A Trip to Venice to visit the Liceo Foscarini

The camera obscura for daguerreotype use by the abbot Francesco Zantedeschi

III. 1, A view of the Liceo Marco Foscarini in Venice. Photo credit: Riccardo Zipoli
The daguerreotype camera preserved in the physics department of the Liceo Marco Foscarini school of Venice is the oldest object of its kind that still testifies to the activities of experimenters with the daguerreotype process in Venice. An examination of the special features of the construction of this particular daguerreotype camera and the context to which it belongs leads us to believe that it was commissioned for use in the early experiments of the abbot Francesco Zantedeschi, and that it was constructed in Venice by Francesco Cobres, the skilled mechanic of the physics department.

KEY WORDS: Francesco Zantedeschi, Francesco Cobres, Italian daguerreotype camera, Liceo Marco Foscarini, Liceo Santa Caterina, early photography in Venice, Alexander John Ellis

A fascicle in the 19th century archive of the Liceo Marco Foscarini high school in Venice, formerly known as the Liceo Santa Caterina, contains inventories of the various tools and instruments used in the historical physics department (Gabinetto di fisica), which had some of the best experimental equipment available in the first half of the nineteenth century, and was second only in the Veneto Region to the physics department of the University of Padua. One of the inventories written in 1841-1842 by the professor of physics Francesco Zantedeschi (1797-1846) describes a camera obscura with its associated equipment. The “camera obscura for daguerreotype use” and its tripod. The “camera obscura for daguerreotype use” and its tripod were rediscovered among the evocative old devices and equipment of the physics department during the preparation of the exhibits for the Anton Maria Traversi Physics Museum, a small museum that the Venetian school dedicated to its famous physics department in 2003, and they are currently on display there. They are the oldest surviving objects that testify to the passionate and enthusiastic experiments carried out in Venice following the announcement of Daguerre’s new daguerreotype process.

This daguerreotype camera is an attractive, solid and well constructed device, consisting of a solid body with a sliding and tilting base, which hinges upon the screen-bearing frame. This contains a sliding box within which the lens is mounted. A transparent screen of ground-glass is mounted at the back in the plate-bearing frame, which fits flush into the body of the camera, allowing the camera to be focused. In order for a shot to be taken this screen had to be raised by rotating it on two hinges attached to its upper edge, then laid flat on top of the camera so that the daguerreotype plate, held inside a frame, could be inserted inside the camera. The camera is equipped with two plate-frames, each of which can be adapted with two further frames to reduce the format of the plate. The plate-frames each have a recessed cover which holds the plate in position, and a curtain-door which can be raised when an exposure is to be made. The plate-frames fit tightly inside the screen-frame, and takes the place of the ground-glass screen when the plate is exposed to the light. The lens section of the camera is mounted directly on the sliding-box front of the camera, and there is a folding tripod for use in the countryside.

The daguerreotype camera that Francesco Zantedeschi listed in the physics department of the Liceo Santa Caterina is an efficient device, skilfully made and unique in appearance. The most striking element is the way the two sliding boxes fit together, a design which distinguishes

Ill. 2, Rudolf Hoffmann, F. Zantedeschi Nach einer Photographie v. Pr. Borlinetto in Padua, 1856, in Gallerie ausgezeichneter Naturforscher, Vienna, J. Haller 1860. Lithograph made by Rudolf Hoffmann in 1856 from a photograph of Francesco Zantedeschi taken by Francesco Borlinetto (1827-1904). The latter was Zantedeschi’s assistant while he was professor of physics at the University of Padua, particularly devoted to the study of photography. From Gallerie ausgezeichneter Naturforscher, Vienna, J. Haller 1860.
this camera from any other known model. The rear box is fixed to the base board, while the front box slides in or out, bringing the lens into focus. This system was not used as the basis for later types of camera, its construction being more similar to the optical reflex camera obscura which had been produced in the early nineteenth century.

One wonders who constructed this device in such a professionally impeccable, accurate and precise way. Certainly it was made by a highly skilled artisan or mechanic, yet neither the camera nor the lens bear any indications of the manufacturer and no documents which testify to its origin have as yet been found in the archives.

News of the development of a new photographic process soon came to Venice and information about the relative procedure circulated quickly. This was largely due to the high level of interest in various important scientific centres such as the Venetian Institute of Sciences, Letters and Arts and the physics department (Gabinetto di fisica) of the Liceo Santa Caterina high school, run by Zantedeschi. But it was also encouraged by the Gazzetta Uffiziale di Venezia, a daily newspaper which paid particularly close attention to new scientific developments, thanks especially to the tireless Giovanni Minotto (1803-1869). At the same time, Minotto was compiling his Dizionario tecnologico (Technological Dictionary), which was published in Venice in instalments, providing detailed information about the most significant contemporary technological innovations.

While the description of the daguerreotype procedure divulged in the press was sufficiently precise and detailed, the same cannot be said for the features and characteristics of the camera itself. Even at the end of October 1839, while writing the dictionary entry for photography in his Dizionario tecnologico, in describing the method of making of daguerreotypes, Minotto wrote apologetically: “It would certainly be very useful to indicate here what the best form of the camera obscura would be [...] but we have not been able to find any indications in this regard and are therefore forced to limit ourselves to mere conjectures.”

Whoever designed and manufactured the camera described above thus seems to have operated independently, on the basis of rather generic information. The camera described and illustrated by Louis Jacques Mandé Daguerre (1787-1851) in his patent design and in the manual published on the occasion of the divulgation of his procedure was based

The former Liceo Santa Caterina high school, now the “Marco Foscarini” Liceo Classico ed Europeo high school in Venice

One of the oldest high schools in Italy, the Liceo Santa Caterina was founded in 1807 by a Napoleonic decree. The founding father of the school was the Venetian abbot Anton Maria Traversi (1765-1842) who, having been put in charge of establishing the new institute, chose to locate it in the former convent of Santa Caterina. This complex of ancient buildings had belonged to a community of Augustinian nuns until it was suppressed in the Napoleonic period, and the associated church of Saint Catherine housed precious paintings by Paolo Veronese, Jacopo Tintoretto, and Palma Il Giovane. Traversi furnished the prestigious library of the school with a splendid seventeenth-century wooden carved bookcase made by the German sculptor Franz Pauc. An esteemed physicist and mathematician, Traversi gave the school a collection of mathematical, physical and astronomical instruments, which was enlarged by Abbot Francesco Zantedeschi after 1838, when he became head of the department of physics and applied mathematics. This new equipment made the physics department of the school one the most prestigious in the whole region of Veneto. It was reassembled in 2003 in the scientific museum of the school, named after Anton Maria Traversi, where the “camera obscura for daguerreotype use” is now on display.

READ MORE: Mario Isnenghi, Il Liceo convitto Marco Foscarini..., Padua, Il poligrafo, 2005, p. 9-42

READ MORE: Riccardo Zipoli
In an article published on 27th August 1840 in the *Gazzetta Privilegiata di Venezia*, Minotto refers to his dictionary entry for Photography and points out that here he had “reported the characteristics described by Minotto, all lead us to suppose that the device from Francesco Cobres. It is probable that Cobres constructed this curious camera on the basis of his own experience of making optical reflex cameras, in the absence of any more specific model for a daguerreotype camera. It is less probable that Cobres made the lens, as there does not seem to be any evidence that the mechanic had ever made any such optical devices. Zantedeschi would have easily obtained a quality lens corresponding to the characteristics specified by Minotto in his dictionary entry from the optician Alessandro Duroni (1807-1870)11, with whom the abbot had shared his interests during the years he had lived in Milan, and who would continue to be one of his preferred suppliers in the years that he would spend in Padua.

### A WINDOW ON THE WORLD

#### NOTES


2. Liceo Marco Foscari di Venezia, *Catalogo delle macchine esistenti nel gabinetto di Fisica dell’I.R. Liceo Convitto di Venezia, Liceo Ginnasio Statale Marco Foscari*”, [Inventory 1838]. Entry number 561 records “561, a camera obscura for daguerreotype use with achromatic lens and a support with three articulated legs”. This is followed by number 562 “objects for daguerreotype use, i.e. a mercury pot, a box, n. 2 trays, a box with bottles for chemical reagents and plates (...).” This inventory drawn up in 1838 was updated until the school year 1857-1858.

3. For further information please see a more detailed study by the writer of this article: Prandi, Albero Uno camera obscura ad uso daguerrotipo..., in Nico Stringa, (ed.), Fotologie. Scritti in onore di Italo Zannier, Padova, Il Poligrafo, 2006, pp. 287-293. Online: https://www.academia.edu/10622459/


11. For correspondence between F. Zantedeschi and Duroni see: Verona, City Library, Zantedeschi Fund, Busta 838.
APPENDIX
The daguerreotype in Venice

In Venice, the daguerreotype played an important role, and it has a unique history. In fact, soon after the publication of the daguerreotype process, local experimenters set up a wide-ranging network of active research that included Francesco Zantedeschi and many others in the Italian territories of the Hapsburg Empire, and they were promptly joined by a series of foreign travellers, men of letters and artists who saw Venice as a perfect location in which the newest visual art of photography could be tested.

Apart from the usual activities of travelling daguerreotypists or proto-photographers in their studios, which Venice shared with the other major western cities, Venice proved to have a singular capacity to channel and focus some of the most significant tests regarding the capabilities of this radically new medium of representation.

As early as the summer of 1841, the English philologist, Alexander John Ellis (1814-1890) in order to create his publishing project Italy Daguerreotyped, which was never to completed, made a series of sixteen daguerreotypes in Venice. Unlike contemporary etchings or lithographs, they did not consist of a sample of the traditional scenes as indicated in the guidebooks to the city, but were conceived as a more systematic survey, starting from the Arsenal and moving along the Grand Canal to finish at the Ca’ Pesaro palace, in some cases also including a view from the other side of the canal. In his systematic sequence of shots Ellis adopts a procedure similar to that of the philologist and he combines this with other new features offered by the daguerreotype: the possibility that the sciences had been seeking for some time of obtaining a standardized form of visual sampling.

Ellis’s work is full of references to the importance of visual art created in Venice to the Western tradition, and the way in which, starting from eighteenth century landscape views, it had become central to attitudes towards art that then permeated Western culture. He showed the value of direct experience, and left the elaboration of the outcome to others. It was thus up to another Englishman, John Ruskin (1819-1900), to explore the further possible applications of the daguerreotype. Over a seven-year period between 1845 and 1852, when he made frequent visits to Venice, Ruskin made a daguerreotype survey of Venetian buildings during which he perfected an integrated system of documentation. This comprised daguerreotype views with an analytical purpose, combined with sketches and drawings, the annotation of measurements, in addition to detailed notes relating to the colour of the buildings.

This method was exemplary. Not only was it an integral part of the critical historical survey that Ruskin proposed, but it was also widely disseminated. It is particularly significant for photography because at such an early date it helped to define the roles and potentialities of this new medium with regard to the representation of reality.


III. 5, A Unidentified daguerreotypist, View of Ca’ d’Oro, 1846, Venice. Sammlungen Dresden, Germany, TSD D 00074. See the daguerreotype on Daguerreobase.

III. 6, Dr. Alexander John Ellis, View of Venice from the water, Dogana del Mare, & Church of San Maria della Salute, 1841-07-16. Part of the Ellis group of daguerreotypes. National Media Museum, Bradford, United Kingdom, inv. 1890-56-V5. See the daguerreotype on Daguerreobase.

III. 7, Joseph Wawra, Palazzo Foscari in Venice, 1848. Albertina, Austria, inv. FotoGLV2000/10064. See the daguerreotype on Daguerreobase.

III. 8, Ruskin, Ken and Jenny Jacobson Collection. Images: Courtesy of Bernard Quaritch.