

Simple Science: Carbon dating is one of the most accurate scientific methods of determining whether a post-1955 whisky is genuine.

Something about the bottles didn't look quite right to Isabel Graham-Yooll. As auction director of London-based Whisky. Auction, she had been working in the wine and spirits industry for two decades and had developed an eye for suspicious-looking whiskies. "The

genuine ones are all the same," she says, paraphrasing Tolstoy. "The forged ones are always different." Some of the bottles she was getting from this new collector seemed to have closures that weren't right for the period; in others, the color of the whisky was slightly off. \(\bigcup \) "We said, 'Poor guy, someone is conning him. We need to warn him," she says. The client, however, seemed unconcerned and even invited Graham-Yooll and her colleagues to his flat in the north London neighborhood of Finchley to see his collection. When they arrived, they saw hundreds of bottles stacked around the apartment. And when the collector opened a Japanese whisky for them to try, it tasted suspiciously like an American bourbon. Then, one of Graham-Yooll's colleagues saw a bottle that he swore he recognized from a recent auction. Back in her office, Graham-Yooll began going through the bottles the collector had submitted, finding that many had been recently sold. "I started trolling the Internet and matching them up," she says. "That's the point at which we got the police interested."

When London Metropolitan police raided the flat in the early morning of February 2, 2017, they found not only boxes full of whisky but also hundreds of empty bottles, labels, capsules, and stoppers. "It was a mini domestic factory," says Graham-Yooll. Police charged the man with fraud, claiming he was buying empty bottles and filling them with cheap spirits to sell at auction, at prices anywhere from a few hundred dollars to \$20,000 or \$30,000 Released on bail, he promptly fled and is still currently on the lam.

Whether or not police catch him, however, the apparent counterfeiter is only one in a trend that is dumping a profusion of fakes onto the rare and collectible whisky market-brought on by the recent and ever-growing popularity of spirits among investors. A decade ago, only a few thousand bottles of whisky changed hands at auction, usually tacked on to the end of a wine auction, says Andy Simpson of Rare Whisky 101, a Scotland-based analyst and broker of rare scotch and whisky. By 2016, UK whisky enthusiasts were trading nearly 60,000 bottles at auction; last year,

they bought and sold 84,000. While the U.S. market is nowhere near as active, the past few years have seen a renewed interest in antique bourbon and other whiskies dating back to the Prohibition era.

Whisky-specific auction houses have cropped up around the world, with collectors buying bottles not only to drink and display but also to invest-paying in excess of \$100,000 for especially popular brands such as the Macallan, or for whisky from closed distilleries such as Port Ellen. Rosebank, and Brora. Oftentimes it's the same person who is collecting, investing, and consuming-meaning that available supply is always diminishing down the gullets of connoisseurs. "We have a huge increase in supply, but we are actually seeing a decline in the rarest and oldest bottles," Simpson says. That creates the perfect environment for counterfeiters to flourish.

A former corporate banker, Simpson has been collecting scotch since he was 16, when his father began giving him a bottle every year for his birthday. "I started putting them under my bed. Then 15 years

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ago when the auction market started to pick up, I started realizing some of my collection is possibly quite valuable." Along with partner David Robertson, he started Rare Whisky 101, which has developed a database of some 300,000 sales. Together, they have identified three types of fake whiskies, which they call relics, replicas, and refills.

Relics, Replicas, and Refills

For relics, counterfeiters often use authentic old bottles to re-create a classic brand. This is what Simpson found when he came across a small article in a business magazine about the most expensive dram of whisky ever sold-an 1878 Macallan poured at Swiss hotel Waldhaus am See. Last November, Zhang Wei, a Chinese writer of martial arts fantasy novels, paid more than \$10,000 for the glass. When Simpson saw the picture of the bottle, however, he immediately noticed problems with the label and emailed hotel manager Sandro Bernasconi. Robertson, Simpson's Rare Whisky 101 cofounder, traveled to the hotel and returned to Scotland with a sample of the suspect bottle, and his concerns were validated, "It was definitely a turn-of-the-century glass bottle, but it was a fake label, a fake closure, and a fake cork," Simpson says. Even so, Simpson and Bernasconi wanted to be sure, so they sent a sample to be carbon dated at the University of Oxford, which determined the whisky was likely made in the 1970s. Bernasconi promptly refunded Zhang's money.

The second category, replicas, are re-creations of more recent bottles, such as a Macallan 30-year-old, with unofficially printed labels. Simpson carries a portable alcohol meter with him around the world that can quickly detect the alcohol concentration in any given bottle. Whenever he and Robertson purchase a case of whisky, they insist that one bottle be opened, which they then test on the spot. "If it's an old Talisker, and it's meant to be 43 percent and it tests at 40 percent, it very quickly tells us it's 100 percent fake."

The most difficult counterfeits to spot are the refills—authentic bottles



in every way except for what's inside. Counterfeiters go around to hotels or online to find old bottles, Simpson says, and then fill them with cheaper spirits, looking for all intents and purposes like the real thing. For one recent bottle of Glenmorangie, the faker used an authentic card tube, bottle, label, and closure. The only clue something was amiss was that the closure was slightly loose. Some refills are so good they are virtually undetectable. "The only way you can tell some of these refills are fake is by opening them," Simpson says.

Bourbon Bootlegs

Both Simpson and Graham-Yooll urge that the best way for collectors to protect themselves is by going through reputable auction sites or brokers, who often guarantee their sales and reimburse buvers in the case of fraud. That's more difficult in the States, however, where there is almost no legitimate market for rare whiskey sales. The so-called three-tier system under U.S. law prohibits private alcohol sales, requiring that a distributor act as a middleman between brands and customers. A few auction houses,

such as Skinner in Boston and Hart Davis Hart in Chicago, sell a few hundred bottles of bourbon between them, and some businesses such as Soutirage, a "fine and rare wine retail and lifestyle company," aid clients in sourcing whiskies at a premium.

Most sales, however, take place in an Internet underground through sites like Craigslist or closed Facebook groups, where members post pictures of bottles and hold auctions in the comments or trade bottles with one another. "The vast majority of sales that happen in the United States are not legal," says Josh Feldman, a whiskey blogger at the Coopered Tot. "In the absence of legal avenues, there is a vibrant, illegal secondary market. That helps create the environment in which counterfeits can thrive."

The most sought-after American brand is Pappy Van Winkle, a Kentucky bourbon based on the mythology of whiskey maker Julian "Pappy" Van Winkle, who worked as a traveling whiskey salesman in the late 1800s, eventually running his own distillery, Stitzel-Weller, after 1935. When he died in 1965, his son and grandson carried on the tradition,

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sourcing whiskey from closed distilleries to create the Old Rip Van Winkle and Pappy Van Winkle Family Reserve brands-part of a resurgence in bourbon in the 1990s after the market crash in the '70s and '80s. In 1998, the Buffalo Trace distillery acquired the label and began producing new whiskey based on the old family recipe, including 15-, 20-, and 23-year varieties.

"People don't understand that the original whiskey is long gone," says Forrest Cokely, a judge at whiskey and rum competitions. "They think they are buying this history of this antique brand, but what they are really buying is a new distillery re-creating it." That hasn't stopped a mania of price speculation far beyond the suggested retail prices of \$80, \$150, and \$250. Driven by current limited-production quantities from the distillery, secondary sellers are flipping bottles for anywhere from \$1,000 to \$15,000. That has made the bourbon an irresistible target for fakers. "People started noticing empty bottles selling for hundreds of dollars on eBay," says Feldman. "Then these Pappy Van Winkles started showing



Real or Fake: One of these whiskies is a forgery. Both bottles and caps are genuine, but the one on the right contains cold tea. A classic refill.

up with nonstandard bottle closures. The plastic or the foil wouldn't match, or there were these older bottles with newer seals."

Along with Pappy Van Winkle, collectors seek "dusties"-old or discontinued brands like Old Overholt, Old Fitzgerald, and George T. Stagg-that once languished on the dusty shelves of rural liquor stores when bourbon lost its appeal in the 1970s, "At this point, probably every liquor store in America has been searched by dusty hunters," says Feldman. "So the collectible secondary market has raised its prices." The highest prices are reserved for bottles from the Prohibition or pre-Prohibition eras. Since the 1919 Volstead Act made it illegal to buy booze but not to own it, whiskey drinkers cellared stores of the stuff. A precious small number of bottles have survived, along with other brands created specifically during Prohibition that sold for "medical purposes." Buying "pre-Pro" whiskies can be a dicey proposition, though, as many bottles aren't sealed with capsules or wax, making them easier to tamper with. "It's always going to be a roll of the dice," says Cokely. "You don't

know where it's been sitting."

In the States, there are few counterfeiters creating relics or replicas. "Whole-cloth bourbon is still really rare," says Adam Herz, a Hollywood screenwriter and founder of the LA Whisk(e)y Society. "The fake bourbons I've come across have all been refills." In the online communities, some of the counterfeiters are well known, he says. "There's a guy in Kentucky; there's a guy in Texas. They will get bottles of anything empty and sell it for anywhere from \$80 to \$1,000." Despite operating openly, busting them is hard. "What do I do, call the police? You're dealing with a black market. It's like saving, 'Officer, someone sold me some fake cocaine."

Spirits Sleuths

Lacking outside enforcement, collectors have taken to policing themselves. Last year, Herz gathered evidence on Brandon Priest. a real estate agent in Louisville, Ky., for months-connecting empty bottles Priest had bought from eBay with bottles he later sold on Facebook. "He'd been selling a bunch of dusties and older and newer stuff,

a whole range," Herz says. "When I confronted him with it, the guy confessed." The incident created a panic within the Facebook group, with buyers who had spent hundreds of dollars on what they thought were rare bottles clamoring for repayment.

Eventually, Priest admitted to defrauding about 20 people, which amounted to sales of around \$20,000. "This is without a doubt the dumbest thing I've ever done in my life and it's something I have to learn to live with," he wrote in an apology statement, promising to destroy any remaining bottles and pay back everyone within the month. "This guy was not the brightest guy," says Herz. "Right now you've got local yokels doing this."

Vigilante justice aside, there have been few prosecutions for whiskey counterfeiting on either side of the Atlantic-to the endless frustration of those whose job it is to protect the brands. Buffalo Trace's chief compliance officer, Mary Tortorice, regularly monitors Craigslist and Facebook, employing a former FBI agent to investigate suspicious sales. When she sees Pappy Van Winkle on Craigslist, she contacts the company, which usually removes it promptly. "We literally send a takedown request to Craigslist twice a week," she says. But so far her appeals to the company to filter out and prohibit those sales have fallen on deaf ears. When the Louisville counterfeiter confessed to his crimes on Facebook, Tortorice reached out to the local FBI office, but to her knowledge they haven't taken up the case.

In one recent incident, police did intervene. In 2016, a New York CPA bought two bottles of Pappy Van Winkle for \$1,500 on Craigslist and soon became suspicious. He contacted the brand and sent photos of the bottles, which were reviewed by Preston Van Winkle, great-grandson of Pappy, who identified several features that marked them as fakesincluding a different-colored capsule and a lack of a gold pinstripe around the top of the bottle. The seller, Charles Bahamonde, eventually pled guilty to one misdemeanor count of larceny, was ordered to pay restitution, and was put on probation for

one year. State liquor enforcement in Pennsylvania and Georgia are also pursuing cases for illegal sales of Pappy Van Winkle, says Tortorice, but on the whole, law enforcement for counterfeiting is the exception, not the rule. "Our biggest frustration is the lack of resources that the police and regulators have," Tortorice says. "I appreciate they have a lot of other crimes they are putting their resources into, but because there isn't any enforcement it becomes the Wild West."

That has left brands and collectors to their own devices. Some brands, such as the Edrington Group, which owns the Macallan, have tried to proactively get on top of the recent incidences of fakes by carbon dating Victorian bottles, employing an archivist to curate their own archives of old bottles. "It's a bit of a compliment that people counterfeit you because you are the best," says Ken Grier, creative director of the Macallan, "But we take it terribly seriously. We want to have a record of our own products so we can be the definitive source of understanding this topic." Recently, the company was chagrined to find that "the vast majority of Victorian bottles were fakes," says Grier. Now, its archivists are embarking on a major study of the bottles in the collection to understand on a granular level the differences in color, labeling, and closures over the years.

Collectors differ on just how many fake bottles are out there-but none will say that he or she hasn't mistakenly bought at least one forgery. "I've been collecting for 25 years and maybe bought five or six bad bottles," says Marcel Van Gils, a Dutch collector who focuses on Laphroaig. One bottle had a genuine 30-year label pasted over a 15-year label. "A former employee with the bottling plant nicked it off the table," he says. In 2015, Van Gils brought a 1903 bottle to Scotland to be opened at the distillery, and the first giveaway was the cork, which was of a composite variety not used until 1909. The second giveaway was the taste. "It was horrendous," he says. "Absolutely not drinkable." Even so, he isn't too concerned about fakes-though he has seen increasing inquiries about them, particularly



Caught By the Cork: If the cork looks too good (or too bad), or does not match the material of the time. it can be a giveaway that the bottle is a counterfeit.

from China. "You get a nose for it," he says. "If the label is too good, or the fill level is too good, or the cork is too good, it's usually a dodgy bottle."

When he is unsure, he asks his friend Emmanuel Dron, a French collector who runs the Auld Alliance. a whisky bar in Singapore with a selection of more than 1,000 bottles. "There are so many fakes on the market now; it is just crazy," Dron sighs. Certain bottles he treats with skepticism right away, such as a 50-year-old Yamazaki, which at over 200,000 euros recently smashed records for being the most expensive Japanese whisky ever sold. "I can buy 10 empty bottles on the market in Germany that could be refilled," Dron says.

Dron recently wrote Collecting Scotch Whisky: An Illustrated Encyclopedia, which includes several pages on techniques for spotting fakesgoing beyond standard techniques of examining corks or labels to more esoteric techniques such as glass codes and tax strip numbers that can date a bottle more exactly. "You can cross-reference all of this information to help you find the truth," he says. He admits, however, that many collectors would rather not know whether their bottles are authentic for fear of seeing their investments disappear overnight. "There is a big taboo in the whisky industry-nobody wants to face the issue."

Herz, too, has seen a lack of interest in authenticating bottles. The LA Whisk(e)y Society offers a service to authenticate bottles, but collectors aren't necessarily lining up to take advantage of it. "People who suspect they've ended up with fakes, they don't want to know," Herz says. "They want to sell it to the next guy before they find out."

Scotland Yard Meets Scientific Savvy

For those who do want to know if a bottle is genuine, there are surprisingly accurate scientific methods of determining that. The simplest level is carbon dating, which measures the amount of a radioactive isotope of carbon, C-14, present in the liquid. Since radiocarbon spiked with nuclear tests in the mid-1950s, it is especially good at dating whiskies

after that time. "It will reflect the amount in the atmosphere the year the barley was grown," says Gordon Cook, a professor of environmental geochemistry at the Scottish Universities Environmental Research Centre in Glasgow. "You have an upslope and a downslope to the bomb peak," he adds, but usually he can tell which side a bottle is on from other clues.

Prior to 1955, the method is not as reliable, but Cook is working on another way to help date those other, older whiskies. He has done work for Whisky.Auction as well as some of the bigger distillers, estimating that he's dated whiskies 40 or 50 times. The process is relatively cheap at about \$400—a bargain for a \$10,000 bottle.

The difficulty with any scientific technique is that it requires opening the bottle, which can destroy its value for collectors. But Simpson notes that there are less invasive ways of getting liquid out of the bottle, such as using a hypodermic needle through the foil and the cork. At any rate, he argues, a bottle should be worth more if it can be proven authentic. "If there is an 1800s Macallan out there, it could be worth 100,000 pounds," Simpson says. "To prove it's 1870s liquid is far more valuable than to take a tiny, tiny fraction of the liquid out of it."

In addition to dating the year, chemists have been experimenting

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with other techniques to determine what kind of spirits are in a bottle, and even what brand it is. At Washington State University, assistant professor Tom Collins uses a technique called high-pressure liquid chromatography to separate the various compounds in the liquid and then analyze them with a mass spectrometer. In particular, the technique can be used to identify phenols, compounds that come from the cask a whiskey is distilled in. "We can essentially develop a profile or fingerprint to tell something about where it came from and match [it] to profiles that have been gathered previously,"

At Heidelberg University in Germany, Professor Uwe Bunz has created what he calls "optoelectronic tongues," which use an array of several fluorescent polymer-based dyes that glow under a black light and produce different fluorescent patterns, depending on the chemical components of the liquid, in order to identify a particular whisky or blend. "Our signal is mostly generated by the colored compounds that are unique to each whisky," he says. In tests he has done with storebought whiskies, the technique has been able to accurately match samples with controls. Neither Collins nor Bunz has worked directly with collectors, though Collins has begun working with some distilleries to create a profile library of their whiskies, and both professors are hoping to eventually commercialize their technologies to be available to the enthusiast.

Until foolproof methods can be developed to determine whether a whisky is definitively a fake, collectors advise a healthy amount of caution-but don't overdo it. "Do your research, but don't be a Scooby or a Shaggy," says Herz. "They are always walking around seeing ghosts everywhere, like 'Zoinks! It's a counterfeit!"" Even buying on the secondary market, he says, there's a high likelihood that a bottle will be real-though it's always worth watching out for those that seem too good to be true. "If it's a Pappy Van Winkle and someone wants to sell it to you for half its value in a parking lot," he says, that should ring the alarm bells that you're being offered a not-so-clever forgery.