considering Agnes Warburg and her photographs outside the confines of the RPS network, I have been able to bring both her dynamic character and her photographs to light and to establish her significance within the larger history of photography. ■

## ENDNOTES

- 61 Penichon, *Twentieth Century Colour Photographs*, 22.
- 62 Ibid., 22.
- 63 Lavédrine and Gandolfo, *The Lumière Autochrome*, 70.
- 64 Penichon, *Twentieth Century Colour Photographs*, 26.
- 65 E.J. Wall, "Introduction," in *Color Photography: A list of references in the New York Public Library* (New York: New York Public Library, 1924), 4, accessed July 26, 2019, <https://archive.org/details/colorphotography00newy/>.
- 66 Lavédrine and Gandolfo, *The Lumière Autochrome*, 165.
- 67 Ibid., 165.
- 68 Alfred Stieglitz, "The New Color Photography - A Bit of History," *Camera Work* 20 (October 1907), accessed July 20, 2019, <http://www.photocriticism.com/members/archivetexts/photocriticism/stieglitz/stieglitzcolor.html>
- 69 Caroline Fuchs, "Anticipation and Reality: A reevaluation of Autochrome Projection," *PhotoResearcher*, no.19 (2013): 33.
- 70 Fuchs, "Anticipation and Reality: A reevaluation of Autochrome Projection," 33.
- 71 Barbra Flükiger, "Dufaycolor," *Timeline of Historical Colours*, 2012, accessed February 15, 2019, [https://zauberklang.ch/filmcolors/timeline-entry/1257/?\\_sf\\_s=dufay](https://zauberklang.ch/filmcolors/timeline-entry/1257/?_sf_s=dufay)
- 72 Lavedrine and Gandolfo, *The Lumière Autochrome*, 94.
- 73 Penichon, *Twentieth Century Colour Photographs*, 314.
- 74 Ibid., 314.
- 75 Fiona Vaughn, "Dufaycolor: materials, techniques and deterioration," *The Australian Institute for the Conservation of Cultural Materials (AICCM) Bulletin* 31, (2008): 56.
- 76 Coe, *Colour Photography*, 72.
- 77 W.H. Carson, "The English Dufaycolor Film Process," (London, UK: Dufaycolor Ltd., July 1934), 19.
- 78 Carson, "The English Dufaycolor Film Process," 19.
- 79 Penichon, *Twentieth Century Photographs*, 47.
- 80 Carson, "The English Dufaycolor Film Process," 19.
- 81 Agnes Warburg, "Highland Holiday," *The Photographic Journal* 161, no. 7 (July 1937): 438.
- 82 Minutes, Colour Group, "Committee Meeting," October 14, 1931.
- 83 Agnes Warburg, hand-written notes titled "Highland Holiday Explained," 1927, Royal Photographic Society Collection, XRG 194.
- 84 Warburg, "Highland Holiday," 438.
- 85 Minutes, Colour Group, "Committee Meeting," October 2, 1929.
- 86 Penichon, *Twentieth Century Colour Photographs*, 53.
- 87 Ibid., 54.
- 88 Ibid., 128.
- 89 Ibid., 126.
- 90 Ibid., 128.
- 91 Ibid., 136.
- 92 Ibid., 314.
- 93 Coote, *The Illustrated History of Colour Photography*, 108.
- 94 Penichon, *Twentieth Century Colour Photographs*, 136.
- 95 Ibid., 136.
- 96 Minutes, Colour Group, "Committee Meeting," April 1932
- 97 Coote, *The Illustrated History of Colour Photography*, 17.
- 98 Ibid., 19.
- 99 Penichon, *Twentieth Century Colour Photographs*, 12.
- 100 Ibid., 82.
- 101 Ibid., 60.
- 102 Roberts, *A Century of Colour Photography*, 58.
- 103 Ibid., 59.
- 104 Penichon, *Twentieth Century Colour Photograph*, 99.
- 105 The Autotype Company Ltd., "The Carbro Process," (London: Autotype Company, 1926): 1, accessed July 20, 2019, [https://archive.org/stream/carbroprocess00auto/carbroprocess00auto\\_djvu.txt](https://archive.org/stream/carbroprocess00auto/carbroprocess00auto_djvu.txt).
- 106 Penichon, *Twentieth Century Colour Photographs*, 114-116.
- 107 Agnes Warburg, "Faults and Failures in Colour Photography: Personal Experiences in Carbro," *The Photographic Journal* 71 no. 3 (March 1931): 113.
- 108 Penichon, *Twentieth Century Colour Photographs*, 99.
- 109 Thomas Manly, "Oxobrome," in *The Sinclair Handbook of Photography: A Practical Guide to the Processes of Modern Photography by Leading Experts*, (London, UK: James A. Sinclair & Co., Ltd., 1913), 121.
- 110 Penichon, *Twentieth Century Colour Photographs*, 99.
- 111 Ibid., 99.
- 112 Manly, "Oxobrome," 123.
- 113 Coe, *Colour Photography*, 104.
- 114 Coote, *The Illustrated History of Colour Photography*, 76.
- 115 "Videx Reflex Plate Camera," *Historic Camera*, last modified June 9, 2015, accessed July 10, 2019, [http://www.historiccamera.com/cgi-bin/librarium2/pm.cgi?action=app\\_display&app=datasheet&app\\_id=1198](http://www.historiccamera.com/cgi-bin/librarium2/pm.cgi?action=app_display&app=datasheet&app_id=1198)
- 116 "Videx Reflex Plate Camera," Science Museum Group, accessed July 3, 2019, <https://collection.sciencemuseum.org.uk/objects/co8085133/videx-reflex-plate-camera-plate-camera>
- 117 J.C. Dollman, "Graphic and Photographic Art," *The Photographic Journal* 65, no. 8 (August 1925): 421.
- 118 Fredrik Hollyer, "The Charm of Colour: A Review of the Pictorial Prints and Transparency Section," *The Photographic Journal* 65, no. 10 (October 1925): 67.
- 119 Ibid., 67.
- 120 Frank Newens, "Colour Prints and Transparencies: Raydex," *The Photographic Journal* 74, no. 11 (November 1934): 494.
- 121 Agnes B. Warburg, "War-type," *British Journal of Photography: Colour Supplement* 11, no. 134 (October 4, 1918) 37.
- 122 Warburg, "War-type," *British Journal of Photography*, 37.
- 123 Ibid., 37.



# A TREASURE FROM MY COLLECTION...

## JOHN KANTYMIR'S VELOCIGRAPHE CAMERA



JOHN KANTYMIR

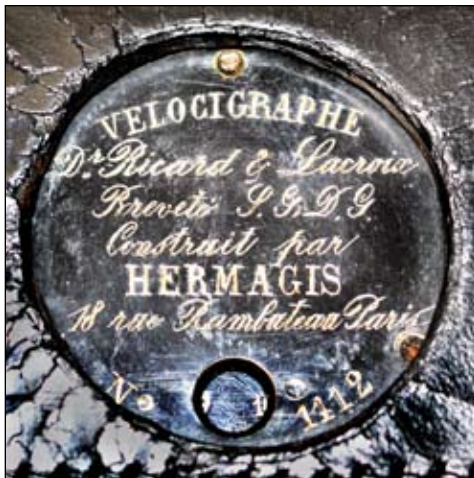
A very long time ago when I was a teenager, I had several camera collecting books that I thoroughly enjoyed. Auer, Abring, McKeown and Gilbert were my favourites, and this Velocigraphe was one of the cameras in the books that I always desired. Over the years my dad and I always kept an open eye for one of these but never even managed to get a chance to buy one.

A very long time ago we purchased a Photo Canon tintype camera from a gentleman living in New York City and I always tried to keep in contact with him. One day I received a message that he had a Velocigraphe in excellent condition with the original case that he was willing to part with. A flurry of messages back-and-forth resulted in a deal we could both live with, and the camera was on its way to me. After what seemed like years (actually less than two weeks) it was finally in my hands and I was so happy to have finally landed such a beautiful specimen.

The Velocigraphe is a beautifully-built, polished-wood “falling plate” camera designed by Étienne Ricard and Jean-Baptiste-Joseph Lacroix. It was made in Paris by Hermagis in the early 1890s. What makes it most interesting is the hard leather case which turns it into a detective camera. All the controls are accessible on the front of the camera which, when not in use, is hidden by the leather cover. It was considered a detective camera since one only had to drop the front cover, adjust the helical lens, and trip the shutter (which also triggered the plate changing mechanism). In order to remove the case, the leather handle must be removed revealing the polished mahogany camera body. Unfortunately on my example the case is very tight to the camera and I have been unable to remove it without damaging the leather case.

The 140 mm Aplanastigmat No.8 lens is mounted in a helical mount; a seven speed shutter is mounted behind the lens, and the plate mechanism is controlled by a lever beside the lens. All metal parts are nickel plated and the mechanism is very well produced.

This is the smaller 9x12 cm model for 12 plates and was not an inexpensive camera. In 1892 the original price of 330 French francs is the equivalent of approximately \$1775 US dollars today. 🍷



LABEL AFFIXED TO SIDE OF CAMERA



MAHOGANY CAMERA WITHOUT CASE



LA NATURE de 1899



PHOTO-GAZETTE de 1892

**LES VÉLOCIGRAPHERS**

Les **Vélocigraphes** inventés par le Docteur Ricard, sont très appréciés à cause de leur fabrication de premier ordre. Ils sont munis d'objectifs extra-rapides Hermagis. Magasin de 12 plaques, obturateur à pose et instantané.

Modèle 9 x 12 . . . . .	330
— 13 x 18 . . . . .	500
<b>Stéréoscopique 8 x 16. 480</b>	
— 9 x 18. 495	

Ces prix comprennent la guîne en cuir fort, vache unie, formant sac à excursion.



COMPTOIR GENERAL DE PHOTOGRAPHIE de 1894

**LES VELOCIGRAPHERS**

POUR PLAQUES

DIMENSION 9 x 12

**330** francs.

Fig. 15.

POUR PLAQUES

DIMENSION 13 x 18

**495** francs.

Fig. 16.

Appareil en acier verni muni d'un fort guêpe en cuir formant sac à excursion. Cet appareil contient 12 plaques. On obtient une très grande vitesse de tirage par un simple contact de la chambre. L'appareil n'a donc ni son ni sonnet. L'objectif Hermagis est muni de diaphragmes à iris ainsi que d'un obturateur rapide à pose et instantané.

Prix de l'appareil pour plaques 9 x 12 . . . . .	330 francs.
— 13 x 18 . . . . .	495
— stéréoscopique 8 x 16 . . . . .	480
— 9 x 18 . . . . .	495

PHOTO-HALL de 1896

THE 9X12 CM VELOCIGRAPHE WITH FRONT DROPPED TO SET SHUTTER AND EXPOSURE

Photographs by John Kantymir



HARD LEATHER CASE – CLOSED

FACE SHOWING LENS AND SHUTTER

140MM APLANASTIGMAT LENS

BACK REVEALING DROP PLATE



# JOHN LINSKY'S PRIVATE COLLECTION... MANY YEAR'S OF ODD COLLECTING

by John Linsky



JOHN LINSKY



THE BELL & HOWELL FILMO 75

Looking back over many years of collecting, I can relive fine moments of searching the many fairs and coming across a fine treasure that has brought me much pleasure. Now with father time pressing on I will have to find new homes for many of them..... We only have the pleasure of holding them for a short while, then must pass them onto new collectors.

To the left, I'm drawn to the Bell & Howell FILMO model #75 with an intricately tooled leather covering its whole body. The elaborate design bears remnants of the Art Nouveau movement. The camera was issued in 1928 as a 16mm cine camera taking 100 foot rolls. It has a spring motor and operates at 16fps. It has a Taylor Hobson f3.5 / 20mm fixed focus lens. A fond memory indeed.

On the other page I show two golden tweety birds (often referred to as "songsters") that photographers used to keep children happy and attentive. The bases are heavy to allow the birds to stand upright. But at the same time the bases are magnetic to cling to any metal close to the camera. Air-tubing ran to the stem of the bird enabling the camera operator to blow air and make the birds warble musically. These birds could flutter their wings and make their tails twitch making them more attractive. So started the phrase: LOOK AT THE BIRDY!

Here, I have a small version of the Zeotrope with which any child could experience the thrill of moving pictures. A band of variable printed images was placed inside the black cup which was given a spin on its base. One could glimpse the flickering inner image through the opposite passing slot. As each image was slightly different you experienced the effect of motion of the subject. Six different tapes were included with the kit.

This (Emil) Busche Pantoskop lens of Rathernow, Germany made quite a stir on the market ca1905 as it enable photographers to take wide-angle images that were impossible with other lenses. It was a true anastigmatic lens with external lenses of crown glass and internal lenses in flint. The curvature of its lenses was more pronounced than its predecessor, like the Harriston Globe. Very thin glass was required, making it difficult to manufacture. This Pantoskop No. 4 f/22 F:17cm came with a set of Waterhouse stops and a leather protective case.

My last offering is an early instantaneous shutter by J. Lancaster & Son (ca1890+) which the company boasted as selling over 30,000 units. Their advertising reads: "With this Patent Shutter almost any exposure may be given, as [elastic] bands of all strengths may be used, and two or three may be used at the same time; an exposure of 100th of a second can be obtained." 🐾



THE TWEETY BIRDS/ SONGSTERS



THE MOVIE MOTION ZOOTROPE KIT



THE EMIL BUSCHE PANTOSKOP LENS



LANCASTER INSTANTANEOUS SHUTTER

Photographs by Robert Lansdale



# A MYSTERY FROM JOHN KRUG WHERE WAS THIS PICTURE TAKEN?

by Robert Lansdale



ROCHESTER OPTICAL STANDARD  
FIELD CAMERA

John Krug of *Photographersofontario.ca* is seeking our help to find out where this photograph was taken. He believes: "The group photo we think is a local club in my home town (Tavistock, Ontario) and don't know if anyone is a photographer. Could it be a visual arts club? Social clubs were big at the time as there was little else to do in a small town unless you were into sports."

"It's possible that the photo was taken by Tavistock photographer A. O. Murray. Don't know if the cameras are the type that an amateur would own. The left one looks rather large for amateur use."

I, on the other hand, definitely think this is a group photo of the staff of a photo gallery each holding the sign of their trade. The women and man at the left-front are artists; the man at front-right is a darkroom man with printing frame in hand; the woman above him has a pencil or brush poking out of her costume which might indicate a secretary or accountant. On the back row we have at right a young man with a camera-on-stand holding his hat which might indicate he is the outside photographer; the woman in the middle is most likely the receptionist while the man at left holding a lens cap is the inside photographer. Krug comments that: "Tavistock is a small town, about 800 people at the time. In the 1901 census, the only person with a profession in any way was Murray himself. A studio just couldn't afford to have a large staff".

That little bit of background, at the upper left, showing windows might give us a clue if we can find the same background in another portrait – thus revealing the photographer. Can anyone give us some help?

As to the cameras being of professional or amateur use: the large camera at left is definitely professional for portraits. It is unable to be identified but the elaborate stand underneath seems quite old and bulky compared to ca1900 stands which used metal bracings. The smaller camera, at right, has the hall-marks of a number of manufacturers who all seem to have the same face pattern. But few had the lower label as seen in this Anthony Champion Variation 1A (below).



ANTHONY'S CHAMPION VARIATION 1A

John sent another photograph he hoped we could identify (in the upper right). Its metal trimmings soon identified it as a Rochester Optical Standard camera probably used for outdoor photographs.

This site was most useful for researching both camera images and catalogues: <http://www.piercevaubel.com/cam/index.htm>. Manufacturers are individually indexed with images enlarged to many; catalogues are awesome. ♣

# RYERSON AWARDS FOR BEST PICTURE BOOK

## PHSC SUPPORTS AWARDS

by Ashley Cook



Opening night of show and presentations.



Photographs Courtesy of  
Ryerson University

Sample books  
of the 80  
submissions.



Visitors and friends check over the winning entries of the *First Edition Photobook*.



Photographs by Clint Hryhorijiw

A few of the winners with PHSC presenter Ashley Cook. Left to right are: Jordanna Petrucci, Ashley Cook, Tegan Lopes, Austin Waddell, and Gabriell Tyrie who were in attendance.

In August 2019, Joanna Beyersbergen of the Ryerson University Library placed a proposal to the executive of the PHSC to participate in their *First Edition Photobook Award* as given by the Ryerson Library to the top books created by Ryerson University Photography Studies students as part of their course work.

Each year the Library purchases the top books in the class for fair market value. The award-winning books become part of Ryerson Library's Special Collections, which is noteworthy for its robust collections related to photography. The books are exhibited at the Library's Archives and Special Collections for some weeks and occasionally future exhibits. Of course, the books which now house those of 32 past award winners, become teaching tools and inspiration for new students.

The PHSC heartily supported the project with a multi-year donation of \$2,000/year for five years which enables the Library to increase the number of awards and to acquire more of these outstanding works.

This year's School of Image Arts awards ceremony and reception saw seven winners presented with their prizes by PHSC Vice President Ashley Cook to Teagan Lopes, Samuel Toward, Austin Waddell, Gabriell Tyrie, Yarden Haddie, Julie Ng and Jordana Petrucci.

The reception had visitors and students circulating to view the results of the student's creative efforts during their one-term third-year course, which teaches design and composition principles. Students conceive and produce a photobook based on their own photography. The completed books are judged at an end-of-semester exhibition. Originally done by the course professor and the Special Collections librarian, additional experts have been invited to help adjudicate in recent years. The *First Edition Photobook Award* was instituted in 2015 by Library Special Collections Curatorial Specialist Alison Skyrme and Image Arts Instructor Christopher Manson to recognize photography students who have made exceptional achievements in photobook production. 📖



# FROM OUR EXCHANGE MEMBER IN ROCHESTER

A REPRINT FROM THE TPHS NEWSLETTER, MARCH 2020

by Bruce Tyo

## WHEN KODAK AND GRAFLEX WERE ONE

In December 1899 when five camera manufacturers combined to form the Rochester Optical and Camera Company (ROC), George Eastman was not at first antagonistic toward the merger. But he soon judged that the newly forming company, which did not manufacture film or glass plates, was a threat to his business if they turned to the mass production of small simple cameras

their technology and products into his organization. This included such diverse organizations as Blair Camera and the Stanley Dry Plate Co. He now decided to do the same and build a professional division for the newly formed Eastman Kodak Company by purchasing the factories, inventory, and patents of successful manufacturers utilizing the huge profits Kodak was generating from camera and film sales worldwide. The first

company Eastman targeted and acquired was Rochester Optical and Camera itself. Despite making a line of quality cameras and darkroom equipment, it was poorly managed and running huge losses, resulting in its collapse in August 1903. Eastman bought the company for roughly one tenth of what it had been capitalized for three years before. At the same time he obtained their patents, including the one for the film pack, and the Premo brand name. Initially operating outside of Kodak, it took five years for George Eastman to pay to pay off the company's debt, it became the Rochester Optical Division of Kodak in 1908.

At the same time in 1903, Eastman concluded the purchase of the highly successful Century Camera Company, which was also in Rochester, and made Century's three owners/investors directors in his company to manage Kodak's Century



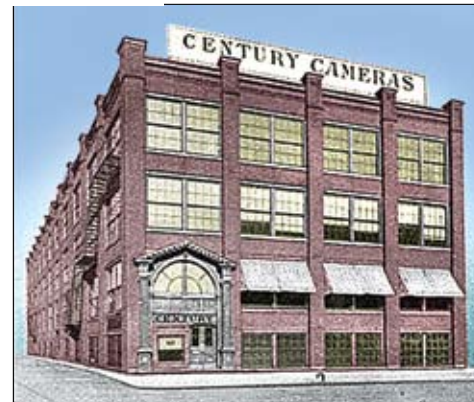
ROCHESTER OPTICAL AD

for the amateur market where his Eastman Kodak Company was overwhelmingly successful. He threatened William Carlton, president of Rochester Optical, with an injunction to stop the merger because they were monopolizing the camera industry, but later relented when Carlton agreed to make Eastman Kodak's stores the exclusive sellers of ROC cameras in the United States. This allowed Eastman to control the

distribution and sales of ROC cameras nationwide and would eventually lead to ROC failure in 1903.

To George Eastman having total control of ROC's sales did not end the possible threat that Rochester Optical represented to his company, it only delayed it, and the merger had exposed a weakness the highly successful Eastman Kodak Company had – that, although it had a huge market share worldwide in amateur camera sales with its Kodak and Brownie cameras and a near monopoly in the manufacture of flexible photographic film and dry glass plates worldwide, the company had almost no cameras to offer to professional photographers and had left that market to others in the United States and Europe as well.

Over the previous twenty years since the formation of the Eastman Dry Plate Company in 1881, George Eastman had continually made an effort to acquire competitors to incorporate



CENTURY CAMERA BUILDING

Division. Century was organized in 1900 and had quickly become recognized as one of the finest builders of folding cameras in the country. They had developed an interesting feature for their cameras, a revolving ground glass back, which allowed the camera to switch from a vertical to horizontal format with the release of a latch on the side of the camera body. This feature was soon to be incorporated into Kodak cameras as well.

The next year, even though the inventors had yet to release their newly designed wide-angle cameras onto the professional market, Eastman bought the Rochester Panoramic Camera Company which held the patents for what was to become the highly successful Cirkut camera and it was soon being produced by the Century Division.



EASTMAN KODAK  
BUILDINGS  
ROCHESTER

In 1905, Eastman completed the purchase of the Folmer and Schwing Manufacturing Company of New York City and moved its assets into the old Rochester Optical factory. Folmer and Schwing had begun as a maker of gas light fixtures and chandeliers twenty years before and later sold Sterling bicycles. They had also developed a series of cameras that could be carried on their bicycles as well. The Folmer-Schwing division of the company was organized in 1906, and it was renamed the Folmer-Schwing department when a second general reorganization of Eastman Kodak occurred in 1917. William Folmer, a prolific inventor that Eastman compared to William Walker in ability, also came to Rochester and was put in charge of the new division. He would remain as managing director until 1926.

By 1915, George Eastman had completed the acquisition of twenty-one dry plate, photographic paper, camera, and film base competitors and had shut them all down. He moved some assets to Rochester and folded them and their employees into his corporate structure. But at the same time Eastman Kodak's expansion drew the attention of the U.S. government which then charged that the company held a 72 percent monopoly worldwide and directed them to divest itself of some of its assets. The company appealed the decision over and over again, but by 1921 had no choice but to begin the break-up of the huge conglomerate that Eastman had built over the previous twenty years.



WILLIAM FOLMER

Although the decision could have disastrous results for the company, it eventually only made a brief impression on Kodak's bottom line as the company was allowed to retain its highly profitable film and motion picture film capability and kept its dominance in the lucrative amateur photography market. They make a decision to end the manufacture of



Premo film pack cameras for amateur use manufactured by the Rochester Optical Department and then to shut the department down entirely. The photographic paper assets were sold to the Defender Photo and Supply Co. of Rochester, and they disposed of the Seed, Stanley, and Standard Glass Plate operations.

The Folmer-Century Department of the company was sold to Clark Williams & Co. of New York City in 1926. The newly formed organization, now entirely removed from Eastman Kodak, was to remain in Rochester and would manufacture cameras as the Folmer-Graflex Company. The Folmer-Century Department of Eastman Kodak had also taken over the manufacture of

Cirkut cameras years before and Folmer-Graflex would continue to make these complicated and expensive cameras until the late 1940s. In 1946, it was renamed Graflex Inc., and it became a division of General

Instrument Precision Co. in

1956. In 1968, suffering losses in competition with the growing 35mm camera industry, its assets were sold to Singer Corporation which finally decided to cease operations in the early 1970s.

During its time as part of Kodak, the Folmer-Schwing Division and the Folmer-Century Department had built some of the most highly recognized professional cameras to come into general use by 1912, including the Speed Graphic and the RB (Rotating Back) focal plane shutter cameras, and fulfilled George Eastman's desire to create a professional division for Eastman Kodak that was unchallenged for years. ■



EARLY SPEED GRAPHIC CAMERA



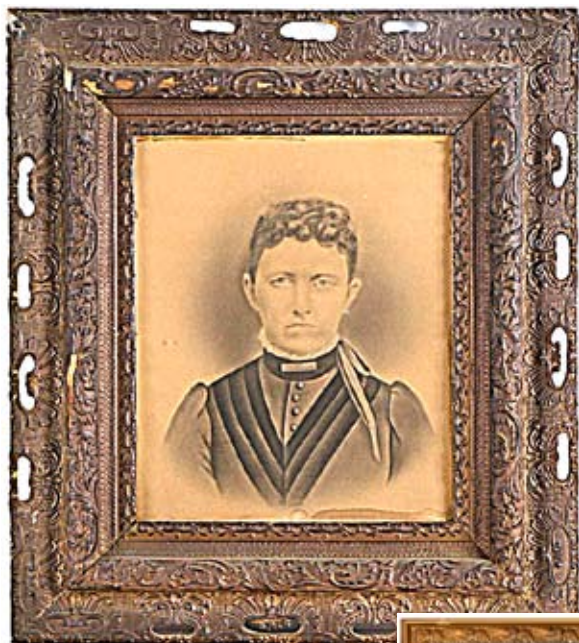
SEED DRY PLATE BY CANADIAN KODAK



# THE CRAYON PROCESS

## ENLARGED PORTRAIT PRINTS

by Robert Lansdale



Typical Crayon portrait with period “carved” frame found now-a-days in antique fairs and shops. Mostly found as B&W artwork from factory-lab production.

Audrey Mason queried PHSC about an old family picture stored in her garage from which they wanted to re-purpose the frame. With such a fine colour Crayon, we advised to preserve the art piece in a local archive. Impressed, she reassembled the picture and moved it to an honoured place in her home. The print was mounted with a metal (lead) backing.

Joan Seed queried what kind of photograph this portrait might be in an oval frame. The quality shows great talent of the artist to produce a living portrait through the Crayon process. Restored with loving care, the art piece and ornate frame could be finished off with a convex bubble glass cover to fit the times. The metal (lead) backing/support protected the print from damage, whereas wooden-shingle backing would eventually have stained or discoloured the image.

Enlarged portraits of great grandparents, now often found in antique fairs and shops, came to the forefront with the invention of the widely successful solar enlarger by David A. Woodward in 1857. The solar camera came in two sizes, half plate with a big nine inch condenser, and quarter plate with a five inch condenser. Woodward, as a portrait painter, was interested in making enlarged copies of photographs on canvas to paint over. Using this instrument he could print life-sized portraits (18”X 22”) from a half plate negative in about 45 minutes.

But the enlargement, more often, fell apart in detail and showed its ugliness and flaws. So artists were set to work to over-paint the details to make the portrait beautiful or at least improved, depending on the artist’s skills and talent.

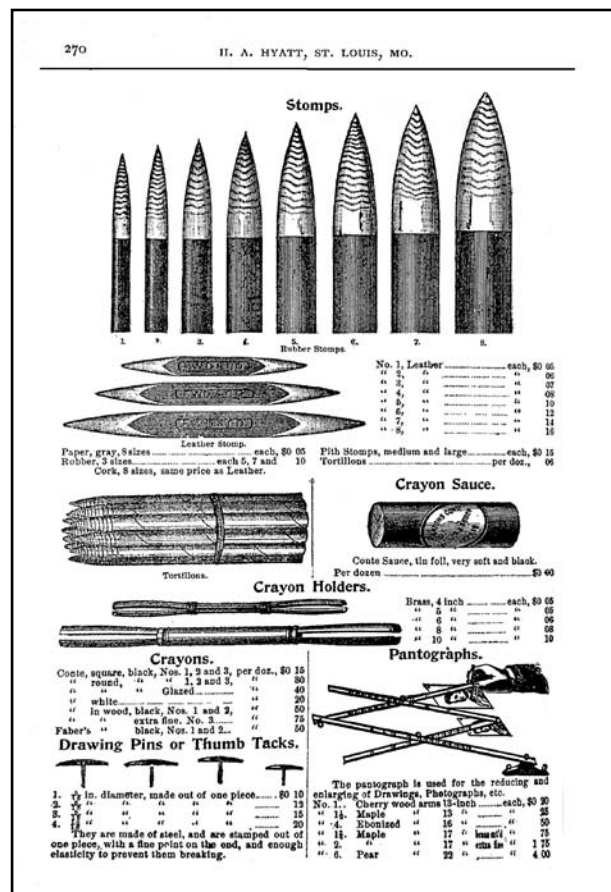
An over-painting system developed for daubing on water-based tempura paint with a blunted paper taper, called a stomp. This was a rolled-up paper or leather, like a pencil, with a sharp tapered end for detailing OR could be blunted down on the end for broad stroke effects

The colouring (Conte sauce) was referred to as “crayon sauce” and so passed on its name to the process. Wetting the end of a blunted stomp into shades of black-to-white, the paint was transferred to the print in a series of daubs to match and maintain the shade and shape of the image. Most images seem to have been done in black and white but others were done in colour.

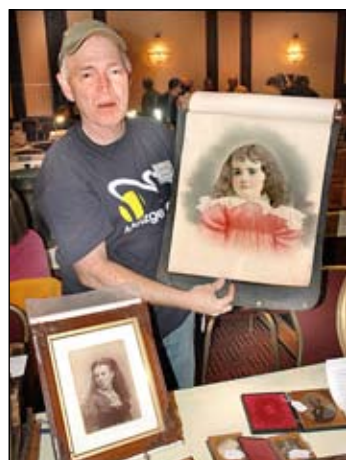




Factory-labs were soon set-up in larger cities to handle the manufacture on a production basis. Salesmen were sent to scour the suburban communities with samples of completed work. Mounted on window-blind canvas, there were usually four examples of the best quality which could be rolled up into a protective cover against bad weather. Town photographers protested against the salesmen as they were taking money out of their communities without paying taxes or securing a license. Of course there were schemers who secured sales and deposits, then absconded with the funds and never came back. Those buying into the enticing bargain price (\$3.50) found they had to pay a hefty additional fee for the frame when the finished product was delivered. An existing Cabinet portrait was requested by the pitchman from which to copy the head. Often artwork was applied around the head to separate the image from the background making it easier for the artist to complete the crayon artwork.



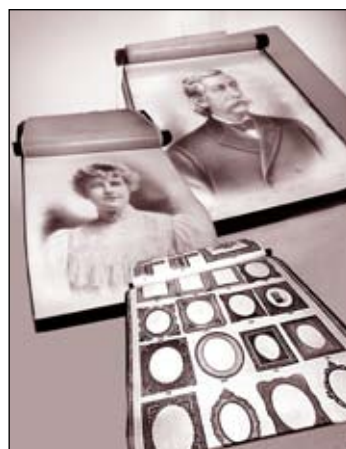
H.A. Hyatt catalogue of 1899 shows stumps and crayon sauce.



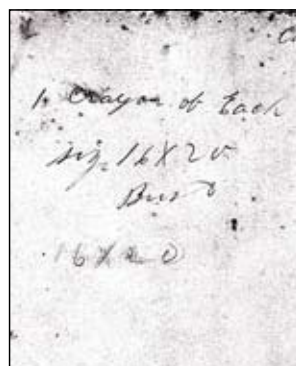
Dealer shows a crayon art sample.



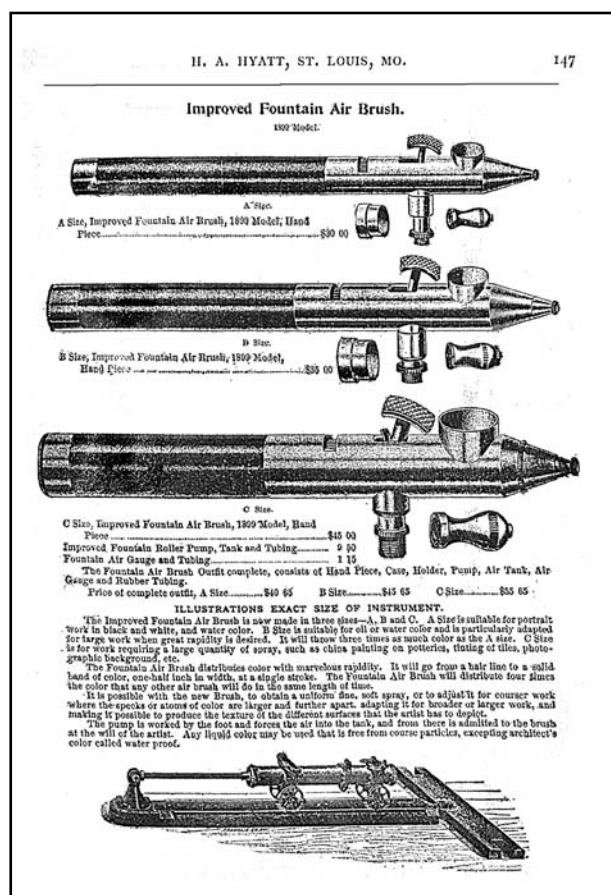
Portrait used for crayon copy.



Images on linen secured to large dowel with frame sample page.



Cabinet card has indications of painting to separate head from background. Verso has details for 16x20 Crayon of each.



H.A. Hyatt catalogue shows variety of Air Brush units current in 1899 and power unit for the required compressed air.



**AGENTS WANTED** For fine Family Portraits in India Ink, Water Colors and Crayon. Samples and outfit free. For terms address AMERICAN COPYING CO., 530 W. Madison St., Chicago.

The American Copying Co. of Chicago advertised for agents to venture forth as their Crayon salesmen with a free outfit.

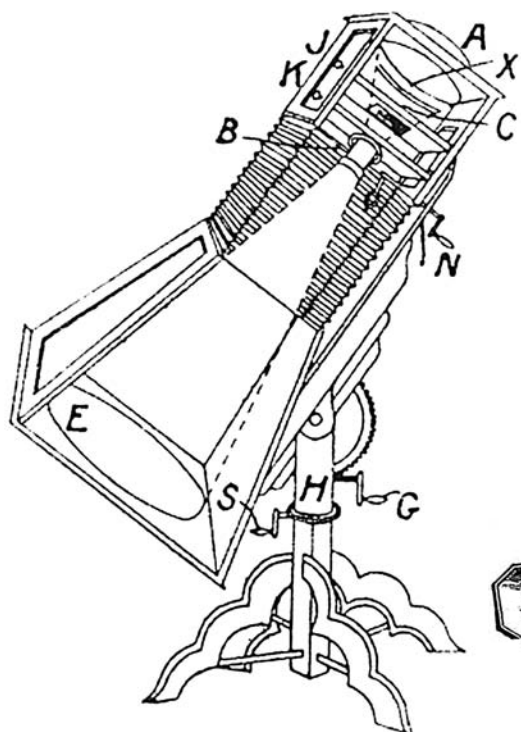
## INTERNATIONAL COPYING - and ENLARGING CO.

Electric Solar Prints, Canvas Prints, Bromide Prints. Finished Work done for the Trade. Work done in Crayon, Air Brush, India Ink, Water Colors and Oil, on Paper or Canvas.

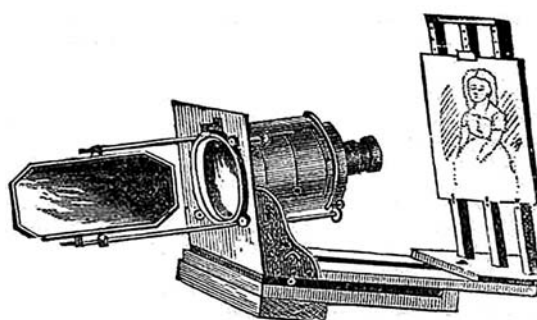
**J. H. CLINE, Manager, 322 Spadina Ave.**

**SIXTEEN YEARS EXPERIENCE.**

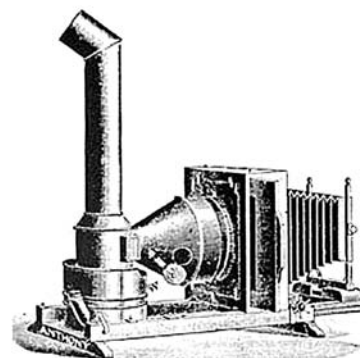
J. H. Cline of Toronto offered commercial enlarging services for lab processes which photo studios could not handle.



A large solar camera was patented by David Shrive of Philadelphia in 1859 used outside in the open air.



In 1874, David A. Woodward patented a modified instrument mounted in a darkroom window. A mirror directed sunlight into the unit.



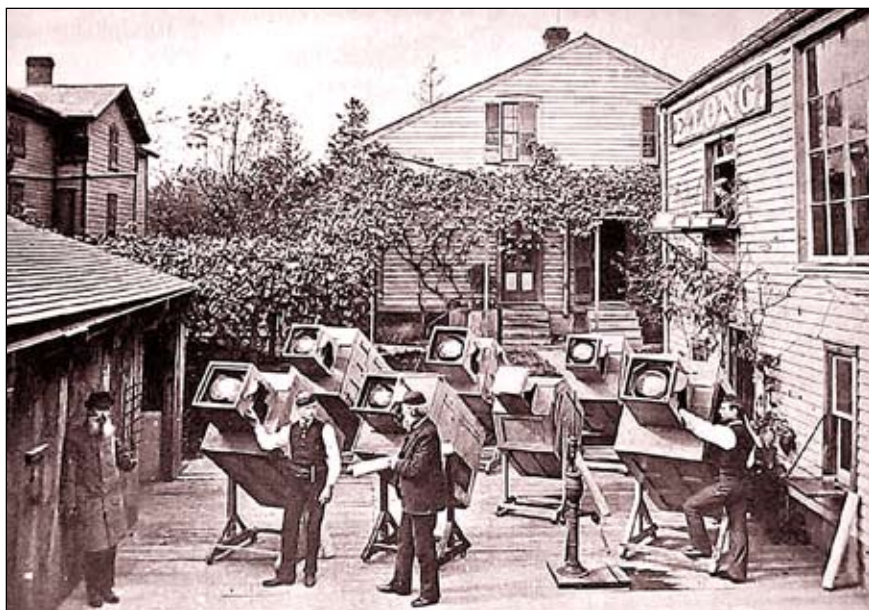
Faster Bromide paper of 1880+ had inventors create enlargers using gas etc. for illumination.

It was imperative to keep the enlarger/camera pointing towards the sun as it moved across the sky. So the image was deliberately under-printed to prevent blurring during the long exposures on albumen or salted papers. Groups of enlargers were arranged in open yards or on roofs. Photographers could also mount an enlarger in an attic with a removable roof.

In 1874, Woodward patented a modified instrument that could be mounted within a darkroom window to redirect the sunlight with a mirror to project an image onto an easel inside the darkened room. Independent photographers took up the system but others relied on shopping-out the order to the factory labs. J.H. Cline on Spadina Avenue in Toronto offered a full-lab service in 1894 for Electric Solar Prints, Canvas Prints, Bromide Prints, Crayons, Air Brush, India Ink, Water Colours and Oil. He offered finished work for the Trade.

The arrival, in the 1880s, of the Bromide process produced photographic paper with much greater speed. So lantern projectors were converted to enlargers; they were equipped using acetylene or other gases and illuminants. This enabled more photographers to venture into enlarging of prints and working productively during free evenings.

The biggest advance in crayon portrait production came with the invention of the air brush by Abner Peeler with a patent in April 1882. He sold his first "Paint Distributor" for \$10. A subsequent new assignee Liberty Walkup and brother Charles promoted and improved it with Peeler's help. But Charles Burdick introduced a revolutionary internal-mix airbrush with a finer more controlled spray. Then Thayer & Chandler exhibited an even better unit at the Columbian Exposition in 1893. Ultimately the air brush took over the "Crayon" portrait production and pushed the arduous "stomping" system into the background.



Solar cameras were set up in yards and on roofs of photo studios. Cameras had to be adjusted to follow the sun, others had auto-heliostats.

Photograph Courtesy of Matthew Isenburgh