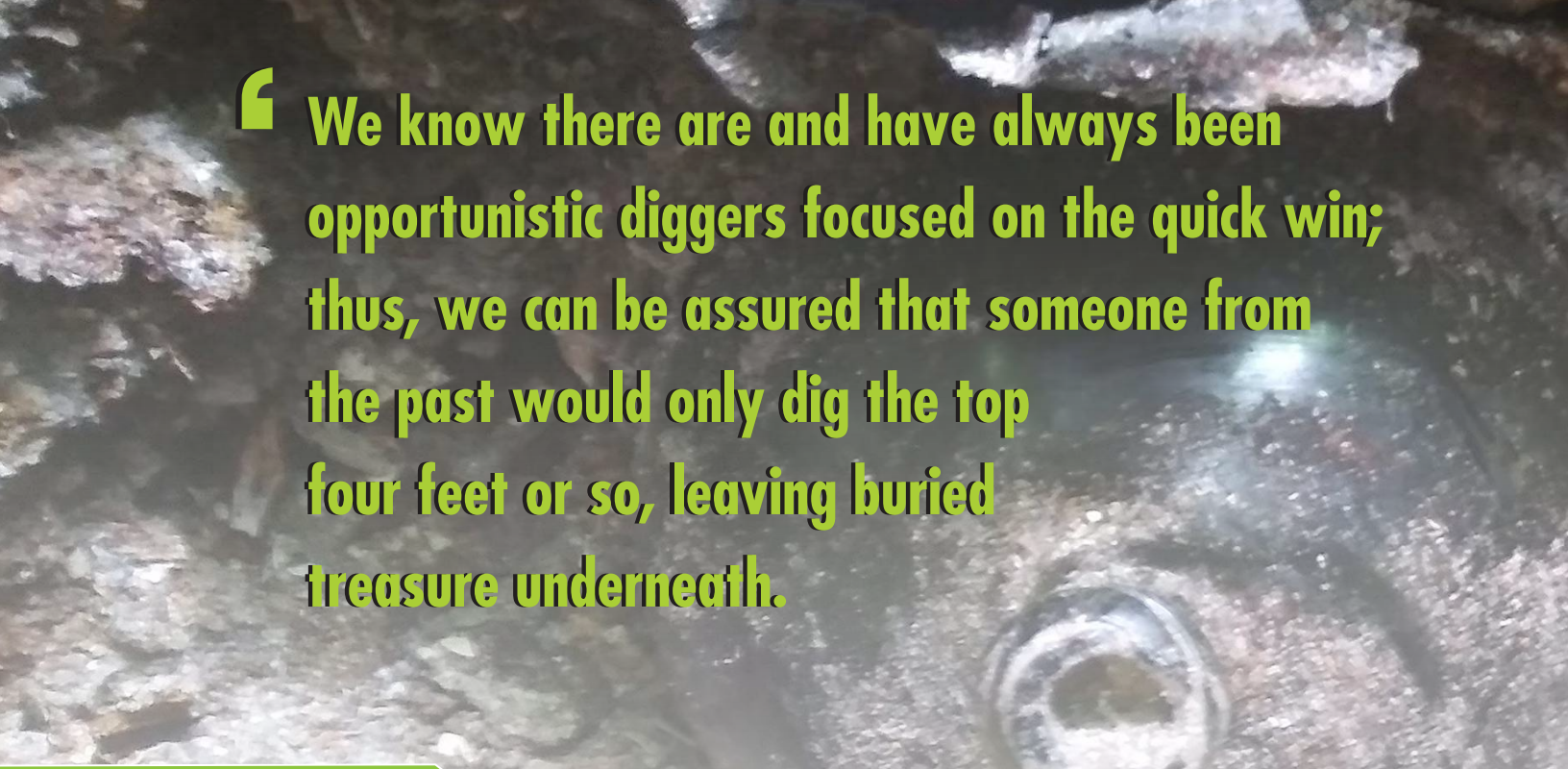

> We know there are and have always been opportunistic diggers focused on the quick win; thus, we can be assured that someone from the past would only dig the top four feet or so, leaving buried treasure underneath.

[background image] The large and very old free-blown demijohn with a peculiar, chipped lip is beginning to look like it just might be whole!

Dame Jeanne

By John Savastio

I started digging and collecting antique bottles during the summer of 1970 in Newport News, Virginia when I was just nine years old. I am now 60, and my passion for the hobby is as strong as ever, especially for that moment of discovery when a fascinating relic from a long bygone era is first uncovered.

There were many finds from 2021 worthy of a gripping narrative chronicled in the pages of the new, bigger, and better *Antique Bottle and Glass Collector* magazine. For this story, I will focus on a dig that stood out due to the scarcity and diverse nature of what was pulled out of the late Victorian landfill I was digging.

Over the years, I've developed a credo about digging my holes as deep and thoroughly as possible. The seed of this doctrine was implanted in my consciousness by Ross Becker, an archaeologist and bottle digger friend who was very influential in my digging approach from an early age. This rationale was further validated during times of desperation when I had nowhere to dig other than hard-hit dumps with no undug spots on the surface.

This challenging dilemma forces intrepid diggers like me to dig a series of narrow test pits up to four to six feet deep until we find the paydirt, undug ash. We know there are and have always been opportunistic diggers focused on the quick win; thus, we can be assured that someone from the past would only dig the top four feet or so, leaving buried treasure underneath.

This principle had just been substantiated for me yet again, in mid-April, when I dug a trench in a legendary local 1860s-1890s midden. Fortunately for me, a far less than thorough digger had left the bottom two feet unscathed from decades past. That day, I had a great time finding local Hutchinson sodas, blob beers, cone inks, and more—but most importantly, a spectacular quart-sized 1870s stoneware bottle, with D. W. DeFreest impressed into the shoulder and a nice big blue cobalt slip "L" on the other side. **[See Figs. 1 & 2]**

Figure 2: Ah hah! It's the scarcer "L" for Lemon Beer. Only the second "L" I've dug in 51 years!

and the Master Ink

Figure 1: Ah that moment of discovery. I knew I had a DeFreest–the only question was: is it an "L" or an "R?"

The Dig

The story of this dig started later in the season with a fresh hole mid-morning on Saturday, September 11. As I knew the virgin ash in this area would go about nine feet deep, I must dig every inch of it to the bottom (based on my dig-every-bit-of-ash-dog-ma mentioned above). I had decided to mine a larger-sized hole, around 7 x 7 feet, to have plenty of room to maneuver and shovel out the backfill as I got deeper and mitigate the consequences of cave-ins. I, therefore, knew this would be a two-day affair, giving me plenty of time to complete this project.

At 77 degrees and cloudy, it was a fairly comfortable day to dig. Plenty of bottles and artifacts came out, including a large "Eastman Rochester" bottle used by early home photo developers. It would be intriguing to see the pictures of turn-of-the-century life when the contents of this bottle had been used to develop film. There was also a "K. HEINRICH'S ALBANY NY" Hutchinson, a mid-sized China doll head with both eyes intact, and a tiny, oval cobalt "BP" bottle.

This day, the most exciting find was a bisque elephant coin bank, four ¾ inches long and three ¾ inches in height. The only marking is "1872," incised along the base, and it was in a quite excellent condition with the saddle still a vivid red. **[See Fig 3]** It may be a figurine of the world-famous Jumbo the Elephant, who would have been 12 years old at the time, and on display in the London Zoo. It wasn't until 1882 that P.T. Barnum purchased

Figure 3: The bisque elephant. Is it Jumbo? 1872 date debossed on base.

Jumbo for exhibition in the United States. My searches have yielded no information on this artifact, and I'd be very interested in any readers who have information on it. It now resides on a bedroom shelf belonging to my daughter, Christina, a passionate elephant aficionado. My dig ended at the four-foot level, and I was energized at the thought of the artifacts waiting for me upon my return in the bottom four-five feet of undisturbed ash.

My original thinking was I would return the following Saturday. Still, my anticipation was such that I worked extra hours Monday through Thursday so that my calendar would be cleared to take the day off to dig on Friday, September 17. With Covid work restrictions still in place, the busy week I spent working from home flew by. Before I knew it, it was Friday morning, and I was back in my untouched ash pit, four feet down with shovel in hand, and excited at the prospects of what lay beneath my feet.

Experience has demonstrated to me time and again that a valuable bottle may be anywhere; thus, despite my impatient instincts to dig as fast as I can, the shovel must be pushed into the ground with a measured pace. This procedure allows me to instantly stop the moment it comes in contact with a hard, fragile object that has the tactile characteristics of glass. This sensation is also typically accompanied by a distinctive "clink" sound associated only with glass or vitreous ceramics. I'm also careful to observe each shovelful of ash as I toss it out of the hole, and it slides off the spade and sprays the ground. More often than not, it's just ash, little chunks of coal, scraps of iron, and the shells from someone's seafood dinner many generations ago. However, I will occasionally observe a lovely cone ink, doll head, colored marble, or small medicine bottle hiding in the middle of that small load of ash, causing me to scurry out of the hole to examine my new-found treasure.

That said, my first significant discovery of this day did not occur through either of these circumstances.

Just 10 minutes into my dig, I felt a familiar moderate resistance as my shovel pried up an object that had the signature of a large bottle. To my delight, my hopes were exceeded when I instantly recognized the bottle that rolled off the spade and onto the bottom of the pit in front of me as a master ink! Again, it's the exhilarating rush of excitement when an exceptional artifact is first revealed, more than all the other joys and gratifications of collecting antique bottles, that makes the hobby so addictive.

Figure 4: The citron "Carter's Made In U.S.A., Feb 14 '99 master ink fresh out of the ground.

The very first thing that struck me, as the bottle lay against the light gray of the ashy floor of my pit, was its odd light yellow-green color. Dropping to my knees, I threw off my gloves and picked up the exalted object for close examination. The first priority was to read the embossing to determine what I had found. Thinking back to other master inks I have dug, I eagerly but carefully wiped the ash from the sides of the bottle and was stunned and disappointed that it appeared to be unembossed! How could that be? I continued to spin the bottle around to no avail. It was blank! It finally dawned on me to check the shoulder, which, to my great satisfaction, was boldly embossed "CARTER'S MADE IN U.S.A." and on the base: "PAT. FEBRUARY 14 – 99." **[See Fig 4]** Next, check the condition. Pinching and twisting the top between my thumb and forefinger, I detected no chips, and similar scrutiny of the base indicated no damage. I breathed a sigh of relief as this critical test was passed. Lastly, holding the bottle up to the diffused light of the cloudy sky, the bottle's unusual citron hue was confirmed. I knew I had something special in my hands. Only briefly savoring the moment, I took a quick, and unfortunately not-too-clear photo with my old, (now replaced) LG40 Android.

Energized, I continued to dig with enthusiasm and high hopes. The following two hours were, unfortunately, remarkably dull. Very few artifacts were found, and what did come out was lackluster. My experience and expectations are that the bottles tend to get better as you go deeper, and the best finds often come towards the dig's end. I smirked at the irony that my best bottle for the day might have been found just 10 minutes into the dig. My self-pity was abruptly set aside around noon when the base of a medium-sized gray stoneware crock or jug was exposed at around six feet deep.

Despite my mature digging methodology honed over five decades that has taught me not to get carried away with high hopes when just a small portion of an artifact is revealed, I began to think this might be another handled stoneware container with cobalt slip like the "P. DONOHUE / WATERFORD, N.Y." jug I dug the December before. [**See** *The Covid Bottles of 2020, Antique Bottle & Glass Collector,* April 2021]

Quickly down on my hands and knees, I gingerly chipped away at the ash surrounding the object with my short probe. To my disappointment, I saw no telltale signs of blue slip glaze, and it was soon apparent that I had a crock. Once enough of the lip was uncovered, I carefully wedged it out of the earth. While not decorated with a primitive blue design or the block letters of a local proprietor, it was still an attractive 1870s-90s stoneware crock/jar in a nice light gray with a shiny salt-glaze. And it looks good on my high kitchen shelf side by side with the Donohue jug mentioned previously. **[See Fig 5]**

Figure 5: The late 1800s stoneware crock dug on September 17, 2021 side by side with the "P. Donohue Waterford N.Y." jug dug December 12, 2020 (and memorialized in an earlier digging story).

This excitement was followed by another two hours of relatively tedious drudgery, with finds of only modest quality unearthed. Without the distraction of pausing to check out significant relics, my focus was on getting deep by 2 p.m. I had broached the eight-foot level. To conserve energy at this depth, I bend my knees, then stand up abruptly as I toss each shovelful of ash out of the hole, providing the extra force I need to ensure the debris does not trickle back into the hole and over my head (which, to be honest, really pisses me off!) At about the eight-1/2 foot level, the top of a peculiar large green bottle was exposed. What set this top apart was that it appeared to be chipped, and it also had a ring of applied glass around it. Having not heard or felt any crunch as the bottle was revealed to me, I was at least confident that I had not damaged it. As I cautiously chipped away at the ash around the piece, it became apparent that this was a huge bottle that looked like a demijohn. **[See Fig 6]**

My initial reaction was that there was no way a bottle of this size could have survived the rigors of being chucked into a dump and the temptations of a turn-of-the-century bratty kid smashing such an enticingly large vessel. I was encouraged, however, to find that the bottle was very firmly wedged in the earth. Upon closer inspection, I discovered that the neck of the bottle was corked, and it appeared to be full of liquid! This discovery was the decisive proof that the bottle must be whole. I was elated!

"My initial reaction was that there was no way a bottle of this size could have survived the rigors of being chucked into a dump and the temptations of a turn-of-the-century bratty kid smashing such an enticingly large vessel.

It was now a matter of patience as I carefully chipped away at the firm ash enveloping the flagon. I periodically grabbed the neck and lightly pulled it to assess if it was close to coming loose. But I was careful not to wedge it out for fear of scratching it against any sharp, unseen object it may be nestled up against. After several more minutes that seemed like an eternity, the massive bottle

Figure 6: The large and very old free-blown demijohn with a peculiar, chipped lip, is beginning to look like it just might be whole!

Figure 8: The Dame Jeanne is stunningly clean and shiny after 120+ years in the ground!

Figure 9: The Dame Jeanne's peculiar and distinctive snapped-off top and applied-ring lip.

Figure 10: Note the kick-up is not a pontil, and the flattened area along the base that may have resulted from the glassblowers laying the bottle on a table while the top was snapped off the blowpipe.

finally and gently fell free. Yes, as a large demijohn filled to the brim with a liquid. I assumed it was water as it was heavy. I later calculated the volume to be about 3.19 gallons, and the weight of the liquid and bottle combined was around 31 pounds. [**See Appendix**: Calculating the volume and weight of a bottle]

Figure 7: The demijohn fresh out of the ground with the sludgy remnants of its thick rope-like wicker still clinging to the bottle after 170 years. (and memorialized in an earlier digging story).

It may have been prudent, from a historical perspective, to leave the liquid in there and perhaps get an analysis of what it was, but I did not feel like hauling this ponderous burden the quarter-mile walk back to the car. Instead, I poked my short-probe through the mucky cork, turned the bottle upside down, and emptied its contents. I did not notice an odor, so I assume it was water.

I'd like to know why the person (or persons) who threw it out did not drain the water before they hauled it off to the dump—that is, why haul all that extra weight? At this point, I stood on my bucket on my tiptoes, and with arms stretched, I was able to place the bottle on the rim of my pit safely. In the picture, you can see a peculiar, murky, sludgy coating on the outside of the bottle. This was after I had wiped much of it off. It seemed to be the remnants of some sort of wicker covering. [**See Fig 7**]

Examining the bottle further, I noticed there was no seam, and with its bulbous form was free blown! Furthermore, it had a kick-up pontil and some big, elongated bubbles. This thing was ancient—possibly early-to-mid-1800s, so it was already quite old when thrown into the 1890s-1900 period ash and rubbish it was entombed in. The large demijohn was the last significant find of the day. I scraped the ash off the very bottom of my chasm to make damn sure I had not missed anything.

Again, some great finds over the years have been discovered at this transition zone between the native surface and the base layer of the dump.

I then chipped away at the sides and eventually filled the hole in. It's always a struggle to fill the hole when you're exhausted after a hard dig, but it's the right thing to do. For one, the ash I dug covered an undug area that I planned to excavate later. Second, I sometimes find bottles I missed when throwing ash out of the hole, especially small ones. Third, and perhaps most importantly, it leaves a much more attractive site and a better environment for the natural shrubbery to grow back. Lastly, the property owner that abuts the dump and who lets me dig there is very appreciative that I do this and thus allows me to come back!

Dame Jeanne

I got home and cleaned the bottles the next day. I was thrilled with how virtually spotless both the Carter's master ink and the demijohn were. I was especially stunned at the almost pristine condition of the demijohn. **[See Fig 8]** How could this huge bottle have avoided being broken but survived with nary a scratch or mark on it? The only disturbing thing was the odd chipped lip that did not look quite right. **[See Fig 9]** I speculated that the wicker covering that had deteriorated into a sludge-like coating after more than a century in the ground had acted as a protective layer, preventing any scratching or staining of the outside, while the cork and water prevented any staining of the inside.

I alerted my friend, Gary Mercer, who has collected bottles for as long as I have, and he came over later that Saturday afternoon to inspect my finds. When I lamented to him about how beautiful the demijohn was other than the desecration to the lip, his immediate response was, "That top is NOT damaged!"

I was pleasantly stunned by his confident pronouncement and realized that this made sense. The sheared top above the applied ring did appear to be made by design rather than a random breakage after its manufacture. Gary said it was European, maybe German, and the tops on these free-blown demijohns were broken off the blowpipe as part of the bottle-making process. He said that's about all he knew, but he also thought the bottle was very old, possibly late 1700s.

With my busy job, my kids, and my lady friend, as well as time spent taking care of the house, playing tennis and of course digging as much as I could, I put the research of this extraordinary find off for several weeks. When I finally got around to Googling the bottle's characteristics, it yielded no leads. I next turned to Facebook and posted the bottle on the forum "*Early Glass for sale & show*." Soon, I had a response from Helena Von Drakenstein, a Facebook friend who had helped me in the past and seems to know a lot about everything in the world of antique bottles. Her response corroborated Gary's assertion that the bottle was in "as made" condition. Helena wrote,

"*These bottles are old, 1840-1860, and from the French Alsace, Dura area, or the Swiss Flühli municipality. Once upon a time, they were protected in rope/wicker and or cloth, and I have specimens in my collection that still have the original wicker covering. However, those that no longer have these coverings (like yours) allow us to see the true beauty of this free-blown glass.*

The glass is surprisingly thin and fragile. I have about ten of these from ½ gallon to 5 gallons, gathered at a period when it was still relatively affordable to ship without killing the bank account. It was not necessary to pontil these bottles as they were simply set down while still on the blowpipe before the lips were snapped off. I'm not sure if the milled lip ring was laid on just before or after the bottle was cracked off from the blowpipe. Other examples can be seen in Antique Glass Bottles–Their History and Evolution, 1500-1850 by Willy Van den Bossche, 2001."

I was incredibly thankful to Helena for these revelations, and I was also a bit surprised to hear the kick-up on my bottle was not, in fact, a pontil. Upon examining the base more closely after reading this, I discovered there is indeed no blowpipe scar or graphite residue. So, it's not a pontil, but just a kick-up. Moreover, Helena's comment that these free-blown Alsace / Swiss Flühli bottles *"were simply set down while still on the blowpipe before the lips were snapped off"* would account for the peculiar flat area on one side of the bottle. **[See Fig 10]** The story of the making of this bottle was starting to come together.

Figure 11: Dame Jeanne illustrating the thick rope-like wicker used on these bottles from page 130 of *Antique Glass Bottles–Their History and Evolution–1500-1850,* Willy Van den Bossche 2001.

I ordered Willy's book, but all I could find was one example on page 330, plate 273. **[See Fig 11]** With similar information to what Helena had provided, *"A French (Alsace and Jura area) or Swiss Flühli storage bottle. Circa 1840-1860. Original wicker protection. No pontil scar."* Two things stand out for me from this picture: 1) The extra thick rope-like wicker covering (that Helena has referenced)—I've never seen anything like it and 2) The top with the rough-severed edge and "milled lip ring," also mentioned in Helena's description. This milling, or pattern on the lip ring, seems to be standard but is unadorned on my bottle.

Helena also provided contact information for two experts on these early-mid-19th century European free-blown demijohns: Willy Van Den Bossche (the book author) and Jean C. Jetzer (note that this is the male French name, with the "J" pronounced with the SZ sound as in "Jacques"). I promptly wrote an email to both Willy and Jean seeking more information, and Jean quickly responded with several emails, which I have summarized below:

"These bottles were made in the Wildenstein Glasshouse, a factory that existed from 1698 to 1883. Wildenstein, in north-eastern France, is a small village (population 218) three kilometers from my birthplace in Alsace. We had some of these bottles in the cellar of my old house in France, and we used them to store schnapps. These large free-blown bottles, made at the French Wildenstein Glasshouse, are called bombonne (carboy or demijohn) but are also popularly known as Dame Jeanne (or Lady Joan in English). The legend says that the name Jeanne was given by one of the factory owners because his wife's name was Jeanne, and she, like the bottles, was nice and round."

"The term 'broken off' is not accurate to describe the rough tops resulting from the techniques used in their manufacture at Wildenstein. When the bombonne was attached to the blowpipe, another glassmaker attached a ring around the collar, using pliers to flatten it. This ring prevented the body of the bombonne from cracking when the glassmaker, with a sharp metal sabré-like

tool, severed the bombonne from the blowpipe with a dry blow between the end of the blowpipe and the ring. The top of the bombonne would thus be jagged and rough, and the glassmaker would then flatten the cap to reduce the sharp edge. In some cases, the neck would be polished."

"The bruin (brown) Dame Jeannes were made for a chemical factory that had started up in 1808 in the town of Thann, 25 km further down in the valley. The brown coloration protected the chemicals from the light. This same factory also handmade roof tile, which were full of air bubbles, that were first exhibited at the Paris International Exposition in 1849."

"I also included a 19th-century advertising card from Wildenstein. **[See Fig 12]** *Translated to English, it reads: Wildenstein Glassworks, Founded in 1698, Bottles of all kinds. Lady Jeannes. Roof tiles, Rods, etc., Kientzy, Griner & Dollander, Wildenstein By Wesserling. Haut-Rhin (Alsace).*

Figure 12: A 19th century advertising card from the Wildenstein Glassworks, founded in 1698, which manufactured bottles of all kinds, including Dame Jeannes.

After reading Jean's comments, Helena added this: *"Different lip finishes can be found. Your bottle is a snapped-off lip. Sheared lips are different as they are cut with shears (like scissors). Snapped off or burst off, either term is correct."*

Also, note that Dame is pronounced "daam" (the "e" is silent). Jeanne rhymes with ton, and the "J" is again pronounced with the SZ sound. Put it all together, with the "e" pronounced, and we have the etymology of the English word "demijohn."

Thank you, Helena and Jean, for all of this fascinating information about this remarkable bottle—his bombonne, this Dame Jeanne. I can only muse about the bottle's fascinating history with all this background.

It starts with it most likely being blown at the Wildenstein Glasshouse in northeast France between 1840 and 1860 by skilled craftsmen with their peculiar and unique method of finishing off the lip. Perhaps there, or at another site, weavers would have applied their unusual rope-like wicker covering. I guess that, unlike the bruin (brown) bombonnes from Wildenstein that were used for chemicals, my bottle may have held water from a renowned European spring that was shipped perhaps by an early steamer as a commercial product to the United States. It made its way into the Capital Region of upstate New York. After its original spring water was consumed, the owners re-purposed the heavily wickered container, perhaps refilling it at a local spring for home use. After being filled for the last time, maybe after a more convenient water source became available, the bottle was placed in the cellar, possibly for decades. When a basement cleaning was last done around 1895, the bottle was lugged into a wagon with coal ash and other scrap items.

With the cork so firmly entrenched in the neck, the homeowners did not bother to remove it. When they arrived at the dump, the coal ash surrounding the bottle and its thick rope-like wicker covering provided a gentle cushion as the wagon-load was jettisoned into the newly opened, massive landfill. The ash also covered the bottle just enough so that the local young ruffians who frequented the dump missed the opportunity to smash it. Over the next five to 10 years, another 10+ feet of ash and garbage were piled on, eventually settling into a roughly 9-foot layer after the dump was abandoned and became wooded.

As time rolled on, Teddy Roosevelt became president, the *Titanic* sank, and the automobile became pervasive. Women gained the right to vote, prohibition hit, and there were two world wars and many assassinations. People landed on the moon, and much more history played out, including my birth in 1961 and my conversion to a bottle-digger in 1970. Ultimately, our destinies, the Dame Jeanne's and mine, were intertwined on that fateful day in September 2021, when my shovel uncovered it, and the bottle was exposed to the light of day for the first time after 125 years in the ground.

I'll never know the long lineage of craftsmen, proprietors, shippers, consumers, and everyday working people like me that this Dame Jeanne has encountered. Still, I am fortunate and appreciative to be the current guardian of this extraordinary artifact.

And the Master Ink

Concurrent with my research into the Dame Jeanne was my exploration of the background of the very scarce citron Carter's master ink, found hours earlier on the same day and four feet above it. Following up on the success of the Dame Jeanne research, I once again turned to Facebook and my go-to bottle expert, Helena Von Drakenstein. Unfortunately, my post on the Facebook forum, "*World of Antique Inks*," turned up little information (just a lot of likes). Helena, on the other hand, once more put me in touch with an expert on the subject, Daniel Baldwin, who provided the following summary:

Figure 13: This amber, labeled Carter's master ink, is from the same era as the citron mold, both with arabesque detail along the perimeter of the base (Daniel Baldwin collection).

"That's a great color! The arabesque design around the base of these Carter's master inks was available from around 1890 into the early 1900s."

This bottle has two variants: those from 1899 onwards with the "PAT. FEBRUARY 14 – 99" base embossing and those from before without the patent date.

Both molds are scarce but available in a wide range of colors. Collectors consider these bottles quite desirable, especially in an unusual color like citron.

I included pictures of a pre-1899 labeled version of the bottle in this mold in amber **[See Fig 13]**, along with my non-labeled Carter's masters. **[See Fig 14]**

These Carter's masters with the arabesque design and the February 14, 99 patent date also come in ABM molds. Furthermore, there are February 14, 99 Carter's masters without the arabesque embossing. If your bottle were on my table at a show, I would price it around $385.

To my pleasant surprise, an almost identical citron Carter's master coincidentally was for sale on eBay while writing this article. **[See Fig 15]** The mold is the same, with striking similarities in color and large bubbles between the two bottles. **[See Fig 16]**

Figure 14: Carter's master inks come in a variety of colors, but a citron example is missing from this display (Daniel Baldwin collection).

Figure 15: My dug citron Carter's master ink on the left with a snowy background highlighting its color, and the eBay twin on the right. The latter sold in March 2022. Note the similarities in mold and color.

It is unusual that a glasshouse making commercial bottles at this late a date at the end of the hand-blown era would produce such a bubbly vat of glass. I believe these distinctive qualities and the bottles' scarcity affirm these citron Carter's master inks were from a singular one-time batch.

A prolific company like Carter's, with a high demand for bottles, would likely order from multiple glasshouses. This, in turn, would limit Carter's ability to enforce consistency and quality control. This particular instance resulted in this odd, one-off delivery of bubbly, citron master ink bottles. From the photo of Daniel's master collection **[See Fig 14]**, we see that these Carter's typically came in aqua, green, amber shades, and colorless. The citron variant, missing here, is not as common.

The color citron is named after the fruit of the same name. **[See Fig 17]** Citron is described as both greenish-yellow and a blend of

Figure 16: The same two bottles side by side, this time showing the large bubbles in both, unusual for bottles of this era but evidence they're from the same batch.

Figure 20: Arabesque detail adorns the perimeter of the base of the Carter's citron master ink.

orange and green. Are there any glass experts among the readers of this magazine who can tell us precisely what elements go into a batch of glass to color it citron, as opposed to aqua, for example? My research indicates naturally occurring iron in the sand used to make glass can result in aqua shades. Yellow can be made by adding lead or cadmium sulfide, while greens can be produced by adding iron oxide.

Figure 17: The citron fruit, from whence comes the color.

I have seen several other examples of what appear to be one-off runs of citron from other popular (typically aqua glass) products in this late 1800s to early 1900s period, including Dr. Kilmer's, Hutchinsons, cone inks, and beers. I am also depicting an example of an 1870s standard aqua Budweiser next to a far scarcer citron example. **[See Fig 18]**

What was happening in this era of the American glass industry that would account for these seemingly haphazard singular runs of citron batches? Were there forces in the industry, perhaps influenced by the providers of the materials needed to make citron glass, looking to replace standard aquamarine glass? Maybe there were sporadic shortages of the ingredients that went into coloring glass. Still, I can find no significant war, political, or economic influences that would have had this type of impact during this time. I would love to hear from a reader who knows the answers to these questions.

Figure 18: Scarce citron 1870s Budweiser next to a standard aqua example (Tim Henson collection).

Per *Wikipedia*, the Carter's Ink Company was an American manufacturer of ink and related products, based first in Boston and later in Cambridge, MA, and was at one time the largest ink manufacturer in the world. Founded in 1858, the company lasted until 1975, when it was sold to the Dennison Manufacturing Co. During the FEB 14 '99 master ink mold era, the company was in its heyday. A 1901 *Harper's* magazine ad, when the company was at its peak, illustrates a bookkeeper with Carter's master ink bottles on the shelf, exemplifying the era of my dug citron bottle. **[See Fig 19]**

The 1899 Valentine's Day patent date, at the very end of the greatest century of American glassmaking is, for me, another appealing feature of this bottle. Was this, in any way, a marketing tactic by Carter's? It does not seem so, as I can find nothing in the company's marketing or labels to indicate this. It appears that February 14, 1899, a Tuesday, was just another business day to patent a bottle, and the Valentine's Day date is just an interesting coincidence.

I'm also fond of the "Arabesque" design that graces the perimeter of the base of the bottle. **[See Fig 20]** Per *Wikipedia*: "Arabesque is a form of artistic decoration consisting of surface decorations based on rhythmic linear patterns of scrolling, interlacing foliage, and tendrils. Some Western arabesques derive from Islamic art, but others are closely based on ancient Roman decorations." Who knows what compelled the turn-of-the-century Carter's master ink designers to add this lavish embellishment, but I thank them for enhancing my bottle collection just a tidbit more with their good taste.

Finally, "MADE IN U.S.A." embossed on any antique bottle is another element that enhances its appeal. It would seem obvious to consumers that the product, headquartered in Cambridge, MA, was made in this country. It was completely unnecessary information for Carter's to take the trouble to add this information to the mold. Regardless, perhaps as an act of patriotism on the part of the company or as a marketing ploy to appeal to customers, the powers that be decided to include it. "MADE IN U.S.A." is not embossed on their pint master inks but is included on the base of their 1897 cone inks. Interestingly, Stafford's Ink, a fierce competitor of Carter's, also boldly stamped "MADE IN U.S.A." on their master inks. Did one company influence the other to do this, and, if so, which was first?

Incidentally, the citron Carter's master sold on eBay realized $114.82 ($98.69 sale price + 8% sales tax ($7.90) + 8.24 shipping). Not quite the price range Daniel (or I) anticipated, but perhaps it would do better at a big online auction. Regardless, the diverse and intriguing stories of the Dame Jeanne and the master ink, two bottles dug on a late summer day in 2021, made this an exhilarating experience I will never forget.

Figure 19: *Harper's* magazine ad for Carter's Ink 1901. Note the quart and half quart labeled master ink bottles on the shelves.

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Wikipedia: Arabesque

eBay sale from January 28—February 3, 2022

Appendix: (Calculating the volume and weight of a bottle): The Dame Jeanne is 16 inches tall. The body of the bottle is 13 ½ inches in height, and the base is 8 ½ inches wide. The volume of a bottle is determined using the formula: V = π r2 h. Thus pi (3.14) x radius (4.25) squared x height (13) = 737.311 cubic inches of volume. One cubic inch of volume = 0.554113 fluid ounces. 737.311 cubic inches x 0.554113 fluid ounces = 408.553 fluid ounces. One gallon = 128 ounces. 408.553 fluid ounces / 128 = 3.19 gallons. One gallon weighs 8.34 pounds x 3.19 = 26.6 pounds. The bottle is close to five pounds, so the total weight of the Dame Jeanne filled was around 31 pounds.