



WORLD BREWING CONGRESS

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#ElevateBeer

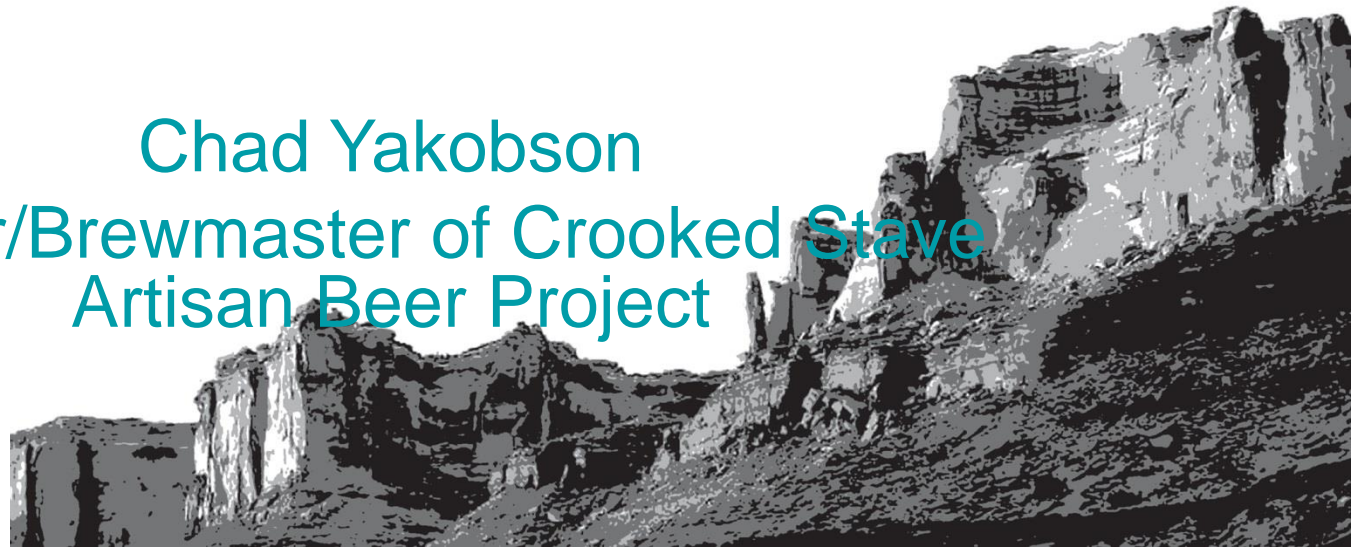


The History of Barrels and Modern Barrel-aging

The Lexicon of Barrel Aged Beers

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Why Barrel-Aging Why Wood?

- Bart Watson economist for The Brewers Association estimates upwards of 85% of all American breweries are using wood in some form or fashion
- Dominant shipping container for most of recorded history
- Relegated to “retro brewing” status upon initial modern resurgence





From The Earliest Times

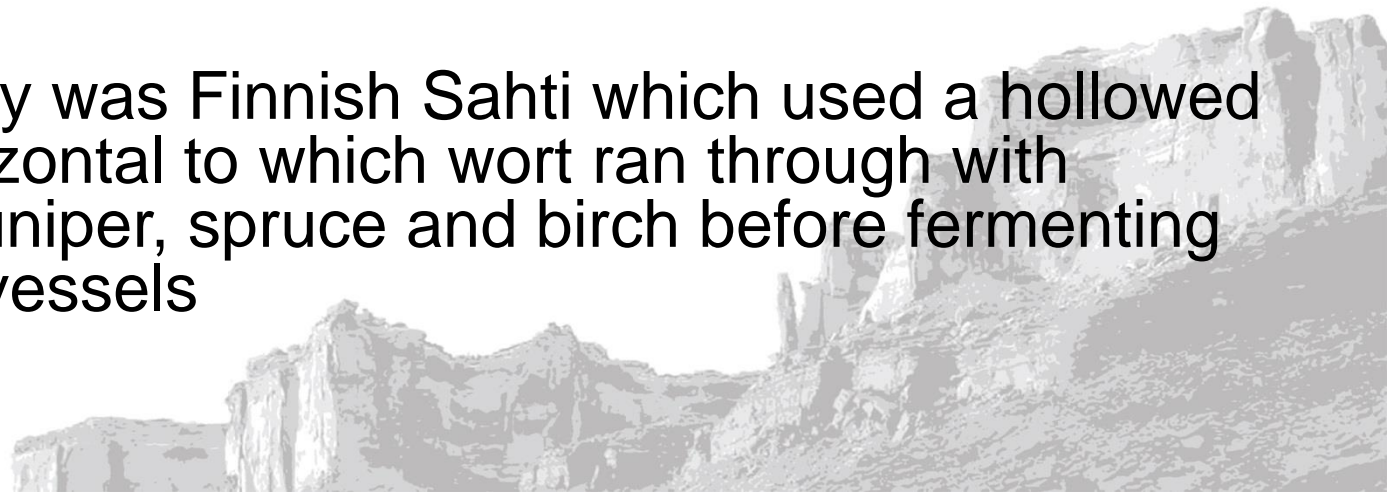
- The barrel was first developed in Celtic territories between 1000 and 500 BCE
- Advances in tools from stone to bronze to iron had a significant impact on barrel building capabilities
- First barrels were made from malleable wood – Pine, Poplar, Palm
- Recorded use in many cultures and civilizations up through the 3rd century





Barrels For Dry Goods and Liquids

- For around a 1,000 years including the period around the “Dark Ages” records of barrel use become few and far between
- Records for brewing and wine making were preserved
- Nordic Brewing tradition in particular speak of equipment made of hollowed wood
- Most notably was Finnish Sahti which used a hollowed log ran horizontal to which wort ran through with lattices of juniper, spruce and birch before fermenting in wooden vessels





The Height of Barrels & Their Demise

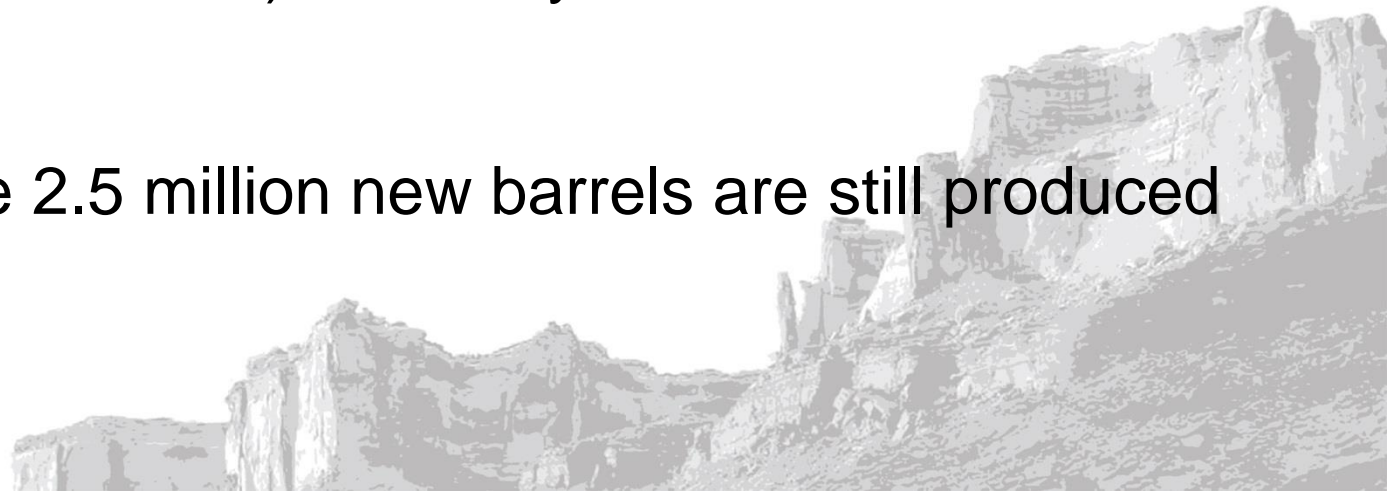
- It has been said that the age of exploration could not have happened without barrels. They carried literally, everything!
- In 1889 inventory at Burton-on-Trent showed 40,499 butts, 133,464 hogsheads, 127,592 barrels, 147,969 kilderkins and 68,587 firkins – over half a million all told all made of wood.
- In 1906 records indicate 65 million loose slack barrels were produced along with 18 Million tight barrels for liquids
- Upwards of 2 million of those barrels were for beer production





The Height of Barrels & Their Demise

- Modernization brought the use of steel to the for front. Just as ships became metal behemoths, the use of barrels was replaced with metal shipping containers, steel drums and glass and cans for packaging materials.
- Barrel production only continued around the centers which still required barrels for their process – France (Burgundy/Bordeaux) Kentucky, Scotland, California and Spain
- Today some 2.5 million new barrels are still produced each year





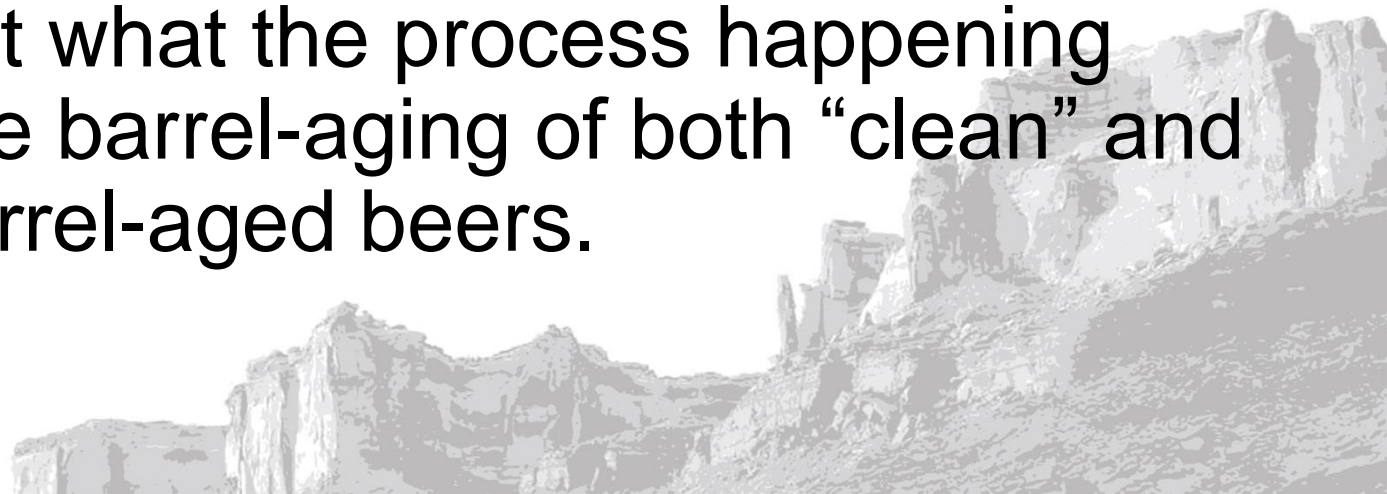
Modern Use of Barrels

- Mind you that a few breweries continued to use barrels all along, most notably in Belgium including Rodenbach and the brewers around Brussels which produced *Lambic* a spontaneous sour beer
- In America the resurgence began with full-flavored dark beers aged in bourbon barrels
- This led to a full-fledged resurgence over the past 10 years during which time every type of beer has been put in a barrel, usually of vinous or spiritous first use and then aged and conditioned for some time.
- Subsequent Secondary fermentations proceed with the aid of wild yeast and bacteria to produce tart and sour beers



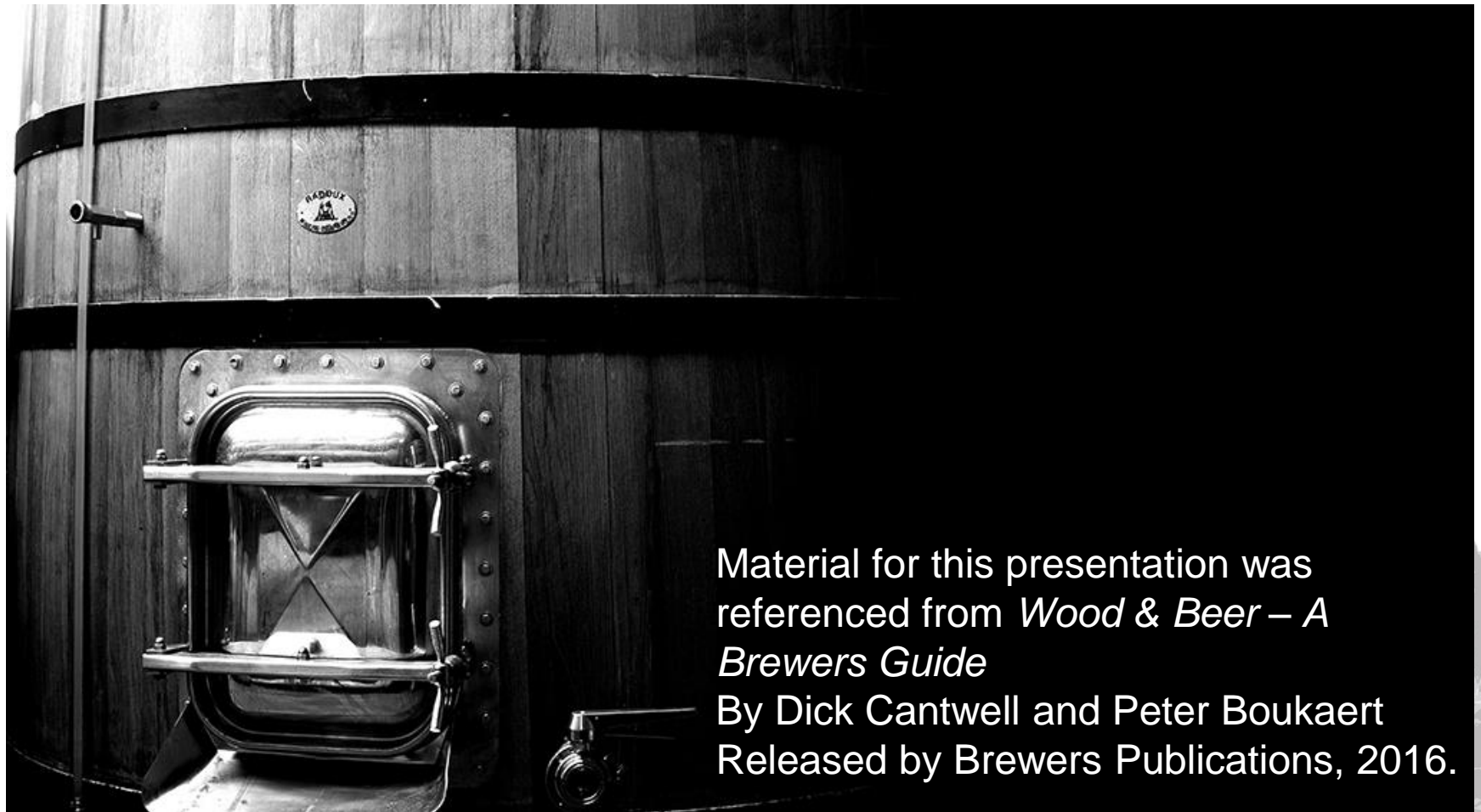
Modern Use of Barrels

- There is no shortage of examples of great beers that have matured in oak barrels
- This Lexicon workshop is a chance to examine a few examples of the wide range of beers that come out of barrels and to talk about what the process happening during the barrel-aging of both “clean” and “sour” barrel-aged beers.





Why Barrel-Aging Why Wood?



Material for this presentation was referenced from *Wood & Beer – A Brewers Guide*
By Dick Cantwell and Peter Boukaert
Released by Brewers Publications, 2016.