



Cast Phenolic Rods,
c. 1940s
Courtesy Amsterdam
Bakelite® Collection
© Reindert Groot

Bakelite In Yonkers: Pioneering the Age of Plastics

Collecting for the New Millennium:

Recent Acquisitions 2000 - 2010

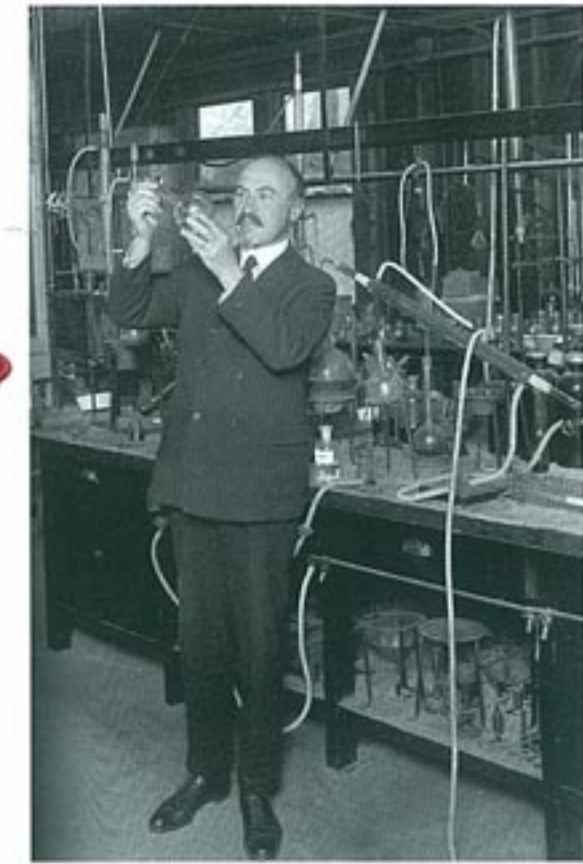
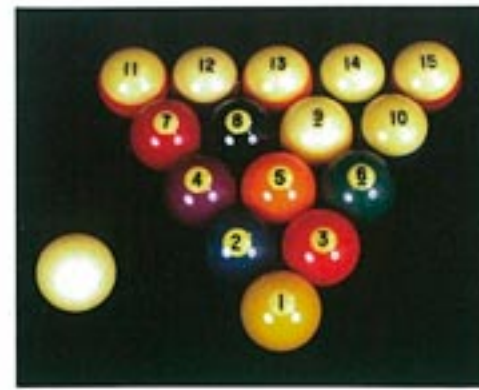
Jacob Lawrence:

Prints 1963 - 2000, A Comprehensive Survey

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Exhibitions



Bakelite, the "Material of a Thousand Uses"

The word Bakelite® conjures images from a glamorous Art Deco bracelet to hardworking handles on pots and pans. It is the "Material of a Thousand Uses." Leo Baekeland invented the plastic called Bakelite in his Yonkers laboratory in 1907, and the Museum brings more than 300 rare objects made from Bakelite and the more modern melamine, for the first time, to New York.

Bakelite In Yonkers is drawn from the holdings of the Amsterdam Bakelite® Collection owned by Reindert Groot, a Netherlands producer and director, as well as that of Hugh Karraker, a great grandson of Leo Baekeland; the Yonkers Historical Society; and other private collections. *Bakelite In Yonkers* traces the early history of Bakelite's roots in Yonkers in thematic sections such as "Industry," "Toys and Games," "The Office," and "Image and Sound" to show a huge range of products and forms influenced by Art Deco, Bauhaus, and Streamline design.

Molded or cast into toys, radios, typewriters, lamps, coffee grinders, and thermoses, Bakelite also became the inexpensive alternative to precious materials, such as the ivory used for billiard balls. It was soon the darling of mid-Modernist designers from Norman Bel Geddes and Raymond Loewy to contemporary designers such as Philippe Starck. Bakelite's enormous influence on the lives of nearly everyone in the 20th century continues today as it finds its place in computers and cars and equipment for space exploration.

Bakelite's inventor, Leo Henricus Arthur Baekeland, born in Belgium in 1863, was by age 23 a brilliant chemistry student at the University of Ghent when he was offered an assistant professorship there. Instead of accepting the position, he married his professor's beautiful daughter Celine Swarts

and that same year, 1889, took her to America to settle in Yonkers and begin work in his home-based laboratory. Baekeland sold the patent for one of his first inventions, the revolutionary photographic paper Velox, to the Eastman Kodak Company, which made him a rich man and an independent researcher. Turning his talents to finding a substitute for shellac, a quest eluding many chemists of the time, he invented Bakelite by combining phenol (carbolic acid) and formaldehyde under specific conditions of heat and pressure to produce a "magical" substance that, when cooled, was not affected by solvents or reheating. A patent for Bakelite was obtained in 1906. Bakelite resins were produced in 1907 and on February 8, 1909, in a speech delivered to the American Chemical Society, the discovery of Bakelite was formally announced. In 1910 the General Bakelite Corporation, later the Bakelite Company, was founded and Dr. Leo H. Baekeland served as president until it merged with the Union Carbide Corporation in 1939.

The rest is the history of color, use, impermeability, and adaptability.



In Perth Amboy, New Jersey, Leo Baekeland found the ideal place for his first commercial-scale plant to produce Bakelite. On September 29, 1910, the General Bakelite Company went into business under the ownership of Dr. Baekeland and Roseeler & Hasslacher, an importer of pheno and cresol, two ingredients in addition to formaldehyde essential to the production of plastic. By 1917 this plant was abandoned for more modern facilities. Bakelite plants were set up in Germany near Berlin, others in Europe, Japan, Australia, South Africa, and South America. By 1944, the year of Baekeland's death, global production of phenoplastics exceeded 175,000 tons.

**Bakelite In Yonkers:
Pioneering the Age of Plastics**
February 6 – June 6, 2010

Upper Level

ABOVE Hair Comb; Toy Projector; Toy Telephone; Word-game Tile; Teaching Clock; Kitchen Scale.
Photos Courtesy Amsterdam Bakelite® Collection, ©Reindert Groot

Toy Fire Engine, Industrial Color Samples, Cast Pool Balls, and Typewriter
Photos Jason J. Weller. Courtesy of the Hudson River Museum

NEXT PAGE Leo Baekeland, 1909
Courtesy Amsterdam Bakelite® Collection, ©Reindert Groot

General Bakelite Company. Photograph.
Collection of the Hudson River Museum

Bakelite In Yonkers: Pioneering the Age of Plastics is organized by Reindert Groot for the Amsterdam Bakelite® Collection, and Hugh Karraker in partnership with the Hudson River Museum.

This exhibition and its programs were made possible, in part, by Steven Naifeh.

Bakelite® is a registered trade name of Hexion Specialty Chemicals, Inc., Columbus, Ohio.

Plastics, Painting, and a Yonkers Home

Leo Baekeland, the inventor of Bakelite®, the world's first synthetic plastic, ushered in the Age of Plastics. He invented Bakelite in Yonkers



and this Westchester suburb became the "Home of the Plastics Age." Baekeland, and his bride Celine (Bonbon), both born in Belgium, settled in Yonkers.

The family's fortunes followed the progress of Dr. Baekeland's scientific genius, from his development of Velox to founding the Bakelite Company. This couple, their work and role in the community inspires *Bakelite In Yonkers: Pioneering the Age of Plastics*.

Home

With new wealth from two sales — the rights to Velox photographic paper to George Eastman of Eastman Kodak in 1899, and the Nepera Chemical Company, located between Yonkers' Barney Street and Tompkins Avenue, the Baekelands bought the three-story, turreted house known as Snug Rock in Yonkers' Harmony Park. Sometimes called Brookside Park on period maps, the small neighborhood was a cul de sac of a few fine homes overlooking the Hudson River. The stable on the property was converted into a laboratory for "Doc Baekeland." Here their children George and Nina grew up, attending Yonkers School 16 on North Broadway.

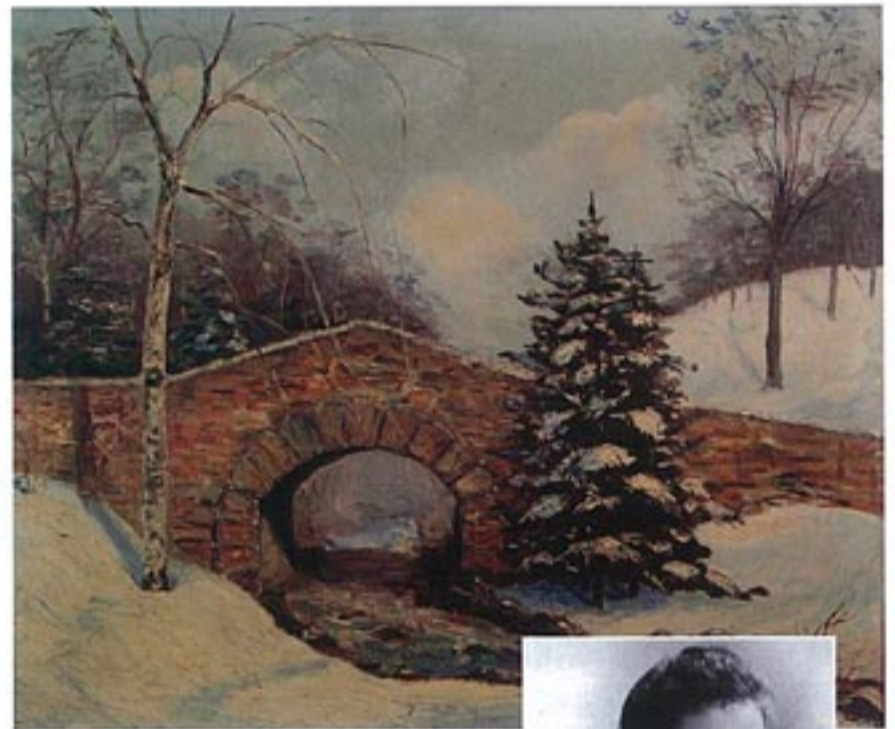
Painting

The beauty of the Hudson Valley that inspired Leo to become an avid yachtsman may have also encouraged Celine to paint. She studied with Hobart Nichols, a member of the Bronxville Art Colony, and she joined the Yonkers Art Association. In 1924 she exhibited in the Association's annual show, which was also the opening event for the new Yonkers Museum of Science and Arts, now named the Hudson River Museum. Celine showed in group exhibitions throughout the 1930s.

In 1936 Celine Baekeland donated one of her paintings to the Hudson River Museum—a scene of a stone footbridge built as part of the Bronx River Parkway Reservation. Seventy years later the painting was featured by the Museum in the book that accompanied its exhibition *Westchester: The American Suburb*. The picturesque structure can still be seen along the parkway in White Plains, just north of the County Center exit.

Community

Leo Baekeland, awarded many honors, served as president of the American Chemical Society and received over 100 patents. Yet he often walked Downtown Yonkers, talking to passersby, seeking kinship with the city's people. He drove one of the first cars on Yonkers roads and docked his boat in a marina just below Warburton Avenue. Outside her life as a wife, mother, and artist, Celine Baekeland was a humanitarian and women's rights activist. She co-founded Prospect Settlement House in Yonkers, begun in 1908 as an after-school arts program for children of working mothers. In 1913 the couple traveled to Washington, D.C. for a women's suffrage march. She distributed literature at the polls, registered voters, and marched in a parade.



SNUG ROCK, HARMONY PARK,
RESIDENCE OF DR. LEO BAEKELAND.

TOP LEFT The Baekelands at Snug Rock, Yonkers, New York. Left, Celine, Nina (b. 1896), George (b. 1895), and Leo. Carl B. Kaufman. *Grand Duke, Wizard, and Bohemian, A Biographical Profile of Leo Hendrik Baekeland (1863 – 1944)*, 1968

ABOVE Celine Baekeland. *January in Westchester*, c. 1935. Oil on canvas. Collection of the Hudson River Museum

Celine Swarts Baekeland, 1889

Snug Rock, the home of Mr. and Mrs. Leo Baekeland, Robert Lane in Harmony Park. *Yonkers Illustrated*, 1902