



How Brewers Are Bringing Forgotten Beers Back to Life

Feature

By Norman Miller, March 19, 2019

Beer has hardly remained the same over the course of human history. Thousands of years ago, ancient brewers produced invigorating wonders with names like gruit and chichamade, flavored with things like bog myrtle, yarrow, or hemp. The idea of using hops in brewing didn't come up until about 1,000 years ago, way after these folk were doing their thing.

The oldest alcoholic creation found so far is a 9,000-year-old Chinese pick-me-up made using fermented rice, grape juice, honey, hawthorn, and orange peel. And we know this thanks to Patrick McGovern—officially, Scientific Director of the Biomolecular Archaeology Project at the University of Pennsylvania's Penn Museum, but unofficially the “Indiana Jones” of beer.

McGovern has spent three decades roaming the globe in search of ancient drinking residues to analyse with high-tech science—DNA analysis, mass spectrometry, radiocarbon dating—to work out when they were made and, most importantly, what went into them. Traces of calcium oxalate, for example, indicate barley beer, while tartaric acid is a marker for grape wine. Beeswax compounds are a sign of mead.

“Dr. Pat,” as many brewers affectionately refer to him, identified the world’s oldest known barley beer (from Iran’s Zagros Mountains, dating to 3,400 BC) as well as that 9,000-year-old Neolithic booze from China’s Yellow River Valley. And the latter is just one distinctive ancient beverage recreated by modern brewers using recipes in McGovern's 2017 book *Ancient Brews*.

In 2005, McGovern teamed up with Delaware brewery Dogfish Head to resurrect humanity's first known tipple, which they dubbed Chateau Jiahu. Mirroring the ancient ingredients as closely as possible, it included orange blossom honey, muscat grape juice, barley malt, and hawthorn fruit, with the wort fermented using sake yeast. The resulting off-dry floral-scented honey-hued brew knocked out beer connoisseurs—and not just because of a kick-ass 10% ABV. It won gold at the 2009 Great American Beer Festival, among several other awards.

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Dogfish Head's first collaboration with McGovern, however, was the 1999 re-creation of a beer worked out from sediments in a 700 BC drinking set found in the tomb of the legendary King Midas in Turkey. Christened Midas Touch, it

featured muscat grapes, Italian thyme honey, and Turkish saffron to create a love child of beer with wine and mead. With its sweet but dry saffron-kissed character, fruit aromas, and malt notes, it has scooped several golds at major awards, and remains a bestseller for the brewery. “And it was incredible for giving momentum and validity to the idea that you don’t have to reference the Reinheitsgebot to be brewing traditional beers,” said Dogfish Head brewer Sam Calagione at the time.

Also known as the German Beer Purity Law, the Reinheitsgebot was enacted in Bavaria in 1516 and decreed that beer was a drink that could only be made using water, hops, and barley. (Yeast was presumed.) But McGovern and other ancient drinks researchers have shown the bedrock of brewing was way more interesting and colorful than the puritan edicts of the Reinheitsgebot, with beers that intimately reflected local culture and environments.

The resurrection of ancient brews by modern producers is something McGovern believes should be strongly encouraged. “[In craft brewers], you have a group of people willing to try all kinds of different possibilities to see what might work and make a drinkable beverage,” he told the *Pennsylvania Gazette* in 2010.

Other ancient recipes in McGovern's book include a European beer called kvasir inspired by residues from a 3,500-year-old tomb in Denmark, flavored with meadowsweet, yarrow, birch bark, and lingonberry. There's a South American beer—which McGovern called “theobroma” after the Latin name for chocolate—that ancient Olmecs would have enjoyed, based on 3,200-year-old residues from Honduras featuring fermented corn, coffee malt, cocoa, dried ancho chili, annatto seeds, and honey. Ta henket, by contrast, is a riff on an ancient African beverage including crushed wheat, flour, hops, dried dates, moss, chamomile, and the Middle Eastern spice za'atar.

Other sources have provided recipes for modern brewers to recreate ancient ales. In 2018, Canadian brewery Barn Hammer's Head Brewer Brian Westcott teamed with Matt Gibbs of the University of Winnipeg to make a beer inspired by a 4th-century BC brew recorded by Zosimus, an alchemist living in Egypt under Roman rule. The recipe came from a 2008 book by Max Nelson called *The Barbarian's Beverage: A History of Beer in Ancient Europe*.

The resulting beer—made with a sourdough bread yeast—was initially pale but cloudy. Left for 10 days, however, it cleared to something looking like a contemporary pale craft ale, with alcohol content around 3%. As to the taste, the consensus was something like a sour cider with hints of raisin. “If you expect this to taste like a modern beer, you are not going to find that,” said Gibbs at the time. “This beer is very sour. [But] it's good.” Barn Hammer owner Tyler Birch was more effusive: “I'm blown away by how good it is. It's very drinkable.”

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Gruit was a key European style of beer back before hops became a staple of brewing. The name is an old term for a mix of locally foraged flavorings—much like botanicals in gin—added to these ancient brews.

Stuart Howe at Sharp's Brewery in the west of England created a modern-day gruit in 2010 containing yarrow, turmeric, bay, and lemon balm. His wort was mashed from a 50/50 blend of malted barley and wheat, then boiled for two hours to kill off any nasties before adding his gruit flavorings. This was then fermented with a Trappist yeast, plus some top pressure. “To hold as much of the fermentation-derived aroma to add to the botanicals' contribution,” explained Howe at the time.

Over in the US, California's Moonlight Brewing has also made a woodsy-herby menthol-inflected gruit called Artemis, containing mugwort for bittering, plus other flavorings like wild bergamot—though love-it-or-hate-it opinions from customers meant this was a one-off ancient ale.

At William Bros Brewery in Scotland, however, one of the current most popular beers is Froach—a floral, spicy brew made with local heather and sweet gale, which the company claims to date back to 2,000 BC. Another ancient beer in their range is Ebulum Elderberry ale, inspired by a brew 9th-century Welsh druids made to be consumed by local villages at autumn harvest festivals.

The same company's Alba Pine Ale, meanwhile—a “triple” style made using sprigs of spruce and pine—nods to a traditional Finnish brew called sahti, filtered through juniper twigs and fermented with bakers' yeast. Norwegian brewery Nøgne Ø has also brewed sahti-type beers. “We love to explore new ingredients and brewing methods, and ancient beers definitely have a lot to offer in today's beer scene,” says Nøgne Ø's Tom Young.

Let's leave the last word, though, to Dr. Pat. “I believe recreations enable us to rediscover many new possibilities for modern brewing,” says McGovern. “It's 'back-to-the-future.’” Or, in other words, to go forward, it sometimes pays to look back.

Illustration by Remo Remoquillo.

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