



Perfume Bottle Quarterly

Published Exclusively for Members of the International Perfume Bottle Association

Volume XXIII • Number 4 • Summer 2010



International Perfume
Bottle Association
2010 Annual Convention
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The Steuben Perfumes of Frederick Carder by Bonnie Salzman

Steuben Glass Works was created in 1903 in Corning, New York, and named after the county in which Corning is located – Steuben County (pronounced stu – ‘ben). The county was named after a German general who fought on the American side in the American Revolutionary war.

Steuben Glass Works was created by T.G. Hawkes, who served as President and majority stockholder, and Frederick Carder, a newcomer from England, who served as the company CEO and minority stockholder. The company was formed primarily to make blanks for the cutting shops in Corning.

It is very important to know a little bit about Mr. Carder to understand more about Steuben Glass. Carder was born in 1863 in Staffordshire, England. He became fascinated with glass at age 16 when he met John Northwood, who had just completed a copy of the famous Portland Vase. Northwood was one of the most talented cameo glass carvers in all of Europe. He and Carder became fast friends, and Northwood taught Carder a great deal about glass.

At the age of 17, Carder was hired as a designer and chemist by Stevens & Williams, the famous English glass manufacturer. Shortly after, Northwood became art director there, and together, he and Carder introduced colored glass along with new designs and new decorating techniques.

Carder remained at Stevens & Williams for 23 years before coming to the United States. Carder's designs at this time used both heavy cutting and intricate engraving techniques, which Stevens & Williams was famous for.

In 1903, at the age of 40, Carder visited America, and specifically Corning Glass Works, with the intent to

report on glassmaking. It was during his trip to America that Carder met T.G. Hawkes, president of a successful glass decorating firm in Corning since 1880. While in England, Carder had sold some blanks to Hawkes, but Hawkes was interested in making his own glass instead of buying from others. Hawkes persuaded Carder to move to the United States and start a factory in Corning.

And so, in late 1903, Carder relocated his family to Corning, set up the factory, and within 3 months time, was producing crystal glass “blanks” for the Hawkes factory to decorate. The company fulfilled the primary purpose Hawkes had for persuading Carder to create Steuben Glass Works, as Hawkes business volume required enough blanks to ensure success of the Steuben venture.

Mr. Carder was ambitious and his creative talents demanded greater expression. Within a year, Carder started producing his own artistic glassware. During the next 3 decades, Carder was Steuben's guiding genius, designing the glass and its decorations, devising the batch formulas, supervising all the production and selling the finished glass.

In addition to supplying blanks to Hawkes, Carder also supplied blanks to several other manufacturers, including DeVilbiss.

A number of silver firms were also supplied blanks, including the Alvin Silver Company.

Steuben factory records show an amazing total of over 7,700 varieties of vases, bowls, goblets, candlesticks, and dozens of other decorative and useful shapes which Carder designed for sale from 1903 through 1932. In addition, almost 600 designs were made as special orders for wealthy customers and manufacturers. Options available to Steuben's customers were designed to suit every modern woman's vanity needs.

Most of Steuben's output was sold by traveling representatives to leading department stores such as Altman's and Bergdorf Goodman in New York, Marshall Fields in Chicago and Gumps in San Francisco. All glassware was also available at the Steuben showroom in Corning.

At its most



Bonnie Salzman

Day
2

April
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16

basic, Steuben was art glass. Each piece designed by Carder and created at the glass furnaces was hand blown. If molds or casting was used, it was only to assist in developing a certain shape, or a portion of a piece, not the whole piece.

Aurene



The beginning of the Twentieth Century was an age of great elegance and refinement. Often, historians refer to this period as the gilded age. One of the areas in which that elegance was shown was on milady's vanity table. Carder had long catered to the needs of the lady of the house – first at Stevens & Williams using cut glass, cameo glass and satin glass, and then at Steuben.

Gold aurene, the first of Carder's now well-known Steuben creations, was inspired by the shimmering iridescence of Roman glass made from the 1st to 11th Centuries, AD. Carder created the name "Aurene" from the Latin word for gold – aurum – and the Middle English form of "sheen." Aurene has an ability to capture light and send it back in fiery shades of blue, green, yellow and red.

Gold Aurene was patented in 1904, and Blue Aurene appeared the following year. The iridescence of both Aurenes was produced by spraying the glass "at the fire" with an iron chloride spray. Blue Aurene was made by adding cobalt oxide to the Gold Aurene batch. Aurene was produced from 1904 through 1933. It took Carder a few years of experimentation to achieve this brilliant metallic looking finish.

Although Carder felt that his Aurenes were so beautiful that they needed no additional decoration, Carder did develop some decorated Aurene pieces, which are highly prized and sell for top dollar in the retail market. In addition to gold and blue, Carder developed green, brown and red decorated Aurenes, adorned with millefiori flowers, leaf and vine trailings, or hooked feathering decorations. Most decorated aurene is found in vases.



Verre de Soie

Verre de Soie was developed in 1905 and continued in production until the early 1930s. This glass is actually crystal glass sprayed "at the fire" with stannous chloride to give it a milky iridescence. Verre de Soie literally means "glass of silk" and this is both the appearance and the feel of this glass. The soft iridescence of this glass changes with the light. Carder liked to mix colors and decoration with verre de soie, because, just like a black sweater, it went with everything.



Calcite

Calcite was developed in 1915 and named for the mineral it resembled. It was developed primarily for light fixtures, but was popular as a lining for gold aurene items. Calcite has a white



tone with a warm, ivory translucency. This stunning bottle has gold aurene reeding marvered into the calcite body. A marver is a steel work surface used by the gaffer to roll the parison, or gather of molten glass.

Colored Transparent Glass

There are 134 colors listed in Paul Gardner's book on Carder Steuben glass. Since that time, researchers have identified quite a few more, many of which may just be variants in the chemical composition of the glass batch.

Some of these colors, pomona green, bristol yellow, and celeste blue, are fairly common finds in perfume bottles.

An interesting and difficult color to make is Gold Ruby, which is a deep pink color made by adding 22-karat gold in solution to the batch. Gold Ruby most often was used as a casing over crystal or alabaster glass, the thin casing resulting in a very beautiful pink color.

Selenium Ruby is a rich, blood red, sometimes shading to almost a garnet color in heavier pieces. This was made by adding cadmium selenide and zinc sulfide to the glass batch.



Cut and Engraved Glass

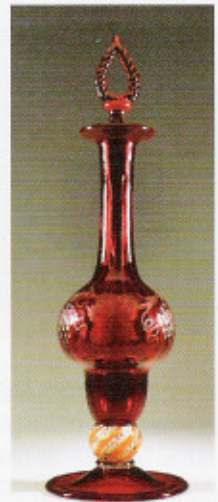
The Steuben cutting and engraving shop was located on the top floor of the factory, and operated continuously during Carder's management.

Most engraved designs were done by copper wheel engraving, executed by artisans who worked in shops in their homes. These men would come to the Steuben factory, pick up the blanks and drawings of patterns Carder had designed, and carry them home. They then returned the pieces upon completion.

Most engraved pieces were special orders or monograms – only a few standard engraved patterns were carried in stock. It is thought that Carder designed all of the hundreds of engraved patterns listed in the factory records.

Generally, cut or engraved pieces that are unsigned or marked "Steuben" were cut or engraved by Steuben employees or contractors. Blanks sold to Hawkes, DeVilbiss and other factories for decoration are not marked Steuben.

An exceedingly rare and highly sought after perfume is the Crown cologne bottle, made in the 1920's. It demonstrates so many of Carder's skills - design, use of color, skill of the gaffer, cutting and engraving. After the amber inner bottle and base are blown, the green arches and neck are added. The bottle is topped off with a Maltese cross stopper and long dauber, as well



as the leaf-like engraving on the green arches. The Crown cologne is similar to a cut glass design that was executed by Stevens & Williams at the time Carder was there, made for Queen Victoria's diamond jubilee in 1897. Carder's work at Stevens & Williams clearly influenced his designs for Steuben.



Opalescent glass

Inspired by the opal gemstones, straw opal usually imitated the cloudy phosphorescence of a fire opal. Opalescence was developed at the fire and was dependent on the bone ash (calcium phosphate) contained in the glass batch. It was created by pushing the molten gather of glass into an iron mold and then directing cool air onto the surface as it was revolved by the gaffer. This caused the ribs in the design to be cooled, while the lower areas stayed hot, and after reheating, gave

an opalescent design on a clear background.



Cintra

For centuries, glassmakers have obtained many pleasing effects by combining powdered glass, mica, gold and silver leaf, and other materials between layers of molten glass. Cintra was produced by rolling the partly inflated gather of crystal hot glass over powdered glass. Usually, a second gather of

crystal was added to enclose the colored particles which remained suspended in the clear glass casing. Cintra pieces may have very small bubbles or none at all.

Decorations

Carder experimented with many types of decorations, most of which were done "at the fire." This means that most of the decoration is added when the bottle is being made at the furnace, and not added later.

Mica-flecked decoration was accomplished by picking up pulverized mica flakes from the marver on the hot gather of glass, and covering them with another layer of glass before the whole mass was worked into the desired form.

Threading and reeding are techniques of decorating glass pieces with applied threads, and dates from Egyptian times. Three different techniques were used: (1) Threading - threads were applied close together in a regular spiral by machine. Note the beautiful engraved design over the machine threading. This piece is very early, likely around 1905.

(2) Reeded - threads are



applied irregularly by the gaffer. This type of reeding sits on top of the glass, and is subject to breakage and loss.

(3) Random reeded - random reeding applied by the gaffer, and marvered into the piece, making the piece nearly smooth to the touch.

Carder was also influenced by Venetian glass. This is demonstrated in numerous types of flower stopper designs. The flowers may point up or down, often exposing a pistil inside or seeded center.

Other types of decorations include twisted stems and finials, rings, prunts, delicate handles and unusual contrasting colors.

WWI

World War I put an end to Steuben as an independent factory. Late in 1917, the US government declared Steuben as a non-essential industry. Raw materials to make glass were restricted, and what was made were utilitarian pieces, like light shades. Carder faced shutting down, or selling the factory to Corning Glass Works. He chose to sell, and in 1918 Steuben Glass Works became the Steuben Division of Corning Glass Works.

After the war, in the 1920s, Carder was reinvigorated and produced new designs, colors, and complicated techniques.

Jades

Produced in the mid-1920s, the "jades" as they have become known, are made with at least two layers of glass. A colored transparent glass is either layered on top of alabaster, as in the case of Rosaline (a pink colored jade) and green jade.

Three layers of glass were necessary to make light blue jade - two layers of blue and an inner layer of white. Light blue jade is often seen with flint white, as this brighter white seems to complement the intensity of the light blue jade color. Carder also made a plum jade, although I have never seen this color in a perfume. Finally, a yellow jade was also produced. Carder often became angry when asked about this color, as he never felt that he achieved the vibrant yellow he desired in this glass. Consequently, very little was made and it is quite rare.

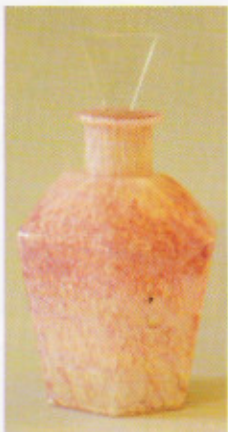


Cluthra

While Carder made fine transparent glass free from bubbles, he also appreciated the use of bubbles to enhance his glass. Cluthra was created. The bubbles are due to a chemical



mixed with the powdered glass on the marver. The chemical produced bubbles in the powdered glass when exposed to the heat of the hot glass. A layer of crystal glass gathered over the bubbly powdered glass at just the right moment



locked the color and bubbles forever in a delightful suspension. These bottles were offered in several colors, blue, rose, black and green, and often as parts of dresser sets.

Orientalals

The early to mid 1920s were an extremely creative period for Carder. More unique and rare bottles, in terms of shape, color and glass process were produced. Oriental poppy (pinkish red), oriental jade and oriental orchid were created. These colors contain iridescent striations in the design, which usually matches the stopper or foot of the bottle.

Carder drew on his artistic abilities and often used more than one glass technique to create a perfume bottle. Optic ribbing, engraving, a cintra ball connector and stopper, and unique color combinations were all used in large decorative perfumes.



proportioned, rooted in the classical tradition of Carder's artistic education. Carder often carried with him a small, pocket sized drawing book. When he saw something that inspired him, he would take out the book and make a sketch. Many of these drawing books can be seen at the Rakow Library in Corning, and they contain hundreds of pictures of human figures, animals, flowers and other plants, architectural elements and shapes. Carder drew on elements found in nature to create his many designs.



Paperweight Cognoses

1925 saw the beginning of the Art Deco period. It was during these years that paperweight cognoses were created. Paperweight cognoses are so called because of their size as well as their weight. Many have a Cintra center surrounded by colored threadings or controlled bubbles or both, cased in heavy crystal, cut to create a spectacular optical effect. Very few paperweight cognoses were produced, each varying in color, decoration and faceting. I have never seen two that are alike. Because of their scarcity and magnificent splendor, paperweight cognoses are sought after by both perfume bottle and Steuben collectors alike.



Shapes

There are close to 300 line drawings attributable to perfume bottles and cognoses, cosmetic jars and powder boxes. Most pieces make a mature statement of design in form, decoration and function. Simple, yet elegant designs are well

Marks

No discussion of Steuben would be complete without a word about marks. Most aurene is marked. Often, it contains a shape number and the word "AURENE" written in block letters on the foot of the bottle.

Many pieces, particularly the transparent colors, are marked with an acid etch fleur-de-lis. This mark can be difficult to find, but usually found in the pontil or on the rim of the foot.

Occasionally, one might be lucky to find a paper label. This is usually gold or silver foil, triangular in shape with the angles cut. Much of Steuben is not marked, particularly verre de soie pieces. If interested in this glass, it is best

to get yourself educated by reading, and by looking at and touching real pieces.



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The End of an Era

In the late 1920s, sales of Steuben glass declined. The 1929 stock market crash and the Great Depression, combined with other factors, finally brought an end to Carder's control of Steuben. In 1932, Carder was relieved of his duties as manager of the Steuben Division and, as he put it, was "kicked upstairs" to Art Director of Corning Glass Works. That same year, Arthur Houghton, Jr., great-grandson of the founder of Corning Glass Works, became president of Steuben. About the same time, Corning introduced a new type of optical-quality lead glass with unusual clarity and brilliance – a glass which is still produced today.

From 1932 and for the next 3 decades, Carder engaged in studio work, perfecting a glass casting process, creating relief panels and other architectural elements, and developing a number of other Studio pieces. For a Steuben collector, these are the rare and highly desired pieces, and are drastically different from the Steuben Glass Works prior to this time.

It is amazing that Mr. Carder's incredible artistic and technical achievements spanned the decline of the Victorian era, the rise and fall of Art Nouveau and Art Deco, the disruptions of two World Wars, and profound changes in economic conditions and life styles, first in his native England and then in America. His contributions to glass making will forever be admired.

A special thanks to Craig Farnsworth for taking all the photographs.

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