

Newsletter of the Michigan Photographic Historical Society

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Arthur Honore Radiguet (1850–1905) Four radiographs, circa 1896-1898. Silver-gelatin transparencies on glass, each 8.5 cm x 10 cm. (Private collection)



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Message from the President

Hello members!!

Please enjoy your newest *Photogram* done by our new editor, Mary Desjarlais. She readily volunteered to pick up the (heavy) ball and we're very grateful to her. She comes to this editorship with three books under her belt so she knows what to do! So please help her out on the fall issue by coming up with a member's favorite, OK? This is



being written in the final planning stages of the spring MiPHS photographica show, but by the time you receive it, the show will be history. The show will be covered in the next issue. Hopefully, you were there and found a lovely treasure for yourself. The fall show will be on the last Sunday in October, the 28th.

What else... What else... MiPHS has a Facebook page. We haven't used it much, but we can in the future. We sure used it to notify the world of our show to the tune of over 3,000 people now know about it. Hopefully, a few will come and make the dealers happy. MiPHS also has a group on Yahoo where I can post things of interest. The items come from members, the Photohistory list and Dan Hausman of the Ohio Camera Collector Society. You can also join the OCCS list on Facebook to get ALL of Dan's tidbits from him scouring the Internet.

The MiPHS board has voted again to donate funds, matched by UofM, to the Clements Library for an intern to work on Dave Tinder's collection of Michigan photographs. The cataloging is well on its way and the scanning can begin. The goal is to have these images online and searchable. It will be organized by county the way Dave organized the photographs himself. They probably would like to get that done before Dave's 10,000 plus Real Photo Postcards go to the Library. Can't imagine scanning those. Probably take me forever as I'd want to read the backs.

Hang in there everyone ...! Flea market season is right around the corner.

Cindy Motzenbecker

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THE PHOTOGRAM welcomes contributions to its pages from both MiPHS members and non-members. To submit an article, review, occasional photo ad (MiPHS members only) or informational item for publication, write to:

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SUBMISSION DEADLINES:

June 1 (July-Summer issue) August 1 (September-October issue) October 1 (November-December issue) January 1 (February-March issue) March 1 (April-May issue)

The MICHIGAN PHOTOGRAPHIC HISTORICALSOCIETY is an organization dedicated to advancing an understanding and appreciation of the history of photography through membership meetings, special events and publications, and through shared endeavors with other organizations and the general public. The MiPHS is a 501(c)3 nonprofit corporation chartered by the State of Michigan.

The MiPHS welcomes new members. Dues are \$35 per year (January 1- December 31), \$15 for students with valid ID. For information or application form, call 248.549.6026, visit us online at *www.miphs.org* or write to:

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Water Developed Plates

By Martin Magid

One facet of the history of photography involves the continuous search for an easier, more efficient way to produce a photographic image. The changes from labor intensive Daguerreotypes to today's automatic digital devices make everyone into photographers. No longer must a photographer know chemistry, mechanics or electricity, nor is it even necessary to read to shoot a prize-winner. "Press The Button" replaced "You Press The Button, We Do The Rest" years ago.

Readers of this journal know of the dramatic changes in photography such as dry glass plate negatives replacing wet plate processing, flexible film replacing glass, the introduction of roll film, and Polaroid instant film. However, the basic developing process for silver emulsions remained constant: Place the exposed medium into a developing solution, then transfer it to a solution to stop development, then put it into another solution to "fix" the image. All processes had this in common.

A product which greatly simplified processing and avoided the process described above escaped the attention of most of us interested in photographic history and its processes: Silver emulsion glass plates developed and fixed by immersing the plates in plain water.

Sir John Herschel introduced a water developed salt of iron emulsion in 1839, immediately following the Daguerre and Fox Talbot announcements. Herschel's cyanotypes



The C.P Stirn Concealed Vest Camera gave the option of using either standard glass plates or water developed glass plates.



The cover of the Stirn & Lyon catalog includes an illustration of the enlarger for the very small negatives made with the C.P. Stirn Concealed Vest Camera.

produced beautiful Prussian blue images, and the process became very popular, not least because of its simple water bath development.

But no water bath development of silver images appeared until March 9, 1888, with Leo Backelandt's British Patent Specification Number 1,201. Backelandt's historical fame was secured some years later by his inventions of Bakelite and Velox, the photographic printing paper. He was Belgian, and graduated with honors from the Ghent Municipal Technical School. His academic record earned a scholarship to the University of Ghent, where he acquired a Ph.D. *summa cum laude* and became an Associate Professor of Chemistry.

Backelandt's water developing plates had dried sensitized emulsion on one side of the glass plate. A technician then brushed developing solution on the non-emulsion side of the plate. When both sides were dry, the plate was ready for the camera. A test of the plates was reported by *The Amateur Photographer*:

"To develop, two ounces of water are placed into a 5 X 8 tray, then the plate is immersed, care being taken to quickly flow the water over the film to evenly wet it. After rocking the tray half a dozen times the plate is slightly lifted at one end with the finger and the tray gently rocked to wash the water against the under side of the plate, thereby dissolving out the salts faster and making the development proceed more rapidly."

The testers commented that the negatives made satisfactory prints, and would be convenient to the tourist who did not bring bottles of chemicals. However,



C. P. Stirn's "Star" Enlarging Apparatus and Magie Lantern.

This Apparatus will make enlargements from C. P. Stirn's Concealed Vest Camera pictures up to 20 inches in diameter. The operation of enlarging is exceedingly simple and fully explained in the directions.

The "Star" Apparatus is provided with a fine Aplanatic Lens especially made for it. It is constructed in the most substantial manner, of brass and tin ('lack japanned), and furnished with a brilliantly barning kerosene oil lamp.

Artists can project pictures from their Negatives with this Camera direct on the canvas and then sketch the outlines.

It can also be used as a Magic Lantern, the Negatives serving as slides to be shown on a white wall or sheet.

The enlarger made for the small negatives produced by the C.P. Stirn Concealed Vest Camera.

the negatives required fixing, and the cost of the Backelandt plates exceeded the cost of standard plates plus developer.

The Backelandt water developed plates were advertised in a catalog for products from Stirn & Lyon of New York City, date unstated. They are listed as an accessory for the

famous C.P. Stirn Concealed Vest Camera. The smaller Model No. 1 of the camera sold for \$10.00, which included six standard circular 1-3/4 in. diameter glass plates, each of which made six images (the brochure also offered an enlarger specifically for the tiny negatives produced by the Stirn camera). A dozen circular "Dr. Backelandt patent plates" were available for \$1.50, compared to \$1.20 for a dozen standard plates. Stirn & Lyon sold the camera during the period 1888-1890.

The higher price for the Backelandt water developed plates, and their need to be fixed anyway, were the likely factors in the product not becoming popular. Also, as the Chemist and Druggist Newsweekly pointed out, "mechanized" development operation prevented "brains" from affecting the "art of development." Also, inadvertent contact between the backside of a plate and the light sensitive side of an adjacent plate caused scratching of the surfaces, a problem that did not exist with standard plates.

On June 2, 1900, John Edward Thornton and Charles Frederick Seymour Rothwell were granted British Patent Specification No. 17,292 for improvements in water developed plates. They combined "the fixing medium with the developer so that when water is added the mixture effects the two functions of developing and fixing the image." In effect, the dried mixture on the back of the plates created a monobath when the plate was immersed in water.

Thornton and Rothwell also claimed their invention "renders a dark room entirely unnecessary as the plate can pass from the camera after exposure direct into a trough or tank in which it is both developed and fixed.... It is possible to remove the plate from the tank in daylight not hitherto possible."

The inventors also said the necessary washing operations could be left for later, after the operator returned home. Thornton and Rothwell provided as part of their patent the formulas for a developer and for a combined developer and fixer, a very unusual accommodation in my experience searching for process patents.

Five years later, in U.S. Patent No. 786,535 (1905), Thornton and Rothwell further improved their plates by adding a protective layer to prevent mechanical abrasion between adjacent plates.

The use of glass plates treated on both sides to permit development and fixing of an image by simply immersing them in water never caught on. While I have found no commentary on the subject, I suspect the quality never reached the level of standard plates. Also, by the time of the

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	" " " " No. 2,
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The price list for Stirn & Lyon products includes Backelandt water developed glass plates.

Thornton-Rothwell improved patent, flexible film plate and rollfilm were in general use, and even standard glass plates were on their way out of general use, though glass plates are still used for specialized scientific purposes. However, it might be fun to try the improved process by using homemade glass plates with Liquid Light or its equivalent for the sensitive emulsion. If you do, let us know how it works.

Martin Magid is a former President of MiPHS and Editor of The Photogram. He has degrees in engineering and law from Wayne State University in Detroit. In his retirement he takes photographs with the cameras in his collection, builds pinhole cameras, and enters a photograph on the internet every year for World Wide Pinhole Day, the last Sunday in April.

Sources:

Stirn & Lyon, C.P. Stirn's Patent Photographic Concealed Vest Cameras, Panoramic Cameras, Enlarging Apparatus and Photographic Materials for

CALENDAR OF EVENTS

April

Through April 29: "Detroit Revealed: Photographs 2000-2010," photography exhibit at the Detroit Institute of Arts.

April 1: Mid-America Camera Show: Omaha, Nebraska, Fireman's Hall 60th & Grover (One block north of I-80 on 60th), www. camerashow.biz.

April 14: 32nd annual PSPCS Sale Swap & show: Puget Sound Photographic Collectors Society - Kent Commons in Kent, Washington, www.pspcs.org.

Apr 14-15: PHSNE "Photographica 77" - Photographica Show and Sale, Americal Center, Wakefield, MA, www.phsne.org.

Apr 14-15: F-Stop Swap Used Camera and Collectable Image Show and Sale Brooklyn Park Community Center, 5600 85th Avenue North, Minneapolis, Minnesota, www.F-Stopswap.com.

April 22: Wolverhampton Camera Fair Wolverhampton Racecourse. Dunstall Park, Wolverhampton, United Kingdom. Contact: Russell Friend (07710 744002) and Paul Wrede (07752 590255). Website: www.camfair.co.uk.

April 28: MiPHS Annual Dinner and Lecture.

May

May 6: The 42nd Annual International Camera & Image Show and Sale, Holiday Inn Chicago North Shore, 5300 West Touhy Avenue, Skokie, Illinois, www.chicagophotographic.org.

May 12: Photo Fair: San Jose, CA

May 25-26: Ohio Camera Collector's Society Annual International "Original Collectors Show" Auction - Show - Sale, The Aladdin Shrine Center, 3850 Stelzer Rd. Columbus, Ohio.

May 27: Spring Fair Photographic Historical Society of Canada - PHSC at Soccer Centre, 7601 Martin Grove Road, Northwest of Downtown Toronto (Woodbridge), Canada, 1/4 km south of highway 7, www.phsc.ca.

Patents:

British Specification No. 1201, 9 March 1888, Improved Photographic Plate to be Developed in Water, Dr. Leo Backelandt, Belgium, patentee. British Specification No. 17,292, 2 June 1900, Improvements in Photography and Connected with the Operations of Developing and Fixing, John Edward Thornton, Cheshire, and Charles Frederick Seymour Rothwell, Lancashire, patentees.

Google Books:

British Journal of Photography, February 22, 1907, pp. 146-147. Chemist and Druggist: The Newsweekly for Pharmacy, Vol. 35, p. 344. Scientific American Cyclopedia of Formulas, p. 681.

Wikipedia: Backelandt, Leo. Cyanotype history. Stirn & Lyon. Water-developing plates.

Worldwide Pinhole Photography Day

Worldwide Pinhole Photography Day is always the last Sunday of April, or April 29th this year. Everyone gets to put a pinhole photograph taken that day on the website. See www.pinholeday.org.

June

June 2-3: Bièvres International Photofair, Bièvres, France, www.foirephoto-bievre.com.

June 24: Wolverhampton Camera Fair Wolverhampton Racecourse. Dunstall Park, Wolverhampton, United Kingdom. Contact: Russell Friend (07710 744002) and Paul Wrede (07752 590255). Website: www.camfair.co.uk.

Tom Hinson to Speak at MiPHS Dinner

The MiPHS Annual Dinner and Lecture is fortunate to have Tom Hinson, Curator Emeritus of Photography, Cleveland Museum of Art, as their guest. He will be speaking on "Building a Collection: A Tale of Opportunity, Means, Generosity, and Luck."

From 1973 through 2010, Tom Hinson wore numerous curatorial hats at the Cleveland Museum of Art, initially as a curator of modern and contemporary art and then as the founding curator of photography. Besides adding significant works to the modern and contemporary art collections, he provided the curatorial leadership in building, almost from scratch, a small but substantial photography collection surveying the history of fine art photography. During his career at the museum, Hinson was the curator in charge of some 185 exhibitions including more than 100 shows, featuring primarily individual presentations of contemporary photographers from around the world. He authored exhibition catalogues and numerous articles for the museum's publications and lectured, participated in panel discussions, and juried local, statewide, and national exhibitions. Hinson is the recipient of a number of awards for his contributions to the Cleveland art scene, most recently in 2011 when he was recognized by The Cleveland Art Prize.

Arthur Honore Radiguet (1850 – 1905)

Optician, Maker of Electrical and Scientific Instruments, Pioneer Radiographer, and Martyr to Science

by Wm. B. Becker



Arthur Radiguet making a radiograph (x-ray) of a recumbent man. Photograph by Radiographie Radiguet, ca 1898. (Wellcome Library, London)

Within months of Wilhelm Roentgen's December 1895 announcement of the discovery of X-Rays, Arthur Honore Radiguet produced, demonstrated and sold X-Ray apparatus in France. In 1896, Radiguet won a Gold Medal for X-Ray equipment shown at the National Exposition at Rouen. The same year, his firm published an important work, *Techniques Medicale des Rayons X* by Abel Buguet. In 1897, *La Nature* described a "neo-occultism" séance staged as an entertainment by Radiguet, in which X-Rays from a hidden Crookes tube (of Radiguet's manufacture) were used to give an eerie glow to objects and liquids in a darkened room. By the end of 1898, Radiguet was advertising the availability of hundreds of X-Ray photographs, on paper and "on glass for projection;" the catalogue listing these images was described as the "new edition" of the "Musee Radiographique Radiguet."



Arthur Honore Radiguet (1850 – 1905) Radiograph, circa 1896-1898 Silver-gelatin transparency on glass, 8.5 cm x 10 cm. (Private collection)

On October 6, 1899, Radiguet entered into a business partnership with his son-in-law, Georges Jules Massiot, and later that month the new firm acquired Molteni, an important maker of projection devices. The new company was called Radiguet et Massiot; its address reflected an expansion of the firm's premises on 15 Boulevard des Filles-du-Calvaire to 13 & 15 Boulevard des Filles-du-Calvaire.

The X-Rays on glass illustrated here were found in their original wooden box. This box is emblazoned with advertising labels inside and out, providing clues to the very early date of these radiographs. One of the labels offers Abel Buguet's 1896 book on the medical uses of X-Rays -- "vient de paraitre," meaning "just published." In addition, none of the transparencies carries a catalogue number higher than 266. It therefore seems likely that these early radiographs were produced between early 1896 and December 1898 when Radiguet advertised the availability of 400 subjects in his "Musee Radiographique." They were certainly produced before the Radiguet firm's name change in October of 1899.







Arthur Honore Radiguet (1850 - 1905) Four radiographs, circa 1896-1898. Silver-gelatin transparencies on glass, each 8.5 cm x 10 cm. (Private collection)

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Advertisement from Archives d'électricité médicale vol VI, no. 72 (15 December 1898). (Private collection)

Unfortunately, Arthur Honore Radiguet's pioneering work in X-Ray photography carried a heavy price. By 1900 he was experiencing the effects of excessive radiation exposure to his hand. He suffered from radiation poisoning for several painful years before succumbing to cancer at the age of 56. It was later reported that M. Radiguet was "fervently grateful...that he had been permitted

In Memoriam - Eleanor Callaban

Eleanor Callahan... inspiration, fascination and subject of many images by Detroit photographer Harry Callahan, died of cancer February 28th at the age of 95.

Eleanor Callahan was born in Royal Oak, Michigan June 13, 1916. She met Harry Callahan on a blind date in 1933 when they were both working for Chrysler. She was a 17 year old secretary and Harry, at 21 years of age, was a clerk in the parts department. They married in 1936. When Callahan became serious about photography in 1938, Eleanor and later their only child Barbara who was born in 1950, became the subject of hundreds of Harry's photographs.

The Callahans moved to Chicago where Harry was hired by László Moholy-Nagy in 1946 to teach at the Institute of Design in Chicago. Eleanor managed Harry's business affairs and often earned more money as

for Abel Buguet's Technique Medicale des Rayons X (1896). (Private collection) existence sufficient to establish reliable evidence of the

OGRAPHIE

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Side label from box of Radiguet X-Rays, with advertisement

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PHOTOGRAPHIE

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effects of (Roentgen) rays upon the human organism." ("Martyrs to Science," Medical Times, vol 37. New York, Nov. 1909, p. 813.)

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an office assistant than Harry earned as a teacher. They later moved to Providence, Rhode Island and finally settled in Atlanta, Georgia.

An innovative and experimental photographer, Harry Callahan made masterpieces in black and white and color. In his photographs of Eleanor, he used multiple exposures and contrasts of dark and light while successfully achieving a spontaneous intimacy with an 8x10 view camera.

The photographs of Eleanor by Harry "rank with Alfred Stieglitz's of Georgia O'Keefe," according to Richard B. Woodward, writing in the New York Times. Eleanor was "one of the most recognizable models in the history of 20th-century photography, an inseparable part of both the life and work of one of its most renowned artists." ("Eleanor Callahan, Photographic Muse, Dies at 95," New York Times, Feb. 28, 2012)