Ewa Frąckowiak, Elżbieta Rosłoniec

La Place des Martyrs et la Taverne du Bagne of 1885 by Félix Buhot. Historical Research and Material Testing of Its Celluloid Plate

In 1972 the National Museum in Warsaw received the Polish artist Konstanty Brandel's art collection from Brandel's sole heir, his sister's son Witold Leitgeber. The bequest included works by French artists active in Paris at the turn of the nineteenth and twentieth centuries.[1] Among them was a printing plate with the composition of *La Place des Martyrs et la Taverne du Bagne* by Félix Buhot[2] (**fig. 1**).

"La Taverne du Bagne", a cabaret founded by Maxime Lisbonne (1839–1905) in November 1885, was located in Paris in boulevard de Clichy or, more precisely, in a lane between rue des Martyrs and boulevard de Clichy. On its façade, Lisbonne placed a sign that read: *Entrée des condamnés, et Sortie des libérés l'espérance est bannie de ce lieu...* [Entrance for the condemned, and exit for the released, hope is banished from this place...], a travesty of the inscription over the gates of hell in Dante's *The Divine Comedy*, "All hope abandon ye who enter here."[3] Lisbonne, a former Communard, decorated his place as a prison and quickly acquired a peculiar clientele, a mix of those who sought eccentric fin-de-siècle diversions, former prisoners and Lisbonne's comrades sympathizing with socialism and anarchy. The cabaret operated in this space until 12 February 1886, when it was moved to rue de Belleville and renamed "Taverne du Bagne et des Ratapoils."[4] It was in 1886 that Félix Buhot made the illustration whose plate is examined here.

[1] Stanisław Lorentz described this enormous bequest of over 2,500 works and the contents of Brandel's studio, which included works by other artists of interest to him, in the introduction to Irena Jakimowicz, *Konstanty Brandel (1880–1970)*, exh. cat., the National Museum in Warsaw, 14 November – 31 December 1977 (Warsaw: Muzeum Narodowe w Warszawie, 1977), pp. 2–3; see also Mirosław Adam Supruniuk, "Konstanty Brandel (1880–1970)," in *Katalog grafiki Konstantego Brandla. Ze zbiorów Archiwum Emigracji Biblioteki Uniwersyteckiej w Toruniu*, Mirosław Supruniuk, ed. (Toruń: Muzeum Uniwersyteckie, 2005), p. 12.

[2] *La Place des Martyrs et la Taverne du Bagne*, 1885, etching, celluloid plate, 33.1 × 44 cm, signatures and text: within the composition, bottom right *Felix Buhot - Nov. 1885*; below the composition, two columns, four lines each: *Pendant qu'ils sont la bas* (...) *tinte sur les comptoirs*; right margin: *O Forçats !*; between them, within the remark: *VIN A 16 SOUS*. Endowment of Konstanty Brandel, bequest of Witold Leitgeber of 16 June 1972 (Ks. Akc. 8484/72). The National Museum in Warsaw, inv. no. Gr.Ob.F.n.1984 MNW.

[3] Dante Alighieri, *The Divine Comedy* [online], "The Vision of Hell," Canto III, line 9 [retrieved: 8 July 2013], at: <http://www.gutenberg.org/files/8789/8789-h/8789-h.htm#link3>.

[4] Philippe Autrive, "Maxime Lisbonne" [online], *La Ferté-Alais.com* 2009 [retrieved: 10 February 2013], at: <http://www.lafertealais.com/contents/fr/d66_maxime_lisbonne.html>.

The print features Place des Martyrs in Paris (**fig. 2**)[5] with Lisbonne's "Taverne du Bagne" and a crowd waiting to get in. A wide border filled with printed remarks accompanies the main composition. Its bottom segment features the text of a well-liked ballad of the era written by a popular Parisian journalist and Buhot's friend Jean Le Fustec (1855–1910). Le Fustec was also known as a Breton bard, a self-appointed arch-druid who went by the name Lemenik and used various other nicknames, including Yann ab Gwilherm in Breton Gaelic.

Félix Hilaire Buhot (1847–98) was a painter and etcher who studied at the École des Beaux-Arts, in Isador Pils's studio. He began with small nature sketches and graphic illustrations,[6] learnt etching around 1873 and quickly became successful and recognized as a talented etcher. His prints were received enthusiastically at the Salons of 1875–86, as well as in publications, folders and books containing original prints. He lived mostly in Paris, but often visited Great Britain, the home of Henrietta Johnston, whom he would marry in 1881. Suffering from depression, he abandoned his art in 1892 and died prematurely in 1898.

Buhot experimented mostly with colour etching, aiming to use its advantages to modernize all etching. The streets of Paris were the "protagonists" of his compositions. His prints and lithographs expertly convey the effects of the elements at play: rain, snow, light and space. He took great care to maintain the high quality of his prints and their limited editions, stressing each one's uniqueness by placing different remarks on their margins. It was also very important to him to use high-quality paper. Believing that contemporary paper was not durable, he sought out old rag paper containing as little cellulose as possible, and took advantage of its shades and textures to create his compositions. He also made his own paper with chemical processes, for instance immersion in a turpentine solution. To stress that the copies were *épreuves d'artiste*, he stamped his works with a monogram, which incorporated an owl (L.977).[7]

Buhot also took care with editions of his reproduction prints, which in his case tended to be illustrations. One example was the famous "Japonisme, dix eaux-fortes par Félix Buhot," etched renditions of pieces from Philippe Burty's collection, of which Buhot self-published 150 numbered copies in 1883.[8] Buhot belonged to a generation of etchers who had received the best technical training and were well aware of their artistic discreteness. Every print in a series was an individual work of art, looked over carefully and perfected – this was the definition of original print that Burty emphasized in a series of articles.[9] Buhot conducted numerous technical experiments together with Edgar Degas and Camille Pissarro, and was in constant

[5] Félix Buhot, *La Place des Martyrs et la Taverne du Bagne*, 1885, etching, drypoint, aquatint, paper, 33.8 × 44.8 cm, inv. no. 1904,0219.122, The British Museum, London [online] [retrieved: 11 March 2013], at: <http://www.britishmuseum.org/research/search_the_collection_database/search_object_details.aspx?objectid=3049297&partid=1&searchText=1904%2c0219.122&fromADBC=ad&toADBC=ad&numpages=10&orig=%2fresearch%2fsearch_the_collection_database.aspx&currentPage=1>.

[6] See Henri Beraldi, *Les graveurs du XIX^e siècle. Guide de l'amateur d'estampes modernes*, vol. 4 (Paris: Librairie L. Conquet, 1886); Gustave Bourcard, *Félix Buhot. Catalogue descriptif de son œuvre gravé* (Paris: Henry Floury, 1899; reprinted, New York: Martin Gordon, 1979); Jay M. Fisher, Colles Baxter, *Félix Buhot, Peintre-Graveur: Prints, Drawings, and Paintings* (Baltimore, Md.: Baltimore Museum of Art, 1983).

[7] See Frits Lugt, *Les marques de collections de dessins et d'estampes* [online], Fondation Custodia, Paris [retrieved: 9 February 2013], at: <http://www.marquesdecollections.fr/detail.cfm/marque/6942/total/1>.

[8] Beraldi, op. cit., pp. 25–9.

[9] Philippe Burty, "La Belle-épreuve," *L'Eau-forte en 1875*, 1875, pp. 7–13; id., "L'Eau-forte moderne en France," *L'Eau-forte en 1874*, 1874, pp. 5–13; Philippe Burty was a print collector and enthusiast, as well as a critic and an engraver, and he made a significant contribution to the revival of knowledge about and the rebirth of the art of original etching.

pursuit of new means of expression. He also designed illustrations, mostly frontispieces for *L'Illustration Nouvelle*, and in 1877 produced an etched illustration of *L'Enterrement du burin* for the magazine.[10]

According to the author of a monograph about his graphic work, Buhot reproduced *La Place des Martyrs et la Taverne du Bagne* in three states.[11] The celluloid plate in the collection of the National Museum in Warsaw allows us to investigate his work on the initial design. Like the impressions of the first state, the central composition, placed on celluloid film, uses the etching technique and contains all the elements that would be repeated in the subsequent states. But fundamental differences already become visible in the margins of the plate, which served Buhot to record his remarks.[12] Two figures present in all three states, a policeman on the left and a galley slave on the right, as well as the steam-sailing ship in the upper left corner, appear merely as outlines in this version. In all three states, as well as on the celluloid plate, the bottom part of the composition border is filled with text. On the plate, the two columns of text are separated by a circle with the words *VIN A 16 SOUS*; in the first state, a cupid flying on dragonback replaces them, and in the second state an allegorical woman's figure is added. A print of the third state, different because of additional graphic techniques (etching, drypoint needle and roller), the margins are filled with many figures arranged in their own scenographies.

Because the dimensions of the composition on the celluloid plate are identical to the dimensions of the impressions made from the copper plate, it likely served as a sort of preparatory sketch, which was later transferred onto a grounded plate and again etched and incised.[13] The copper plate with this composition has unfortunately not been found among the many surviving works of art and items from Buhot's atelier, which are mostly in French, British and US collections.[14] If it were to be found, we would be able to compare the prints Buhot made on the two different plates in greater detail. The materials under examination here merely allow us to determine that after the central composition was transferred onto a copper plate, the sketches in its margins were significantly transformed and filled in, while the main print was enriched with additional graphic techniques.

At this point in the study of the plate using methods available to the art historian, it became necessary to enlist the help of conservators trained in chemistry in order to determine what

[10] Félix Buhot, "Frontispice pour *L'Illustration nouvelle*," 1877, etching, drypoint, aquatint, roller, paper, 39.4 × 44.9 cm, inv. no. 178454, New York Public Library [online] [retrieved: 11 March 2013], at: <http://digitalgallery.nypl.org/nypldigital/id?498460>.

[11] Gustave Bourcard, *Catalogue descriptif de son* [*Félix Buhot*] *œuvre gravé* (Paris: H. Floury, 1899), cat. no. 163.I–III.

[12] Buhot habitually used the margins of his compositions for remarks, which he built up into separate satirical or allusive stories. An example of this is another of his prints in the collection of the National Museum in Warsaw, the title page of *Les graveurs du XIX^e siècle par Henri Beraldi* (inv. no. 35918/11 MNW), where he illustrated his activities to popularize original etchings in a comics-like style. Among them were an unexecuted idea he called "Musées d'estampes en province," the article "La Belle-épreuve" and the "Maîtres et Petits Maîtres" publications series; he wrote bitterly that the price of an engraving was the same as that of a circus ticket.

[13] We would like to thank Piotr P. Czyż of the Department of Prints and Drawings of the National Museum in Warsaw for bringing to our attention the analogy with the methods of goldsmith-engravers.

[14] After Buhot's death, his widow honoured his will and donated the works as follows: the collection of his own illustrations to the Bibliothèque nationale in Paris (1898–99); the collection of illustrations by other contemporary and earlier artists to the Musée du Petit Palais (1902) and the British Museum, Musée des Beaux-Arts de Caen and Musée du Luxembourg (1902). The family did, however, keep some of his works and sell them at several auctions. In 1979–90 they landed in the collection of the Bibliothèque nationale. Lugt, op. cit.

material was used to make the ground. We designed a research project to study the atypical graphic plates from the turn of the nineteenth and twentieth centuries in our museum. This project would also examine the approximately one hundred plates made mostly by Feliks Stanisław Jasiński (1862–1901) and Feliks Jabłczyński (1865–1928), as well as single ones by others. The eminent expert Ewa Milicer is engaged in studying them from the art-historical point of view.

The work led by Elżbieta Rosłoniec of the Laboratory of the National Museum in Warsaw is organized as follows: a sample was taken from the damaged bottom part of the plate. Its physical and chemical properties and the chemical composition of the plastic were determined. The sample was examined carefully under a miscroscope in visible light and ultraviolet light. Also tested were its solubility, mechanical resilience, density, reaction from thermolysis caused by the flame of a burner. Its melt flow index was established. Finally, characteristic chemical reactions and specific tests for plastics were conducted.

This analysis revealed that the plate had been made out of a flat, rigid, semi-transparent 0.15-cm thick yellowed plastic, which was difficult to cut with a scalpel and which scratched easily. To confirm the physical and chemical tests, infrared FT-IR spectroscopy was conducted in the Laboratory of Optical Spectroscopy of the Institute of Organic Chemistry of the Polish Academy of Sciences in Warsaw[15] (**fig. 3**). Distinctive bands of C-O bonds of c. 1140–1100 cm^{-1}, $-NO_3$ c. 1640 cm^{-1}, C=O c. 1760–1690 cm^{-1} were observed. The FT-IR spectrum test of the plastic revealed characteristic absorption bands for model celluloid.[16] In the hot stage, flow temperature was marked, and it was determined that the heated sample softened at 70°C and melted on a glass plate at 95°C. After it was cooled down, it set as a thin colourless film. In ultraviolet light it revealed a blue fluorescence.

The sample was resistant to diluted acids or alkali, insoluble in water, and swelled in alcohol. It dissolved in acetone and a solution of alcohol and ether, forming a thick, colourless layer. At high temperatures, it broke down and emitted a gas. It burnt abruptly with a light-coloured flame. In carbonizing, it emitted a nitrous oxide vapour and a faint smell of camphor. Some plastics have distinct characteristics that make them easily identifiable. Celluloid smells like camphor when it is rubbed with a dry hand or a piece of felt. Infrared spectroscopy and other tests ascertained the presence of celluloid, a plastic made out of natural substrate consisting of nitrocellulose and camphor, as well as cellulose acetate. The ratio of these two ingredients depends on the degree of reaction, the quantity of leftover nitrates and the amount of camphor (softener). The analysis also took into account changes due to aging that had taken place in the plate's material. It had degraded from light, oxidized and its bonds had fermented towards celluloid acetate. This led to the discovery of minor deviations from standard values of pure chemical substances.

Celluloid, nitrocellulose, is the oldest synthetic thermoplastic, which was invented in 1868 and subsequently replaced by celluloid acetate because of its flammability.[17] The invention of celluloid led Buhot, who was infinitely curious about new technologies, to experiment with

[15] Infrared spectroscopy (IR) allows analysis of the structure of functional groups, as well as their interaction with their environment. A Jasco FT-IR 6200 Spectrometer was used to analyse of solids, and to measure solids spectroscopy (ATR on a crystal of zinc selenide).

[16] NIST Standard Reference Database, Number 69 [online] [retrieved: 1 March 2012], at: <http://webbook.nist.gov/chemistry>.

[17] Krzysztof Dobrosz, Adam Matysiak, *Tworzywa sztuczne, materiałoznawstwo i przetwórstwo* (Warsaw: Wydawnictwa Szkolne i Pedagogiczne, 1994).

this material to make a graphic plate. It turned out to be very easy to treat and to mould. Thin sheets could be cut with shears and thicker ones with a saw previously warmed in hot water. The negative could be worked cold or with a heated tool. Corrections could be made with acetone and polished with wax. But pressure from the press could lead to stress and damage of the material. Care had to be taken while working with this flammable material.[18] It was probably for this reason that later artists used celluloid only for their own samples or experiments, reserving costly copperplate to prepare compositions commissioned by publishers.

Thanks to the results of these chemical tests, we were able to determine conclusively the composition of the material Buhot had used to make his graphic plate. We were able to verify its earlier description as an organic base, a "colloid plate." The establishment of the fact that the artist worked on a celluloid plate confirmed his monographers' earlier theories that his art was technically innovative and that he tended to push the limits of technology.[19] The exceptionally fascinating outcome of the collaboration between art historian and chemist-conservator will make it possible to plan further analyses of atypical graphic plates. It will allow us to advance specialized knowledge of the use of inventions by artists who reformed the graphic arts at the fin de siècle.

[18] *Encyklopedia techniki*, vol.: *Chemia* (Warsaw: Państwowe Wydawnictwo Naukowe, 1972).

[19] Jerzy Werner, *Podstawy technologii malarstwa i grafiki* (Łódź: Państwowe Wydawnictwo Naukowe, 1985); Andrzej Jurkiewicz, *Podręcznik metod grafiki artystycznej* (Warsaw: Arkady, 1975); Aleksander Kołodziejczyk, *Naturalne związki organiczne* (Warsaw: Państwowe Wydawnictwo Naukowe, 2003); Jerzy Ciabach, *Żywice i tworzywa sztuczne stosowane w konserwacji zabytków* (Toruń: Uniwersytet Mikołaja Kopernika, 1998).