

From Daguerreotype to Autochrome: An Incursion in European, Colonial and Romanian Pharmaceutical and Medical Photography

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Abstract: Pharmacists have the ability to be chemists and that is the reason they possess the knowledge to make photographs. For that purpose, especially in the 19th century, some pharmacists were photographers, so the two professions are related to a certain extent. The daguerreotype was an invention that was brought to the attention of the public in the summer of 1839 in Paris by Louis Daguerre. Although it was a French invention, it enjoyed a huge success in the United States, and for that purpose the most numerous daguerreotypes derive from the American continent. Some daguerreotypes from the pharmaceutical and medical domain will be presented in this work: a picture of the pharmacist Martin (Gamas), of the physician Charles Abadie and of the physician Gustave Adolphe Raichon. The description of the daguerreotypes will include some other particular examples of empirical restoration from the collection of the author. Another type of photography, important for the history of photography, is the *autochrome*, one of the first colour photographic process available to the public. It was invented by the Lumière brothers. An example of medical photography from colonial France (Morocco), portraying a case of leprosy, will be presented as well. In the end, some examples from the European and Romanian photography will illustrate the role of the pharmacy and of the pharmacist in the 19th century-early 20th century, as a snapshot of the health professional of that period. In conclusion, the picture speaks for itself and somehow, it can be a vivid time machine for the

reconstruction of the past, not only in the fields of pharmacy and medicine, but in any other field as well.

Keywords: Daguerreotype, autochrome, pharmacy, medicine, old photography, photography collection.

Rezumat: De la dagherotip la autocrom: O incursiune în fotografia farmaceutică și medicală din Europa, colonii și România. Farmaciștii posedă cunoștințele necesare în domeniul chimiei și de aceea ar putea practica și arta fotografiei. Astfel mai ales în secolul al XIX lea, unii farmaciști erau fotografi, deoarece aceste două profesii sunt oarecum înrudite. Dagherotipul a fost o invenție prezentată publicului larg de către Louis Daguerre, la Paris, în vara lui 1839. Deși a fost o descoperire franceză s-a bucurat de un mare succes în Statele Unite, de aceea cele mai multe dagherotipuri sunt de origine americană. Unele dagherotipuri din domeniul medical și farmaceutic vor fi prezentate în această lucrare: o fotografie al farmacistului Martin (Gamas), a doctorului Charles Abadie și a doctorului Gustave Adolphe Raichon. După descrierea dagherotipurilor vor fi prezentate și câteva exemple de restaurare la nivel amator din colecția autorului. Alt tip de fotografie, important pentru istoria fotografiei, este *autochrome*-ul, unul dintre primele procedee fotografice color accesibile publicului larg. A fost inventat de către frații Lumière. Va fi prezentată o fotografie medicală din Franța colonială (Maroc) care documenta un caz de lepră. La final, unele exemple de fotografie europeană și românească vor ilustra rolul farmaciei și al farmacistului, în perioada cuprinsă între secolul al XIX-lea și începutul secolului XX, ca un instantaneu al profesioniștilor din domeniul sănătății din acea perioadă. În concluzie, imaginea vorbește de la sine și poate fi o însuflețită mașină a timpului pentru reconstrucția trecutului, nu numai în domeniile medicale și farmaceutice dar și în oricare alt domeniu.

Cuvinte cheie: dagherotip, autocrom, farmacie, medicină, fotografie veche, colecție de fotografie

Introduction. From daguerreotype to autochrome

The daguerreotype (from the French word *daguerréotype*) is a process presented to the general public in August 1839 by Louis Jacques Mandé Daguerre (1787-1851), after several years of improvements. The process is a directly positive photography. The process consists in obtaining the image on a polished plate with silver deposited onto copper, mechanically or electrolytically. The plate is first exposed to halide fumes. The image is formed by amalgamating silver from the photochemical decomposition of silver halides with metallic mercury. The remaining unreacted silver halide can be complexed with sodium thiosulphate. The image can be adhered on the plate with the aid of heat and gold salts.¹

Other cheaper techniques, such as calotype / talbotype or ambrotype, have been used to replace daguerreotype at the beginning of 1850s. The only disadvantage is that the quality of the image is diminished, if we were to compare the "mirror with the memory".

The disadvantage of the pictures of that period was that they did not reveal the true colour of nature. Although there were several attempts, only at the beginning of the 20th century, one of the first successful process of colour photography, the *autochrome*, became available to the public. It was invented by the Lumière brothers. It was marketed starting 1907. The colour is formed by microscopic colour grains of potato starch which act as a filter. The autochromes were produced on glass plates and later on celluloid².

Pharmacists and photography

The pharmacists who possessed better knowledge of chemistry were interested in the chemistry of photography.

We could quote several European examples:

-**Anton Drobac**, who made daguerreotype portraits in 1844, thus being the first daguerreotypist from Adriatic Coast³;

-**Ludwig Angerer**, a Slovak military pharmacist, who made photographs of Bucharest between 1854-56; he then abandoned the military career and set up a photographic studio in Vienna⁴;

¹ Beaumont Newhall, *The history of photography: from 1839 to the present* (New York: Museum of Modern Art; London: Thames & Hudson [distributor], 1982), 18, 19, 27; M. Stănescu Y. Marec, *Mirrors of the past: the daguerreotypes and some connections with the history of pharmacy and medicine* (Work presented on the XXVIIIth National Reunion of History of pharmacy, Sibiu, October 2019).

² Bertrand Lavédrine; Christine Capderou; Jean-Paul Gandolfo, *The Lumière autochrome: history, technology, and preservation* (Los Angeles: Getty Conservation Institute, 2014), 1.

³ <http://bib.irb.hr/prikazi-rad?rad=649352> (accessed April 2021).

- *Gabriel Veyre*, a French pharmacist who worked as a film director and as a photographer⁵;
- *István Szentkuty*, a pharmacist from Pest, who, on the back of the cardboard of the *carte-de-visite* photograph, had inscribed the titles as *Pharmacist and photographer*. At that time, these titles were rarely found on the photographic cardboards; the titles of painter and photographer were usually inscribed on the back of the cardboard.

1. *The daguerreotypes*

The daguerreotypes collection started in 2014 and, as of April 2021, it contains 135 photographs. They are in most part portrait-types of a single person, as well as group portraits of 2 to 8 persons. The collection has 3 stereo daguerreotypes and an outdoors daguerreotype, which probably represents a hotel from the Savoy province, France or Switzerland⁶.

Some photos from the collection were restored with empirical means. In the past, the classical and historical method of restoration was cyanide cleaning, but, from a chemical point of view, the image can also be washed away. Another destructive method utilized in 1960s-1980s was thiourea cleaning. The modern restoring process consists in electrochemical cleaning and laser cleaning⁷.

The empirical restorations of the daguerreotypes are the first of their kind in Romania.

We utilized the electrochemical cleaning process for a plate bearing the Christofle hallmark from 1850s.

The plate was empirically restored based on the literature available in this sense, using silver wire, a source of continuum current and a solution of ammonia. The contrast was improved during the restoration process. The plate was then placed in a frame and sealed under glass (*Figure 1*).

⁴ https://en.wikipedia.org/wiki/Ludwig_Angerer (accessed April 2021).

⁵ https://en.wikipedia.org/wiki/Gabriel_Veyre (accessed April 2021).

⁶ From the personal archive of Mihai Stănescu.

⁷ M.S Barger, A.P. Giri, W.B. White, T. Edmondson, "Cleaning daguerreotypes", in *Studies in Conservation*, 1986; 31(1): 15-28; Jennifer Jae Gutierrez; Debra Hess Norris; Getty Conservation Institute (Los Angeles, Calif.), *Issues in the conservation of photographs* (Los Angeles, Calif.: Getty Publications, 2010), 238-284.



Figure 1. Portrait of a man from 1850s, (third) plate bearing the Christoffle hallmark, before and after restoration, *Daguerreotype no. 16*.

The daguerreotype – The photography of a profession

Generally speaking, the daguerreotype portrays one person, a family, and finally, a group, which, generally, is a rare type of picture. In several cases, the profession of the person being photographed can be depicted in the photograph.

Most of the examples illustrated in the personal collection are as follows: military, priests, tradesmen and, of course, pharmacists and physicians⁸.

The Pharmacist

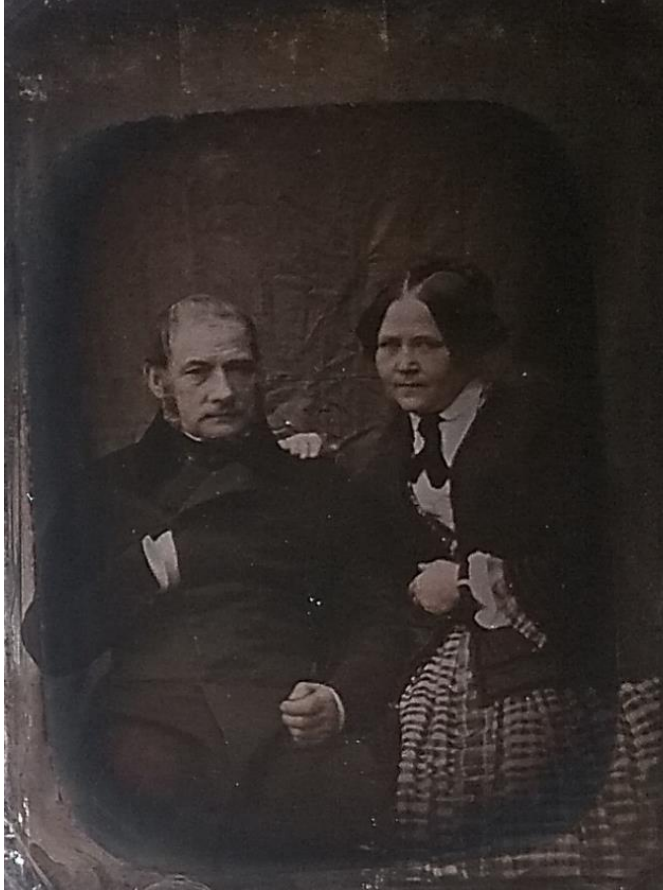
The collection includes four photos of a family named Gamas. A relative of this family had the profession of pharmacist. His name was Mr. Martin and he was called 'the former pharmacist', probably due to the fact that, at the time of the snapshot, he was retired (*figure 2*). He is depicted on the arm of his wife (daguerreotype no. 105).

The photos were acquired from an antique dealer from Rouen, France, who claimed that he had purchased them from the same town. Thus, we assumed that the family might have originated from Rouen or from the neighbouring areas.

Several members of the family are depicted: Johannes Graveur (Mr. Gamas), the grandfather Adrien, the patriarch (portrayed by prof.

⁸ Personal archive of Mihai Stănescu, daguerreotypes no. 40, 92, 19-21,105-108, 119-125 and 112.

Millet, photography professor) and (probably) the sister of Mr. Gamas (a picture from the studio from Rouen, Place des Carmes, 45). The mother of Mr. Gamas is portrayed near her granddaughter Marie Martin, the future madame Guillaume.



Monsieur Martin, Ancien
Pharmacien mon Beau frère
et ma Sœur

Figure 2. "Monsieur Martin, ancien pharmacien mon beau frère" (Mister Martin, former pharmacist, brother-in-law), circa 1849.

The unusual situation, in this case, consists in the fact that the names mentioned are not usually last names, but first names.

In the doctoral thesis of Alexandre Yves, a reference of Martin Joly, pharmacist on 26, rue des Bons Enfants was revealed⁹. With the support of Professor Yannick Marec, it can be asserted that we are unable to find a direct connection between the name of the pharmacist Martin and pharmacists bearing this first name in the region. In his research, we encountered several possibilities, but they do not match, which is why we cannot identify the exact name of the pharmacist¹⁰.

The Physicians

The first example from the portrait gallery of physicians is a daguerreotype purchased from a French auction house, depicting a boy and having a label on the back of the frame, *Portrait of the doctor Charles Abadie, child* (translation from French)-daguerreotype no. 112. It could represent the physician Jean Marie Charles Abadie (1842 -1932). He practiced as a physician at Hôtel-Dieu, in Paris. He also received the award Legion of Honour. A diagnostic sign of exophthalmia from hyperthyroidism bears his name, Abadie¹¹. The plate was washed with diluted ammonia solution, in order to wash the silver chloride deposits (*figure 3*).

Another example depicts a French Military physician, part of the collection of the Despaignol-Lafayette-Raichon family, acquired from another French auction house-daguerreotype no.119. The most important photo depicts the physician Gustave Adolphe Raichon (1808 Mijoux, Jura - 1874 Forbach, Moselle) and his wife Catherine Cécile Amélie, born Delinot (1814-1886) (*figure 4*).

Gustave Adolphe Raichon, who was awarded the *Légion d'honneur*, was a librarian in charge of the collections of the Military School from Strassbourg (1864). He was a major military physician, with campaigns in the Crimean War, Algeria, Italy.

⁹ Y. Alexandre, *Pharmacies et pharmaciens à Rouen au XIXe siècle* (Maîtrise d'Histoire, Université de Rouen, 1986), 220, 223.

¹⁰ Electronic correspondence with professor Yannick Marec between April-November 2019.

¹¹ https://en.wikipedia.org/wiki/Jean_Marie_Charles_Abadie (accessed April 2021).

Their daughter, Marie Marguerite Amélie Raichon (1849-1893), was married for the second time to Raoul Despaingol Lafayette (R.D.L.) (1842-1913)¹².

Despaingol Lafayette was a poet of the Pyrénées Mountains and was also a revolutionary poet. He was a Blanquist at the end of the Second Empire, a communard and then a radical-socialist. He corresponded with other writers, such as Hugo, Leconte de Lisle, Loti, Clovis Hugues... The first object from the auction was a photo of Victor Hugo, with a dedication to his friend, R.D.L.¹³



Figure 3. "Portrait du docteur Charles Abadie enfant" (Portrait of physician Charles Abadie, child), early 1850s.

2. The Autochromes

The *autochrome* process was invented by the Lumière brothers and their company made the process available to the public in 1907. An autochrome is a colour photo on a transparent glass plate. The colours of the original picture are made of a mosaic of microscopic grains of potato starch granules (15 μm in diameter) dyed in violet, green or orange. The black-and-white photographic image is found under the mosaic of potato starch grains. The elements selectively block the transmission of light through certain elements. The colours are re-created through the additive synthesis of coloured light, similarly to the way in which monitors and screens produce the colours¹⁴.

¹² <https://gw.geneanet.org/daniellelepage?lang=en&iz=429&p=raoul&n=despaingol+lafayette> (accessed April 2021).

¹³ <https://maitron.fr/spip.php?article174916> (accessed April 2021).

¹⁴ Lavedrine, Gandolfo, 1.



Figure 4. Portrait of Gustave Adolphe Raichon and his wife, late 1840s, early 1850s.

One other important part of the collection contains autochromes, especially of French origin. In general, they depict outdoor scenes, the portraits are scarcer.

The most important one which belongs to the medical domain is a stereo plate depicting a man with leprosy. The picture can be dated to the beginning of the 20th century.

The picture described above is part of a lot (purchased in 2017 from France) from Colonial France (Morocco): five positive stereoscopic plates – photographs of executions by shooting, three stereoscopic autochromes, two with annotations ‘Muslim college (probably from Fès)’ and eight stereoscopic positive plates with scenes and monuments from Meknès (some examples can be seen in *figure 5*).

The pictures were preserved in a wooden box and some of the pictures were sold separately. Thus, the collection is incomplete. The pictures received from the seller prove the fact that the box contained other medical pictures. He did not possess any information as far as the origin of the photographer is concerned.



Figure 5. Autochromes from the box - Left side, man with leprosy, right side, the fountain from the Muslim college (probably from Fès) - with no inventory number

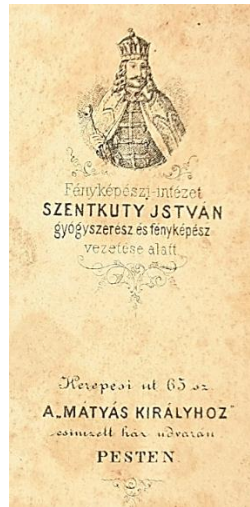


Figure 6. The back of carte-de-visite picture from István Szentkuty, photograph from a Romanian Antique shop, bought in 2020.

3. Pharmacist and photographers

As we have previously shown, the pharmacists were interested in photography, but, in general, their profession was rarely mentioned on the back of the cardboard, which contained the name of the artist. Some of the photographers were painters and this detail was also printed on the cardboard.

An interesting example is that of the pharmacist István Szentkuty, who owned a pharmacy in Debrecen. Using an online archive as a source of research, we discovered that in 1854 he was seeking a trainee

pharmacist for his pharmacy. The journal quoted is *Vasárnapi Újság*, i. e., the issue from 23 July 1854¹⁵.

He later became an independent photographer in Pest (later Budapest) starting 1864. On the back of the *carte-de-visite* (cardboard) the photographer is also called a pharmacist.

4. Snapshots from the pharmacy laboratory

In conclusion, we must also mention several pictures representing the pharmacists preparing medicine in Romanian pharmacies, during the interwar and the postbellum periods. The pictures from the Interwar period were purchased from an antique dealer in the autumn of 2020. They probably originated from a pharmacy in Bucharest. For the last picture, taken during the post-war period, acquired in the same year from another antique dealer, we do not possess any details with respect to its origin.

Before industrialization commenced, the drugs were prepared with the utmost care by the pharmacists in the pharmacy laboratories. This activity was characteristic for the pharmacists, but unfortunately, nowadays, this kind of activity is quite rare. But, in some cases, there are traditional pharmacies where drugs are still prepared using the same method as in the olden days.



Figure 6. Snapshots from pharmacy- left and center - interwar period and right- postwar period.

¹⁵ <http://epa.oszk.hu/00000/00030/00021/datum00573/cim100585/cim300590.htm> (accessed April 2021).

Concluding remarks

The presented work can be considered to be a brief presentation of the most important pictures from the author's collection and a chronological and regional incursion in the history of pharmacy and medicine. Some images can be common in some collections, but the historic value of the images can be important to Romania.

The images resulted from the electrocleaning of daguerreotypes are presented in the present paper, for the first time in Romania.

Finding images of physicians and pharmacists from 1850s in Romania can be quite difficult, but it can be common in France. The story of the portrayed persons can be in some cases difficult to discover, because research conducted in this sense in foreign archives is compulsory, but with some help, certain information can be discovered.

From daguerreotype to autochrome to digital pictures, the archive images will continue to amaze the researchers of this field in particular, because they are able to better reconstruct the perspective of an era.