

The Beers That Time Forgot: Patrick McGovern's Quest for Ancient Fermentables

By The Brews Brothers

(Steve Frank & Arnold Meltzer)

When humans settled down and began raising grain, they did so not for baking bread, but "probably to make an alcoholic beverage of some kind." So reasons Dr. Patrick McGovern, a man whose research on ancient ales has earned him the title of the Indiana Jones of brewing.

The author of the 2009 book *Uncorking the Past:*

The Quest for wine, beer, and other alcoholic beverages,

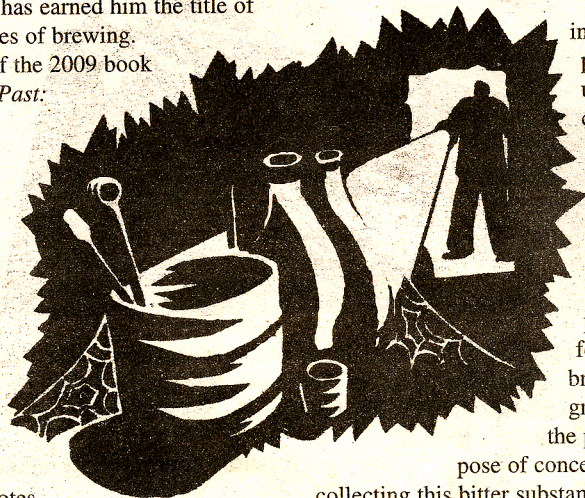
McGovern says the biggest revelation of his research has been "how central alcoholic beverages are to human development." He notes that "consuming high-energy sugar and alcohol was a fabulous solution for surviving in a hostile environment with few natural resources." Another motivation for converting foodstuffs into alcohol was that "it was mind-altering."

3000 BC. The site sits on a forerunner of the Silk Road trade route. Findings from these digs included the earliest wine jars discovered at that time, as well as carbonized barley.

Examining in his lab a potsherd with unusual interior cross-grooves, McGovern and his colleagues found calcium oxalate, a byproduct of barley beer production still found in today's breweries. The grooves served the practical purpose

of concentrating and collecting this bitter substance, also known as beerstone. McGovern believes this jar, with its flared rim and rounded base, is "the earliest known beer bottle." (Findings from this expedition would eventually lead to the modern beer *Midas Touch*.)

The oldest beer found to date by



McGovern holds the impressive title of

scientific director of the bio-molecular archaeology laboratory for cuisine, fermented beverages, and health at the University of Pennsylvania Museum in Philadelphia. He also

serves as a consultant on pottery and stratigraphy (the study of rock layers) to digs throughout the Middle East and elsewhere.

But his pioneering work over the last two decades has been in the scientific analysis of ancient organic remains. We might envision the white-bearded McGovern prowling around old tombs and caves with pick and flashlight, but his work also involves such esoteric scientific tools as liquid chromatography and mass spectrometry.

Unearthing the First Beer Bottle

McGovern's ancient alcohol odyssey began with artifacts from earlier excavations at the Godin Tepe site in the Zagros Mountains of Iran, dating from 3500 to

McGovern comes from the

central plains of ancient China, at the Neolithic village site of Jiahu. In jars from about 7000 BC, predating pottery in the Middle East, McGovern found vestiges of grapes, hawthorn fruit and pycosterols, the latter being evidence of rice.

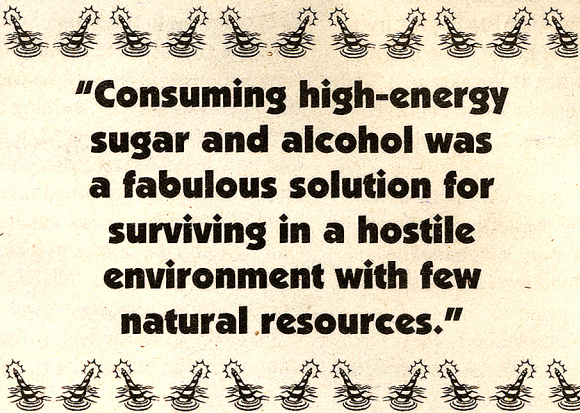
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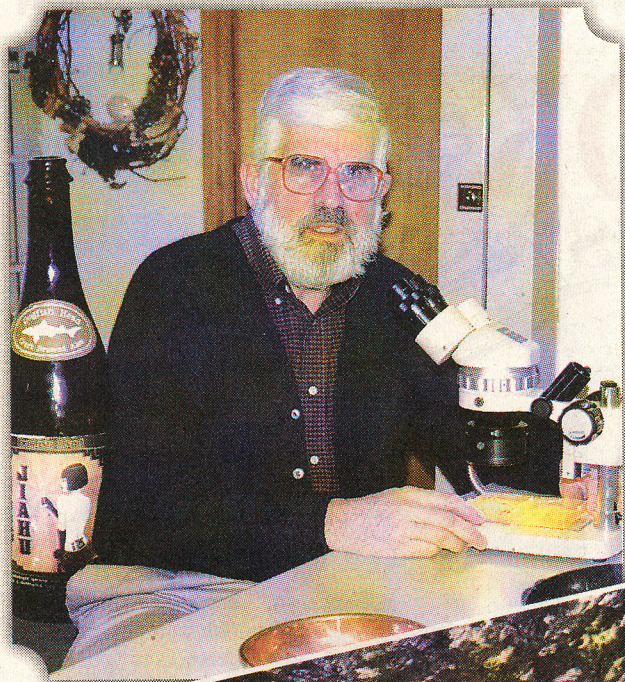
McGovern, the beer brewed from this concoction had an alcoholic level of 10% and was consumed by the entire community, not just the wealthy.

The earliest Egyptian brewers, according to McGovern, made use of bullrush and wild sorghum; brewing equipment from about 3400 BC consisted of mash tuns similar to those still used in West Africa today. There are even indications in Egyptian tombs of imported beers.

McGovern's Egyptian research was brought to a wider audience by the Delaware-based Dogfish Head Craft Brewery through its Ta Henket (the name means "dogfish head beer" in hieroglyphs). The beer was made with emmer, an ancient form of red wheat, and loaves of hearth-baked bread; it was flavored with dom-palm

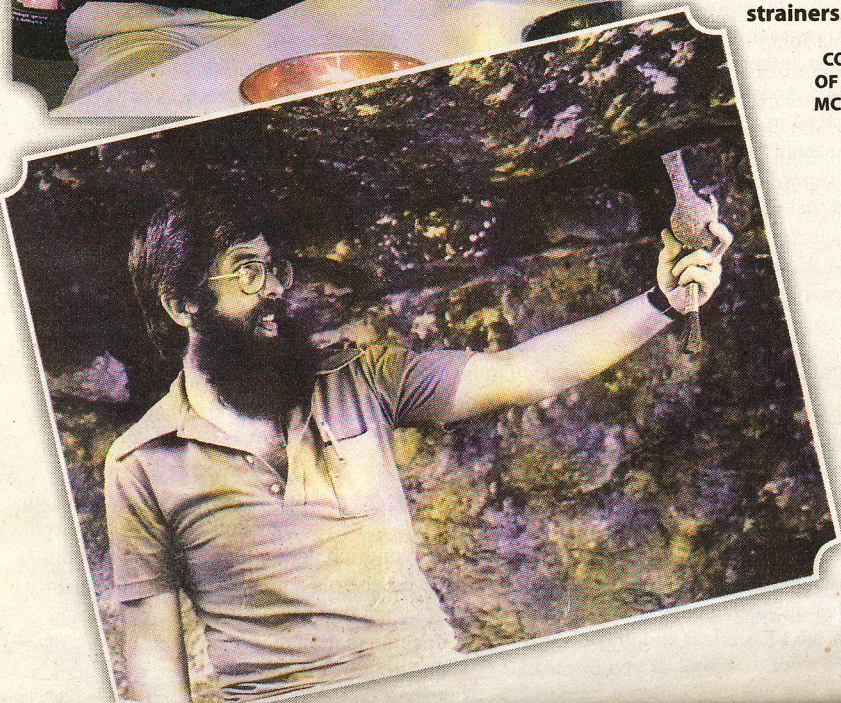
"Consuming high-energy sugar and alcohol was a fabulous solution for surviving in a hostile environment with few natural resources."





(Left) Patrick McGovern examines the residues from the King Midas excavation, surrounded by Dogfish Head's recreations of ancient ales. (Below) A younger Patrick McGovern, circa 1980, appears to shout "Eureka!" as he holds up a unique juglet in a 3,000-year old Jordanian burial cave holding a unique juglet. The cave also yielded Philistine-related beer strainers.

PHOTOS
COURTESY
OF PATRICK
MCGOVERN



Dogfish to Hold Ancient Ales Dinners

Now you can dine as sumptuously as King Midas did.

The Dogfish Head Craft Brewery in Milton, Del. is planning a series of 8-12 Ancient Ale Dinners later this year based on joint efforts with Dr. Patrick McGovern to resuscitate long-vanished brews. About half will be in Dogfish Head's Mid-Atlantic nucleus. Announcements about the times and locations of the dinners will be made in late spring or early summer.

The dinners will include *Chateau Jiahu*, based on a 9,000-year-old beer from northern China; *Midas Touch*, incorporating ingredients that coated 2,700-year-old drinking vessels discovered in the tomb of King Midas in Turkey; *Theobroma* (translated as "food of the

gods"), based on an analysis of a Honduras site that revealed the earliest known alcoholic chocolate drink; and *Sah-Tea*, a modern update of a ninth-century Finnish beer. The dinner also will feature *Pangaea*, a beer made with ingredients from every continent (including water from Antarctica), *60 Minute IPA* and *Palo Santo Marron* (a strong brown ale aged in tanks of the exotic Paraguayan Palo Santo wood).

The dinners will include souvenir glassware and elaborate menus individually developed to complement the ales.

-Steve Frank & Arnold Meltzer



fruit, chamomile and zatar, an Egyptian spice that brewery president Sam Calagione discovered at a bustling Cairo street market. The “super herby” beer, the subject of an episode of “Brewmasters” on the Discovery channel, has been available only at the Dogfish brewpub in Rehoboth Beach, but Calagione plans to package it in 750-ml bottles for a wider distribution in late summer.

Calagione fermented the prototype of the Egyptian ale with a yeast strain he cultured almost in the shadow of the pyramids. He was preparing to do another test batch as we went to press in mid-March.

Bringing Ancient Ales to Life

McGovern’s involvement with Dogfish Head’s ancient ales series began at a UPenn Museum beer dinner featuring the late beer author Michael Jackson. On the 50th anniversary of the original excavations at Godin Tepe, McGovern gave a lecture about his findings and offered to open his lab the next day to anyone interested in learning more details. To his surprise, about 20 brewers showed up. Based on his enjoyment of Dogfish’s *Shelter Pale Ale* and *Braggot* (the latter made with honey, plums and barley), McGovern chose Dogfish to brew *Midas Touch*, the modern incarnation of the beer served at the King Midas’ funeral feast,

flavored with honey, white Muscat grapes and saffron.

McGovern prefers the recreations of ancient hybrid beverages that were based on his findings, but he’s also a hophead, enjoying *Dogfish Head 90 Minute IPA*.

He’s currently investigating the introduction of wine to southern France at Etruscan sites dating from about 550 BC. He expects to learn much about the native beverages, which possibly included wine and beer. He also hopes to do another recreation in partnership with Dogfish Head. Perhaps the current research will provide the catalyst.