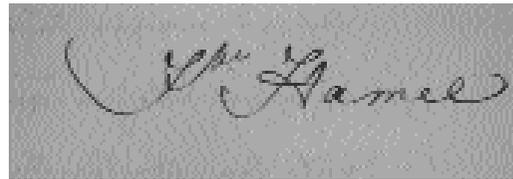
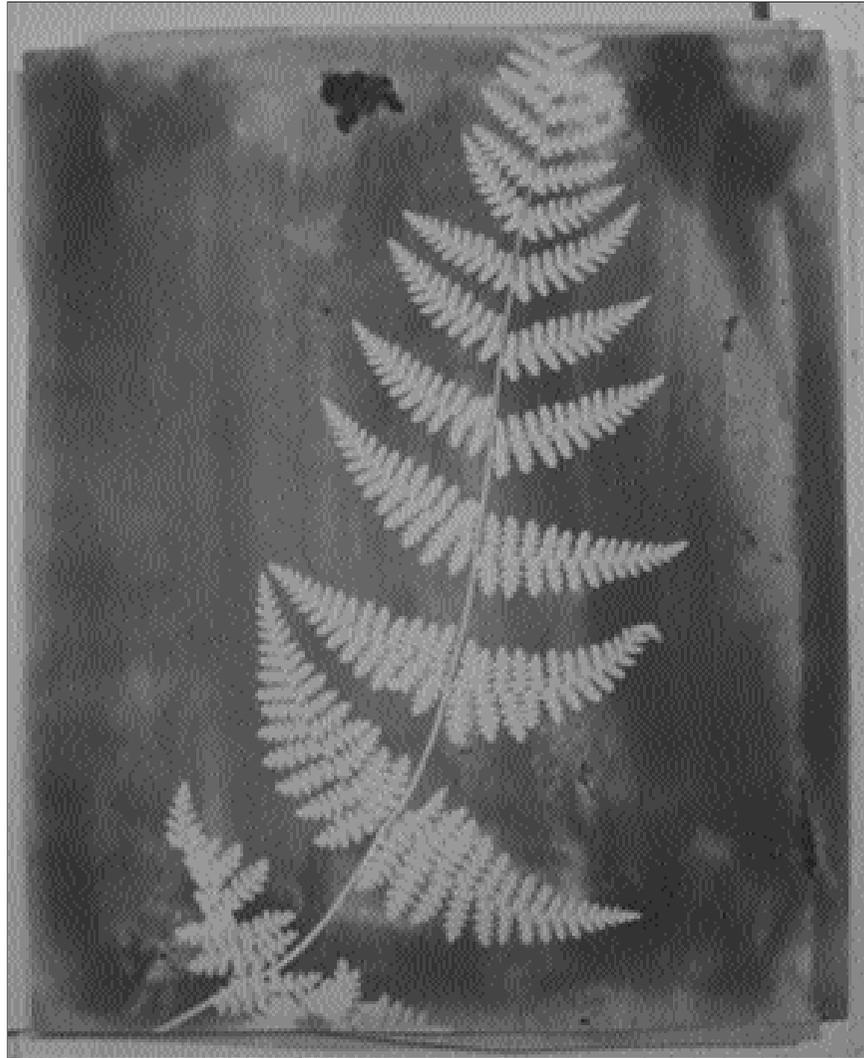


NIÉPCE, DAGUERRE OR TALBOT ?



VENTI - 3



W.H.F. Talbot, South American Fern, photogenic drawing, 1839, Hamel collection.

NIÉPCE, DAGUERRE OR TALBOT ?

THE QUEST OF JOSEPH HAMEL TO FIND THE REAL
INVENTOR OF PHOTOGRAPHY

BY SERGE PLANTUREUX

ENGLISH TRANSLATION
BY SUSY FIRTH



VENTI-3

2004

M. Arago a rendu compte à l'Académie des Sciences, dans la séance d'aujourd'hui, de la belle découverte de M. Daguerre dont le monde, les artistes et les savans eux-mêmes s'entretiennent avec intérêt depuis quelque temps; cette découverte a été annoncée, dit M. Arago, dans des termes inexacts et que l'auteur ne peut accepter; il lui paraît donc convenable de donner à l'Académie des détails précis sur cette merveilleuse invention.

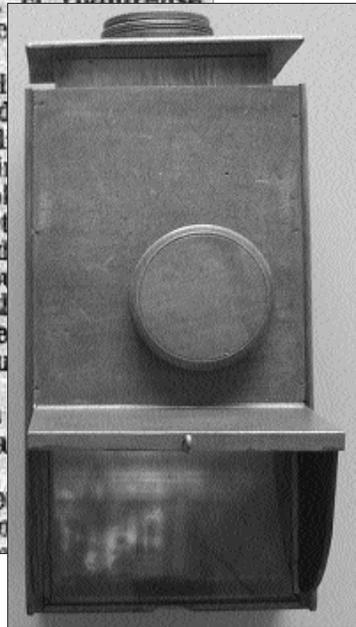
Tout le monde connaît les effets de la chambre noire et la netteté avec laquelle les objets extérieurs viennent se peindre en miniature sur le tableau au moyen d'une lentille. Eh bien! on ne peut pas donner une idée plus juste de la découverte de M. Daguerre, qu'en disant qu'il est parvenu à fixer sur le papier ce dessin si vrai, cette représentation si fidèle des objets de la nature ou des arts, avec toute la dégradation des teintes, la délicatesse des lignes et la rigoureuse exactitude des formes, de la perspective et de tous les tons de la lumière.

Quelle que soit l'étendue du tableau, il ne reproduit que dix minutes ou un quart de l'éclat du jour; la lumière étant elle-même la merveilleuse gravure, elle agit plus ou moins selon son intensité; c'est ainsi que M. Daguerre, place des Saints-Pères, a pu fixer avec tous ses détails la galerie du Louvre, de même que du pont de la Concorde il a dessiné Notre-Dame; aucun objet, aucune nature et des choses n'échappent à ce procédé qui reproduit avec sa fraîcheur, de même que la lumière du jour et la teinte sombre du soir ou d'un temps de pluie.

Dans cette gravure singulière, les couleurs sont fixées par la nuance des ombres et par une dégradation qui est comme dans l'aquatinta.

Maintenant quel est donc l'ingénieux moyen employé par M. Daguerre pour réaliser cette espèce de reproduction?

Article
from Le
Moniteur
dated 9th
January
1839.



Model of camera obscura used by both Talbot and Daguerre, circa 1830.

INTRODUCTION

Photography was about to make its appearance on the world's stage, although it did not yet bear the name of photography.

For some time now, the public had been closely following the work of research chemists and opticians, who in various countries had been trying to find a simple but effective method of reproducing faces and landscapes. The shop windows of the Palais-Royal put the latest drawing machines on display, the mysterious *camera obscura* and the elegant *camera lucida* with its long articulated arm. At the beginning of January 1839, the French newspapers announced that the eagerly awaited new invention was finally ready, and was of such a particular nature that a grand ceremony was going to be held in which scholars, artists and the Nation's leaders would come together to celebrate the universal significance of the new invention. There would be no favouritism towards captains of industry, no legal or administrative barriers to slow down production, and this marvel, which would come to be called photography would soon be given, in the name of France to the whole of Humanity.

To be precise, the government had decided in a spirit of longstanding cordial rivalry, to give the secret to the whole world, except for England, a country very pernickety about patents, and sceptical about the ostensible paternity of the invention.

The French inventors would of course be celebrated and decorated for this generosity.

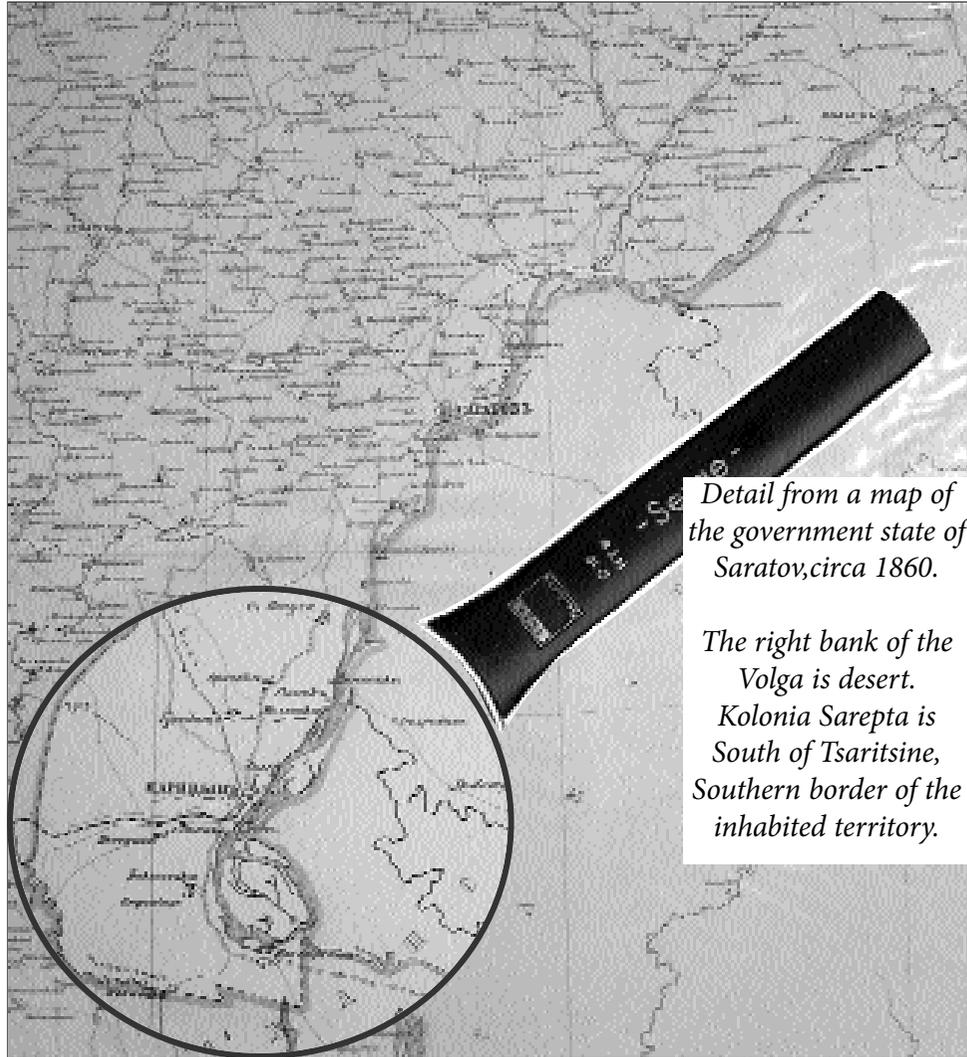
Rarely has a gift given so much pleasure and for so long. Perhaps the quickest to appreciate it was a certain Joseph Hamel. He methodically gathered together the main examples of work and the documents that enable us today to understand the origins of the invention of photography.

This remarkable explorer would probably have been described as a pirate in the previous century or as an industrial spy in the following one. He came from the ends of the earth, and this is the tale of his strange adventure.

Serge Plantureux



William Henry Fox Talbot, Feather, photogenic drawing, avril 1839, coll. Hamel.



*Detail from a map of
the government state of
Saratov, circa 1860.*

*The right bank of the
Volga is desert.
Kolonia Sarepta is
South of Tsaritsine,
Southern border of the
inhabited territory.*

I. THE STEPPES OF ASTRAKHAN

Sarepta can no longer be found on any map : its name has been erased from living memory; it was there that Joseph Hamel was born in 1788.

Several years earlier, in 1770, 8 hundred thousand Buriat nomads, wary of the Russian Empire which was gradually creeping eastwards, had left the Steppes bordering the Volga for a long and arduous exodus which would take them all the way to China. To fill the resulting human void, the Empress Catherine II invited a great many German colonists to come and settle on the land — among them, members of the pacifist group who were the disciples of Mennon. She fortified the two ancient Russian border towns of Saratov and Tsaritsine, and at the southernmost tip of the province, at 48°31 latitude North and 43°34 East, created a new colony to which she gave the name *Kolonia Sarepta*. The October revolution wiped out that name as it did so many others, and ever since 1920, the little railway station has been called *Krasnya Armya* (Red Army). Geographers have agreed to trace the delicate border between Europe and Asia close by.

Whilst faroff Europe was shaken by the wave of revolution that came from France, Joseph grew up on the banks of the great river Volga, facing that deserted and mysterious shore from where so many dangers had come in times past.

Joseph's father was a *Polis-Meister* as the Russians say, the equivalent of a police constable. At home Joseph spoke German and on Sundays, he joined in with the community's austere church service. In the South of the government state of Saratov, Lutheran temples rubbed shoulders with Buddhist pagodas, both of which would be photographed a century later by Maxime Dmitriev.

The German colonists had set up a school in their church community. The police constable's son proved to have a lively mind, and his schoolmasters agreed that it would be a good idea to write to the faraway Russian capital. They suggested that the young boy should pursue his studies there. At this time there were very few establishments for study in Holy Russia, and those that did exist were extremely hard to get into, their access reserved for the sons of aristocrats or wealthy heirs; the newly-founded Imperial Military Surgeons' Institute of Saint Petersburg was the only one that accepted children who were not born of upperclass stock.



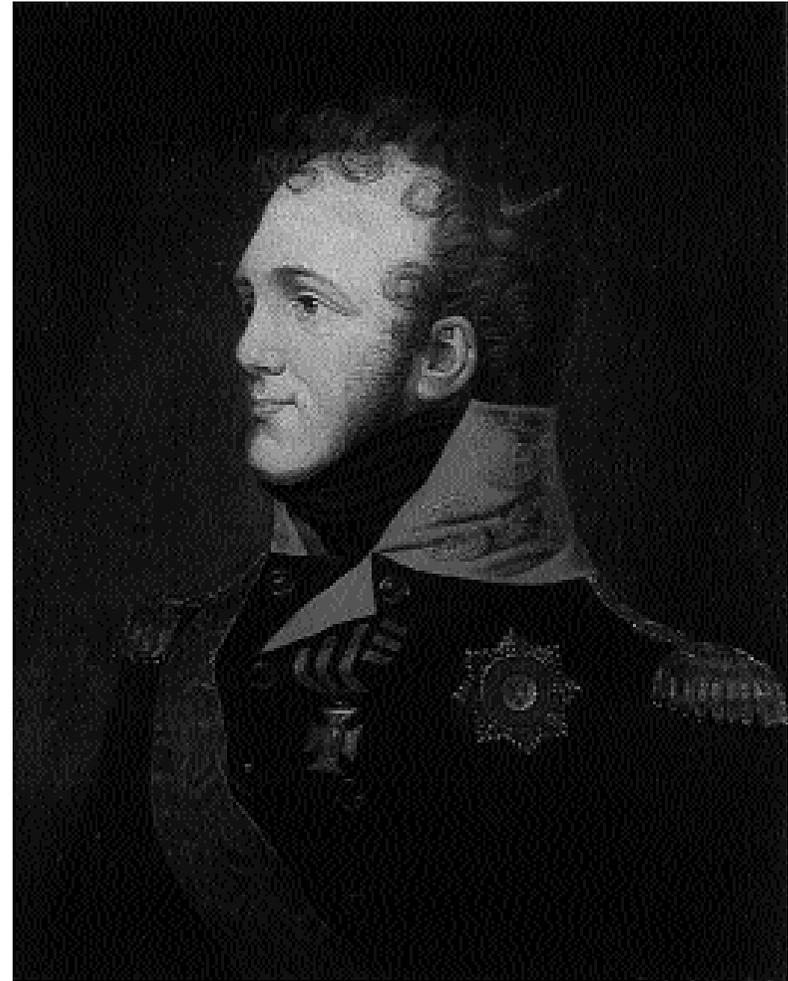
Maxime Dmitriev, Banks of the Volga, albumenized print, 1894 (private collection).

II. SAINT-PETERSBURG

Joseph Hamel did not disappoint his instructors and threw himself into his new studies with passion. In particular, he tried to reproduce the latest experiments taught by Gay-Lussac and the French scholars in the Parisian schools created by the Revolution ; he came up with a clever and inexpensive way of manufacturing electrical machines for the study of galvanism.

This particular initiative prompted the first meeting between the young scholar and the Tsar, who was at that time only 33 years of age. In accordance with the tradition of the times, Alexander 1st presented him on 3rd June 1811 with an imperial reward of great distinction : a heavy gold watch.

On 13th April 1813, Joseph received his title of Doctor ; he had completed his studies and demonstrated his interest in the common good. Soon afterwards, Alexander would triumph over Napoleon.



Tsar Alexander 1st. Painted portrait, anonymous (Nureyev sale, New York. Private collection, Zurich).

The Tsar no longer had any doubt about the outcome of the European war, but was very aware of the amazing progress that had been made in technology during the previous 20 years of conflict by its principle belligerents: France and England.

Without waiting for the outcome of the conflict, Kozodavlev, Russian minister of the Interior, suggested sending an agent on a mission to their British allies.

The fortunate person chosen would have to possess the necessary knowledge and capacities for establishing lasting contacts in the English scientific community.

The name of the young scholar was put forward and immediately accepted. As Joseph had just completed his studies, the Tsar entrusted him with an investigation into the educational systems of the West.

And so it was that Joseph Hamel set off on his first mission on 26th May 1813, armed with the title of Corresponding Member of the Science Academy of Saint Petersburg, with its “Open Sesame” powers. He embellished his name with a distinguished particle; to the English, he would be known as Joseph Von Hamel, the Russian doctor.



Portrait of Joseph Hamel as Russian Academy Member, engrav. by A. Teichel c. 1858.

III. FIRST MISSIONS

From this first exotic stay in Great Britain — London was further from Sarepta than Peking — Joseph would retain a precious knowledge of the country which would make of him the guide and organiser of future journeys by the Russian Grand Dukes. Received by the Royal Society, he became friends with the most avant-garde scholars and teachers, who were often involved in the Quaker movement. Joseph Hamel was to later write a thesis in support of the struggle that Andrew Bell and Joseph Lancaster have been leading since 1811 to set up a mutual teaching system, a controversy that would eventually lead to the creation of British state schools.

In 1815, the war was over, and the Russians occupied Paris. They imported the Russian term *Bistrot* (“*Quick, serve us drinks !*”), and lost their heads and their fortunes at 113, Palais Royal. Joseph was sent over to inspect the schools and factories of defeated France and its short-lived imperial provinces : Holland, Germany and Italy. Monsieur de Hamel was received in the various Academies of Paris, Vienna, Florence and Ancona.

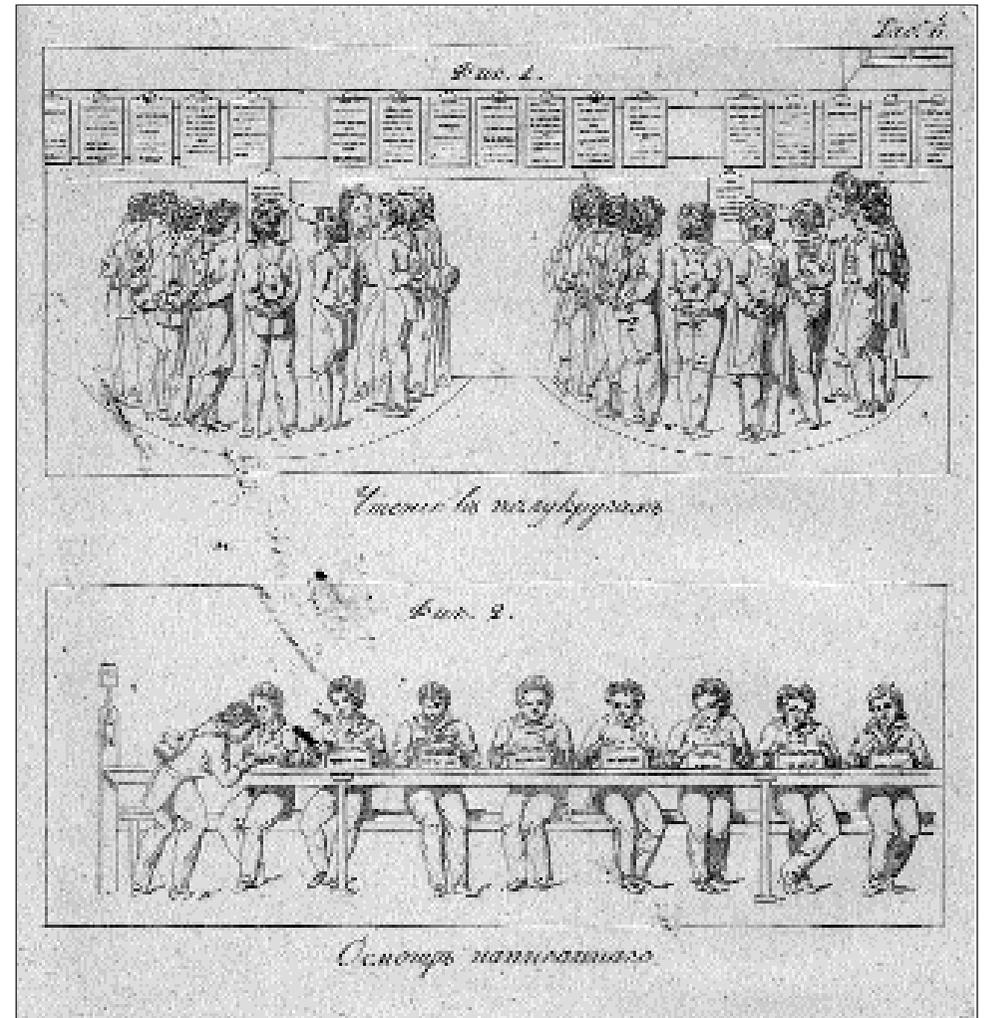


Plate from Hamel's work on mutual teaching, Saint-Petersburg, 1820.

Like Jean Potocki, he published a book in every town he stayed in. His first book was devoted to the enthralling question of mutual learning, a schooling system in which children of poor families received tuition free of charge in exchange for their services teaching the younger pupils.

Joseph initially published this first book in German : *Der Gegenseitige Unterricht* (Paris, Didot, 1818), and gave a copy to Wilhelm 1st, King of Holland, who would try and apply these new ideas in his own country. In that same year, Hamel published his book in French, again in Paris, then in Italian in Florence in 1819 and in Ancona the year after, and finally in Russian in Saint Petersburg in 1820 in the shape of a handsome volume of 352 pages illustrated with 12 lithographs, *Opisanie Sposova Vzaimnago Obucheniya*, which he presented to the Tsar. His second publication was devoted to the observations made during his ascent of the Mont Blanc in the summer of 1820 : Joseph, a pioneer of mountaineering, was the last to climb its most dangerous slope since the fatal fall of three of his guides gave rise to a whole set of safety regulations concerning mountain paths and the creation of a mountain guide association. The account of his ascents was published in French in Geneva in 1820, in German in Basel, then in Vienna the following year, and finally in English in London in 1822.

Subsequent to this publication, he was considered by the English to be the first author to describe the unpleasant effects of high altitude on the physiology of climbers. But underneath the mountaineer was the Tsar's secret agent who had forgotten no aspect of his mission, and on his return to Russia after his first eventful journey lasting several years, he was assigned an important technological inspection of the Russian arms factories on 1st September 1821.

In his 356-page report published in Moscow by Semen in 1826, *Opisanie Tul'skogo Oruzheinogo Zavoda v istericheskoi i tekhnicheskoi otnoshenii*, he proposed 122 technical improvements. He advocated that the work organisation methods in use at the Imperial Factory of Tula, where interchangeable parts were used in different gun models, be standardized and adopted throughout Russia.

In the same report he included chapters on the particular statutes and rights of the workers in this establishment, broaching two subjects little studied up until then : the optimisation of productivity and work legislation. The qualities of this piece of work surprised not only his contemporaries, but continue to surprise today's historians. Recently, in 1983, an English translation was brought out in New Delhi.

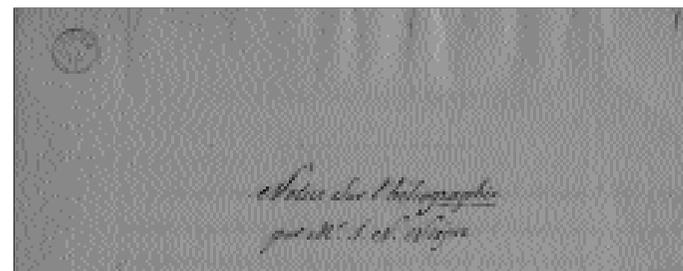
In Saint Petersburg, most of the members of the newly founded Academy were German, Dutch, French or Polish, all serving under the Tsar. In the corridors, German was the most common language, whereas the Academy sessions were mainly conducted in French, the language chosen by scholars to create specialist vocabulary and describe new inventions. Hamel would summarise the importance of his missions in a famous report read in French on 29th December 1829 to the Science Academy of Saint Petersburg : *Sur la nécessité de répandre en Russie les connaissances technologiques*.

Back at the Petersburg headquarters, the Academy members would scan the foreign newspapers for discoveries worth noting, and transmit brief messages to Hamel the traveller. Inversely, the information and machines collected by Hamel were sent on Russian cargo ships to the quayside of the Science Academy, at the tip of Vassilievsky Island. The laboratory attendants opened the chests, tested the machines and exhibited the results of experiments at Academy sessions.

So Joseph Hamel, abandoning the idea of founding a family, would spend more than half his time on missions abroad. The Russian doctor's interest would henceforth be taken up by the widest possible range of subjects.

Hamel published a tract about the cochineal of Mount Ararat from which a precious carmine could be extracted : *Über Cochenille am Ararat und über Wurzel-Cochenille im allgemeinen*, (1833), three ornithological essays on Dodos, a species already completely extinct: *Sur le genre d'oiseau nommé Dinornis* (1844), *Über Dinornis und Didus, zwei ausgestorbene Vogelgattungen* (1845), *Sur un crâne de Dodo du musée de Copenhague* (1846).

We can also be grateful to him for the description of different methods of electrolysis : *Colossale magneto-electrische Maschine zum Versilbern und Vergolden*, reports on the best products featured in the Universal Exhibitions, a technical notice about the singing wire:the telegraph, several accounts of the adventures of the first English explorers of the Great North...



Nicéphore Niépce
manuscript, 1829,
Hamel Collection.

Indeed, of all his missions, that of the year 1839 can be qualified as one of his greatest successes.

IV. LONDON

At the beginning of 1839, Joseph was sitting on a bench, attending an ordinary session of the Saint Petersburg Academy. Two Academy members, Karl-Ernst von Baer and Fiodor (Friedrich) Brandt, drew attention to an article which had appeared in the *Moniteur* : François Arago announcing the imminent revelation of the prodigious invention of a certain Mandé Daguerre. Joseph Hamel was to leave soon for Western Europe, stopping off first in London where his correspondants were staying.

On his arrival, Hamel found the scientific community in a state of shock. The famous Faraday had just broken the news from Paris : Arago was proudly presenting to the world an invention that M. Daguerre could hardly claim credit for. A distinguished Hellenist, Henry Fox Talbot, brought to notice that he had been working for quite some time, and with some degree of success, on a similar invention. Also, a respected research chemist of German origin living ten miles from London, near Kew Gardens, Mr. Francis Bauer, recalled that some ten years earlier, he had received the visit of a certain Nicéphore Niépce.

A huge wave of emotion had been unleashed in Paris on 6th January 1839 by the indiscretion of a journalist. The age-old problem of how to fix the fleeting images created by the camera obscura that reasonable men of learning had given up on, had just been solved by a theatre director, an expert in trick staging and optical illusions, who has his entrées to the Court of King Louis-Philippe. On the following day, the académicien François Arago made known his wholehearted support and the hopes he placed in Mr. Daguerre's new method.

Meanwhile, the French press started tongues wagging in speculation on the fortune Daguerre would make out of it, thus provoking the envy of the scientific community. In order to counter the claims to priority of invention that had made their way over the Channel, Arago slightly altered his initial declaration on 4th February 1839, and mentioned before the Science Academy the possible importance of the part played in the invention by the late and completely unknown Mr. Nicéphore Niépce from Burgundy. Then a week later, in order to better diminish its importance, he mentioned the works of William Henry Fox Talbot, from London. Feeling his French scientific colleague Arago had only a partial version, Francis Bauer decided to publish a detailed account of Nicéphore Niépce's stay in London in 1827 (*London Literary Gazette*, Sat. 2nd March 1839).

Along came a translation of the article about the new method that the French inventor had baptised *Héliographie*, thus casting doubts on Daguerre's claim to fame. Francis Bauer went on to declare without hesitation :

"... ever since 9th January 1829, I never heard any more from M.Niépce, or about his heliography, right up until 12th January 1839, when my attention was drawn to an article in the Literary Gazette, which had previously been published in the Gazette de France on 6th January 1839, and signed Gaucherant, in which I discovered to my great surprise that Mr. Daguerre who was famous for his Diorama, not only claimed the credit for being the first to discover this most interesting and important new art-form, but actually wanted to give it his own name! I certainly remember that Mr. Daguerre had some connection with M. Niépce, but I had never been under the impression that he had taken an active part in Mr. Niépce's research other than by encouraging him to persevere in his experiments... The specimens brought by Mr. Niépce and exhibited in England in 1827 (several of which are still in my possession), were just as perfect as Mr. Daguerre's products, as described in the French papers in 1839. (...) Although (since) the interruption in our correspondance in 1829, M. Daguerre may well have made improvements; although, more importantly, if he has legally bought the secret from Mr. Niépce, he must be making the biggest profit



*La Sainte Famille, reproduction of an engraving on silver-plated copper.
(Private collection, Paris, undergoing analysis.*

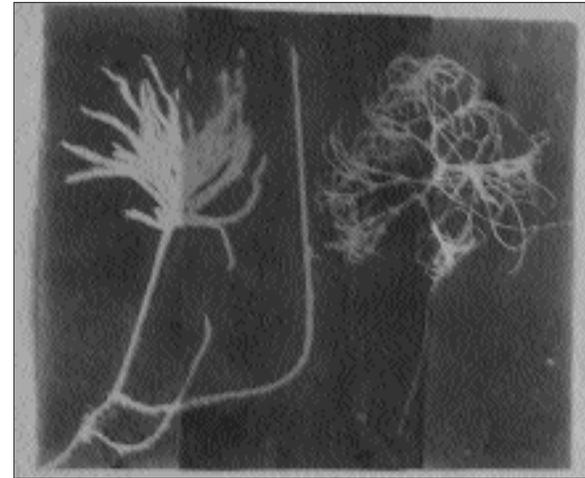
imaginable from its sale, the invention of heliography nonetheless has to be accredited to my highly esteemed friend, Nicéphore Niépce !”.

One week later, but eleven years too late, Bauer granted one of Niépce's wishes by exhibiting four heliographic plates at the Royal Society presided by the Marquis of Northampton. On 7th March 1839, Fox Talbot wrote to Bauer and offered to show him the fruits of his labours, that he called photogenic drawings. Finally, on 17th April 1839, Francis Bauer received a letter from Isidore, Niépce's son, thus reestablishing a correspondance with the family that had been interrupted since January 1829.

It was at this juncture that Joseph met the English participants or witnesses of the birth of photography.

Elisabeth Feilding, mother and enthusiastic muse of William Henry Fox Talbot, introduced the Russian Doctor to her son, on April the 30th. She gave him all the precious photogenic drawings she had in her possession, in order that he might *“show them to the Tsarévitch”*. After several meetings in May 1839 Hamel convinced Talbot to sell him the secret of his method. In return, Hamel had to propose some sort of compensation, *“even if not ruinous”* as he explained in his report of 4th May 1839.

He sent a set of 15 of Talbot's first photogenic drawings, a few imprints of ferns and leaves, as well as *“some impressions on paper achieved with the help of the camera obscura”* dated overleaf : *“April 1839”*. This first parcel also contained the ingredients which would allow the Deputy Academy Member, Fritsche to carry out the first critical tests of Talbot's method.



First Russian attempt at photography, carried out in May 1839 (old style).

On 23rd May 1839 (old style calendar), Julius Fritsche presented the first two photogenic drawings in Russian history, two impressions of seaweed and leaves, Fritsche (1802-1871), a distinguished chemist, even went as far as to describe his own method, adapted from Talbot's, in that he replaced hyposulphate with ammoniac.

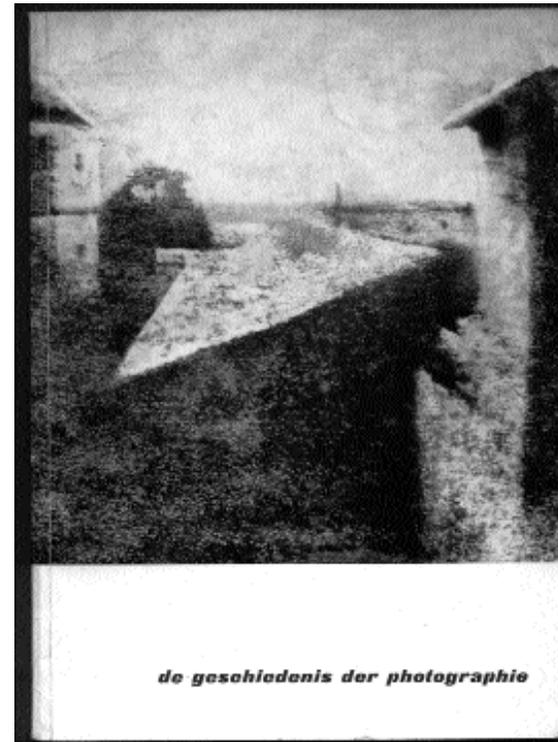
Hamel went on to send two other parcels from London on 15th and 23rd June 1839, containing four more Talbotypes, one of which was a remarkable view of the gothic residence of Mr. Talbot, Lacock Abbey, *"the first house in England to have drawn itself with only the help of light"*.

Joseh Hamel mentioned in his letters several encounters in May in London. He pointed out that Francis Bauer still had one of Niépce's heliographies in his possession.

What remains of the Hamel collection today contains most of Niépce's letters to Bauer in 1828 and 1829. However, Hamel did not manage to persuade the German scholar to let him have the pewter plate.

Francis Bauer who was very old by this time, passed away a few months later. Those of Niépce's manuscripts still in his possession and *Point de vue du Gras* were put on sale by Christies on 24th November 1841 in the first ever photography auction (catalogue, n°188 and sq). In those days, absentee bidding was not yet possible, so in Joseph Hamel's absence, it was a neighbour of Bauer's who worked in Kew, Robert Brown, Fellow of the Royal Society and curator of the Herbarium, who bought all the lots, thus becoming the world's second serious photograph collector.

Robert Brown's little collection, patiently tracked down by Mr. Gersheim, would be handed over by the latter in the 1950's to a University Museum in the town of Austin, Texas, which had aspirations at the time of becoming a great cultural capital.



Le Point de vue du Gras is so difficult to distinguish and to print that since 1952, it is agreed that the reproduction obtained at the time by M. Gersheim is preferable. In 2003 was a new attempt of imaging the first photograph.

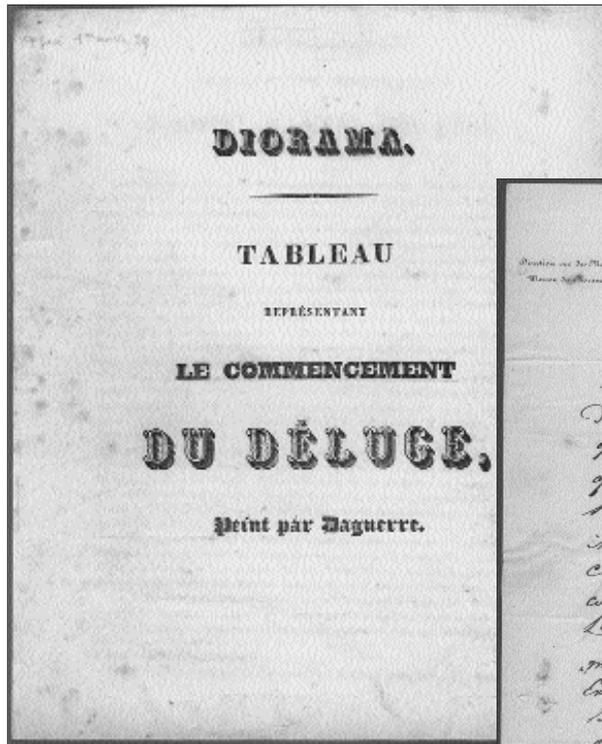
V. PARIS

Towards the end of June 1839, the Russian scholar crossed the Channel. His English friends had warned him about the entrepreneur's character. For Daguerre had enterprising genius, the flair of a tycoon, a shrewd business sense, and a solid experience in international dealings. In 1839, Daguerre was famous and respected by the whole of Europe as one of the inventors of the *Diorama* on the Boulevard du Temple.

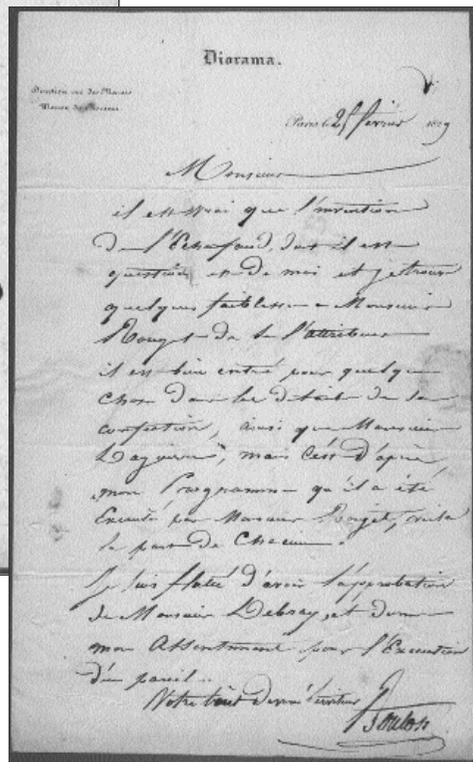
Daguerre had a humble start in life, received no scientific education and was apprenticed at the age of thirteen. He soon made his way to Paris, and at sixteen, while apprenticed to Degotti at the *Menus Plaisirs*, the theatrical outfitters, he could observe the desires and reactions of the punters to the gilded costumes and imposing trompe-l'œil scenery. He also attended the public lessons of the physician Jules-Alexandre-César Charles, (1746-1823) who put on a show of Chinese silhouettes — fleeting impressions in silver nitrate — at the Louvre. Daguerre, who soon had his own business, brought his immense fairytale-like tableaux to life by using animals or actors. Sometimes, Daguerre participated incognito, in the role of a dancer or an acrobat.



Portrait de Daguerre en 1844, d'après un daguerréotype du musée Carnavalet.



Visitors to the Diorama were given a programme, consisting of a single folded page.



The inventor's lot is a difficult one, testifies Bouton, associate of the Diorama in this letter dated 25 February 1829: "It is true that the invention of the scaffold is mine, and I find M. Rouget rather weak-minded to appropriate it for himself; he may have developed its finer workings just as Daguerre did, but it was based on my original design ...".

In order to set up his own business, Daguerre had looked around for associates, building up his paper and canvas empire by dint of contracts that tended to trip up the unsuspecting. Bouton, a man several years his senior who helped him found the Diorama in 1822, provided a constant stream of ideas that the other was better at turning to account, finally withdrawing in 1830. Daguerre opened numerous branches across the Channel, in London, Liverpool, Manchester, Dublin and Edinburgh. Daguerre was swift to gauge the worth of good ideas, and had some useful contacts at his disposal. The opticians Vincent and Charles Chevalier kept him informed about the solitary inventors who came in to buy their glasses. One sad pale young man who seemed as if he might well have managed to fix images on paper did not wish to reveal his name and, mistrustful, never came back. But in January 1826, a talkative provincial came into the opticians' to buy a meniscus prism for his inventor cousin who knew how to fix landscapes onto pewter, and he even went as far as to show a copy of *La Jeune Fille à la Quenouille*. Daguerre soon managed to procure the address of Joseph Nicéphore Niépce. He wrote to him without delay. Niépce was to mistrust Daguerre and put up resistance for more than a year until he received from him a smoke drawing from him that he took to be a photograph. The wily Daguerre obtained in exchange one of Niépce's heliographies reproducing an engraving of *La Sainte Famille*.

At the end of the summer of 1827, on his way to England with his wife Agnès, Niépce took advantage of a stop in Paris—unexpectedly protracted due to the loss of his passport in his hotel room toilets — to meet Daguerre. And on that first day of September, Niépce was dazzled by the effects of the *Diorama*.

The trip to London turned out to be disastrous. Nicéphore found his older brother ill, half mad, and he realised that Claude had been deceiving him and ruining him for the last several years. In addition to which the Royal Society was going through an exceptionally bad crisis, and in spite of Bauer's support, Nicéphore did not manage to exploit his invention.

On his return to Paris in February 1828, panicked in the face of financial disaster and filled with bitterness, he seemed to find in Daguerre the ideal interlocutor. Completely at ease in his role of saviour, Daguerre accepted a partnership with Niépce, and then got rid of the former partner, the engraver Augustin François Lemaître, in a firm but gentle way. When questioned about Daguerre by Niépce, the engraver had wisely recommended however to "*break with him*". Not to be put off, Daguerre used cunning to obtain the exclusive partnership he craved. Once the contract had been signed, on 14th December 1829, he took an active and enthusiastic part in Niépce's work.

And so it was that he received a complete initiation. Niépce and his fervent disciple shut themselves away in the attic of the master's house in Saint-Loup de Varennes, on the side that received the most light. The collaboration of the two inventors was fruitful, and the glass and metal methods were improved at each of the two to three week sessions that Daguerre attended between 1829 and 1833. More significantly, during the last session, they made a most amazing discovery together, completely by chance — le physotype — but that's another story ...

The unexpected death of Nicéphore Niépce, on 5th July 1833, following the loss of his very last real estate property, brought about a complete transformation in Daguerre, who, deprived henceforth of his teacher, redoubled his efforts to keep abreast of developments in the worlds of chemistry and optics. He converted the attic of his Paris home into a laboratory, a latterday Tour Saint-Jacques, and discovered for himself the anguish of the solitary alchemist in his quest for the philosopher's stone, cursing equally the curiosity and the indifference of passers by. He had to renew the contract with the inventor's son. They did not see eye to eye. Isidore, who had made a good marriage, was somewhat idle and distant. He took on his father's huge debt in order to preserve his claim to the invention. Daguerre deemed that heir to be "*incapable and incompetent*".

In effect, on 13th June 1837, in dire financial straits due to his mismanagement, Isidore reluctantly handed over to Daguerre the financial exploitation of the invention that he could now name as he pleased. Using a practise very common at the time, Daguerre first proposed a sale by subscription, initially planned for the very short duration of one month, between 15th March and 15th April 1838. He aimed for 200 individual subscribers at 1.000 francs a piece to each have a share in his philosopher's stone, but actually found none ; the Parisian financiers "*couldn't see what they stood to gain from it*".

Daguerre then found 24 million Frenchmen who were each going to invest half a centime. From the moment he met Arago on 2nd January 1839, Daguerre could foresee how things would turn out. Ever careful, he wrote that very day to Isidore Niépce, to let him know what was about to happen, and above all to make it clear that he would rather manoeuvre on his own.

But time was short, publicity was inspiring new vocations, and soon, with the help of a few hints dropped by Arago or Talbot, gifted rivals tried their hands at the invention with success. On 20th February, a certain Hippolyte Bayard proposed to show the Academy his images on paper. Misfortune sometimes occurs just at the right moment.

On 8th March 1839 at 1 o'clock in the afternoon, a violent fire broke out in the *Diorama*. The flames were spectacular and reached the neighbouring houses. The chief fireman noted in his report that Daguerre, who had rushed to the scene, ordered him to aim the hoses at his house at 5, rue des Marais in order to save his laboratory rather than the main premises with its huge backdrops; Daguerre had turned the page of the *Diorama* in order to devote himself to his new activity: organising the promotion of "his" new invention.

It was then that his detractors pointed out a happy consequence of the distressing fire : negotiations over the invention were speeded up, and the *Diorama* being such a cruel loss, the government agreed to compensate Daguerre. Scholars who had expressed the wish to visit his humble laboratory or consult his notes found that this was now impossible. Tireless in his defense of Daguerre, Arago put an end to the rumours and announced that "*a portfolio containing the description of Mr. Daguerre's methods that had been lost subsequent to the fire in the Diorama, has been recovered*". Daguerre had entrusted five favorable papers from Niépce (three contracts and two letters) to Arago, who had kept them in his private library. In 1891, they were sold by the Frankfurt bookdealer Josef Baer and bought in second hand by his colleague Frederking for Dr. Pedro Arata.

On his arrival in Paris, Joseph Hamel found himself in an atmosphere of intense excitement. At its center was a showman who gave away no actual documentation, a crafty salesman who had preserved the rarity of his product, and who had already gotten the French government to compete with emissaries from America, England, Russia, Austria and Bavaria. On the day when the fire broke out at the Diorama, Daguerre had a meeting with his American colleague Samuel Morse, who was passing through Paris to patent “his” telegraph invention, inspired by Charles Wheatstone’s work. Daguerre also received propositions from Sir Mac Dougall-Brisbane and Sir John Herschel, who dreamed of having pictures taken aboard



A. von Ettigshausen,
ph. Petzval, Vienna,
Technical Museum.

two frigates, *The Erebus* and *The Terror*, during the expedition to the Antarctic.

On 15th July, Daguerre showed his pictures to Antal Apponye and Andreas von Ettigshausen (1796-1878), who will, back in Vienna, organize the *Fürstenhof Circle*, with his young assistants in the University, Joseph Petzval and Anton Martin.



Sir John Herschel.

But Daguerre knew how to raise the stakes while waiting to hear whether or not he had obtained his annuity from the government. Luckily for Daguerre, not only did Arago defend him furiously from the scientists and from sceptics on all sides, but, as a Member of Parliament, he managed to swing the vote that gave Daguerre and his associate their life-time annuity (237 in favour, 3 against the bill). Prudently enough, the Minister of the Interior Duchatel asked both Daguerre and Isidore Niépce to write a report on the succession of discoveries and improvements, Isidore simply produced Bauer’s memoir, while Daguerre wrote what later became his booklet. The King of France signed the ruling on Wednesday 7th August, and on the following Monday, the Academy set the date for the official disclosure to be on the 19th of August. No later than 14th August, Daguerre began the long procedure to obtain a letters patent for the British Isles. Daguerre had two busy weeks. Demand was at its peak.

Daguerre had already shown Joseph Hamel a picture by Nicéphore in his possession, M. Mentienné, Mayor of Brie-sur-Marne, was to relate later in his diary that the Tsar’s agent had made him an attractive offer and given him a handsome present. This is the unique French mention of Joseph Hamel, who himself made only one reference to Daguerre, whom he swiftly abandoned in order to concentrate on the other French

protagonist.

The Russian scholar needed absolutely no help from the entrepreneur to accomplish his mission. At the beginning of the month of August, before the official announcement about the method — and he insisted with legitimate pride on this point — Joseph Hamel addressed an historical parcel to Saint Petersburg, containing the "*camera that he reconstituted*" as it was described in Niépce's notes, and the heliographs that he had made himself with Isidore.

The Russian Academy members Herman Hess and Emil Lens were able to present them on 6th September 1839 (old style) and later to read to the assembly Hamel's visionary note where he wrote that he "*couldn't bring (himself) to call Daguerre's method daguerreotype*", as "*this appellation would seem to cancel out the contribution of the real inventor of this new graphic art*".

Niépce did not like *Niépcéotype* and preferred *héliographie*. And in order to illustrate this *new graphic art*, that Joseph Hamel preferred to call *photography*, he sent off two prints belonging to the generous doctor Alfred Donné — an anatomical figure next to Belvedere's Apollo, and an enlargement of a fly's cornea — three astonishing direct positives taken by Hippolyte Bayard, not to mention four beautiful creations by Nicéphore Niépce, that he described as "*infinitely precious*".

Unfortunately, in his report, Hamel only described two of them, a metal plate showing a table set with china, and an experiment on glass with a view of Lux, home of Isidore. He also sent what he described as the first non-inverted image. He hoped to soon be able to photograph the moon, and to see the results of the enthusiastic Mlle d'Angeville's attempts at mountain-top photography. He had made Daguerre's worst fears come true : he too had reinvented photography without waiting for the 19th of August. But being a good sport, he subscribed to a patented camera from Giroux, Daguerre's new partner, for 420 francs.

As for Daguerre, after several public demonstrations, he retired, covered in glory, into complete and utter inactivity. With one notable exception: he painted a picture for the church altar of his village. His entourage was somewhat amazed at his loss of interest in photography. In their *Histoire de la Photographie* of 1862, the Emperor's photographers, Mayer and Pierson, recounted that Daguerre "*sometimes came out of his retirement to pay visits to the numerous photography studios that had sprung up all over Paris, and showed a charming astonishment at the sight of marvels that were being created before his very eyes. — But it's impossible, he would say: how do you manage to obtain such perfection? And with naïve enthusiasm, he would ask questions as though he were completely foreign to this art he had created*".

VI. LUX

Forsaking the promoter of the invention, the Russian agent had become close to the family of the real inventor, and an actual friend of Isidore's. Most appropriately, the latter had been living in *Lux*, in what had previously been Vivant Denon's property. But on 18th March 1839, Isidore and his wife had moved to 7, rue Ste Hyacinthe-St Honoré, Paris, in order to keep an eye on matters and sign the contract with the government.

Octave Puy de la Batie, an aristocrat from the provinces, has left us a few curious clues about their stay in his diary. In the spring of 1839, his heart full of dread, Octave had just sold off the estate of his ancestors, la Bâtie d'Urfé. Ever since, he had only one obsession, and that was to procure himself one of those cameras that all the press was talking about, so that he could take a perfect picture of his beloved castle. But political events hurt his business, and Daguerre was nowhere to be found. So, on Saturday 15th June, Octave went to see the Niépces, and returned there almost every day until he left Paris. Isidore Niépce was also very busy, not with the new invention but with his newfound passion for spiritism. As a devoted follower of the séances held by the famous Du Potet,



*Octave de la Batie by
Giraud de Monbellet
(Château d'Ailly).*

the most efficacious guru of the times, Isidore gave the inconsolable Octave, instead of a camera, the address of a beautiful sleepwalker.

From the moment Joseph Hamel met Isidore, he made a strong impression on him. The Russian scholar put the inventor's son back on the rails and made him take up his father's work. The two men would stay in contact all their lives. Hamel obtained copies of Nicéphore's archives that he dispatched to Russia on the 4th September 1839, with four heliographies.

Isidore located for Hamel the documents pertaining to Nicéphore, and described to him his father's three careers: an Ancien Régime priest, a Revolution's soldier, a Premier Empire and Restauration inventor. He told how his father's taste for optical illusions had inspired him, as a 21-year-old teacher at the Oratorians of Angers, he gave his first-form pupils a Chinese shadow display, which he was punished for at the beginning of the following school year.

He described the rebellion of this young man who adopted the Christian name of Nicéphore in memory of the one who had triumphed over the Iconoclasts, exactly one thousand years earlier. He added the episode about his bad eyesight which had cut short his military career in the most fortunate manner when, at the age of 29, he fell in love with the pretty Niçoise of Sardinian descent, Agnès Romero ; he told of the uncontrollable passion he shared with his older brother for inventing, in a revolutionary France which had abolished all privileges, made scientific research a common right, and created the invention patent. He described how Nicéphore switched from the bicycle to the motorboat, and how he analysed a strange inflammable substance, an asphalt that he had had transported from la Mine du Parc near Seyssel, and how the manipulation of this *Stercus Diaboli* (literally, *shit of the Devil*) suddenly brought him the solution to the problem of fixing images.

Whilst sorting through the letters from Daguerre, the man he hated so much despite the temporary financial tranquillity that he owed him, Isidore decided to publish a brochure in August 1841 : "*Post tenebram, lux!*". The documents were irrefutable, but the style was controversial, reckless and the pamphlet failed to convince the disciples of the commercial genius from Bry-sur-Marne.

Joseph Hamel kindly suggested writing up a more scientific account of Nicéphore's experiments. Isidore entrusted him with all the archives he could find. And so on 29th November 1850, Hamel was able to present to the Saint Petersburg Academy his project to reconstruct the story of the invention, with practically most of the original elements of the case.

Since then, the notes and almost all the treasures that Hamel had sent to the Secretary and to the President of the Academy have gone astray. Most regrettable was the loss of the héliographie received on 18th September 1841, described by Hamel as the first photographic portrait of a living being : it was of a woman's face. Hamel had no children. When he died on 10th September 1862, his collection went to his nephew Wilhelm, who, upon his return to live in Silesia, gave it to the Academy in April 1875, receiving the St. Stanislas medal of the 3rd degree.

In 1941, the Soviet scholar, Toritchan Pavlovitch Kravets, protected the collection from German bombs, and completed their publication in 1949. For this, a Caucasian dictator sent him to the goulag : other peoples' history is not our concern. The President of the Academy ostensibly carried out the order to destroy the book but a few copies had in fact been secretly spared and hidden underground. But that's another story.

EPILOGUE

From 1813 onwards, Joseph Hamel unflaggingly did what he could to spread technological progress in Russia. But once the euphoria that accompanied the Russian victory over Napoleon's troops had died down, the country fell asleep again in its vast Northern solitude.

In 1853, Joseph Hamel had just about managed to convince the Tsar Nicholas 1st of the importance of a first mission to faroff America, easterly neighbour of the then still Russian colony of Alaska, which would be sold only a few years later, in 1867.

It was a matter of some importance, for the Americans had apparently developed the invention of W.H.F. Talbot's friend and partner Charles Wheatstone, creating a remarkable new means of communication, a wire that sang across mountains and rivers : the telegraph. But the Tsar Nicholas 1st was worried : the Americans were famous for their decidedly un-Christian customs, — Did they not eat human flesh?

The Tsar was not so much afraid that his faithful subject Joseph Christianovitch Hamel would be devoured — a real fear of 19th century travellers, but on the contrary, might he not be contaminated and become a cannibal himself ?

The Tsar finally decided to make his agent sign a very peculiar clause as an addendum to his mission order. The Science Academy of Saint Petersburg still has this astonishing document in its keeping:

"I, the undersigned, Joseph Christianovitch Hamel, sent on a secret mission by order of the Tsar, as dictated by the Minister of Public Information, swear on all that I hold dear that on my forthcoming visit to the United States of America I shall not eat human meat."

Hamel fulfilled this new mission to perfection. The following year, the first Russian telegraph was set up in the Baltic, between the military port of the Isle of Kronstadt and Nicholas 1st's neo-gothic chalet — an architectural homage to a trip he had made to Scotland in his youth.

The first message that came over the singing wire announced to the Tsar the defeat of his armies in the Crimea.

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*W.H.F. Talbot, photogenic
drawing, April 1839
(Hamel Collection).*

Printing completed on the 165th anniversary of
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