The Birth of Photography

A Chronology of the Experiments and Collaboration of Niépce and Daguerre

Joseph Nicéphore Niépce (1765-1833), son of a King’s Counselor, lived outside of Chalon-sur-Saône in the Burgundy region in France. After service in the military, Nicéphore and his brother, Claude, pursued scientific experimentation and various inventions.

Louis Jacques Mandé Daguerre (1787-1851), a theatrical scenic artist in Paris, developed the Diorama, a theater in which illuminated screens conveyed a three-dimensional landscape that imitated movement and changes in light through time.

1813  Nicéphore Niépce begins to experiment with copying engravings.

1816  Niépce’s first experiments with a camera. He also experiments with light sensitive substances on metal plates and lithographic stones in anticipation of making multiple prints of a single image. Niépce sustains the desire to produce multiple copies of images throughout his life, distinguishing him from Daguerre.

1822  Niépce makes a successful and permanent heliographic copy of an engraving by using bitumen on glass. The bitumen hardens with exposure to light.

1826  Niépce uses bitumen on pewter plates to copy, etch, and print copies of engravings, and he names the process “heliography.” He is contacted by Daguerre, who has been unable to fix images he has made using silver chloride.

1826-27  Niépce creates a successful heliograph from nature using a modified camera obscura. With an exposure time of approximately eight hours, it is the first permanent view of nature.

1827  June – Niépce sends Daguerre a pewter heliograph of an engraving. To protect the secrecy of his process, Niépce first removes the bitumen coating from the plate.

August – Niépce departs for London to visit his gravely ill brother. While there, Francis Bauer, a draftsman at the Royal Botanical
Gardens, persuades Niépce to compose a memoir to the Royal Society about his process. Entitled *Notice sur l’héliographie*, the memoir is accompanied by several héliographs. It fails to achieve recognition because Niépce is unwilling to provide technical details in the absence of patent protection.

**1828 January** – Niépce returns to France, leaving his héliograph plates in London. He visits Daguerre who offers to assist Niépce in making his process profitable although he declines to enter into a partnership. Niépce abandons pewter plates in favor of silver-covered sheets of copper, which are more suitable as printing plates, but he continues to use bitumen as the light-sensitive agent.

**1829 October** – Niépce and Daguerre enter into a partnership. The contract states that Niépce is the inventor of the process and that Daguerre will attempt to improve it. Niépce and Daguerre continue their researchers separately. Both men work with iodine as a light-sensitive agent. It proves difficult to fix and produces images whose lights and shadows are reversed.

**1833 July 5** – Niépce dies of a stroke at the age of 69. His son Isidore, aged 38, succeeds his father in the partnership, but does little to further the invention. Daguerre continues to experiment with Niépce’s bitumen process and with iodine on silvered plates.

**1835** Daguerre discovers that mercury vapor will bring out (i.e. develop) the latent image formed with iodine.

**1837 May** – Daguerre discovers that salt water dissolves the unexposed silver iodide and fixes his images. The process produces unique, positive images. Daguerre views this as an entirely new process. Isidore Niépce reluctantly agrees to allow the process to bear Daguerre’s name alone, even as Daguerre agrees to publicize the process only in conjunction with héliography so that Nicéphore Niépce’s role in the invention of photography will be recognized.

**1838** François Jean Dominic Arago, Director of the Paris Observatory, a member of the Academy of Sciences, and a powerful figure in the French legislature, recognizes the revolutionary nature of the invention and offers Daguerre his support.
1839 **January** – Arago first announces Daguerre’s invention (without revealing the details of the process) to the Academy of Sciences. In response, the Englishman William Henry Fox Talbot announces his own “photogenic drawing” process, on which he has been working since 1834.

**February** – Arago’s and Talbot’s announcements lead Francis Bauer to promote the priority of Niépce’s heliographic process.

**June** – A committee makes a formal recommendation to the French legislature to purchase Daguerre’s and Niépce’s processes, offering Daguerre a majority share.

**July 3** - Arago submits his report, promoting the simplicity of the process and its utility to science and art. On July 30 the legislature passes the bill, which is signed into law by King Louis-Philippe on August 7.

**August 19** – The “daguerreotype” process is announced and “given to the world” in a public proclamation. In Daguerre’s manual, Niépce is given due credit for inventing the process of heliography, which is characterized as being superseded by the entirely distinct daguerreotype process.

1841 Isidore Niépce publishes *The History of the Discovery Improperly Named Daguerreotype, preceded by a notice on the true inventor Mr. Joseph Nicéphore Niépce*.

1867 Victor Fouque publishes *The Truth about the Invention of Photography*, asserting Niépce to be the true inventor of photography.

Although Niépce was subsequently remembered and honored as a photographic pioneer, the priority and significance of his position was not argued again until Helmut Gernsheim began his own research into the history of the medium in the 1950s. Gernsheim’s convictions fueled his search for and rediscovery of Niépce’s *View from the Window at Le Gras* in 1952.