Cellarmanship and Real Ale

In the late 19th century cellarmen in the tavern at Newgate Gaol were, according to the Oxford English dictionary "selected prisoners who could sell candles at their own prices and got a percentage upon the liquors consumed."

Ale in the 16th century

John Bickerdyke in his Victorian classic entitled 'The Curiosities of Ale and Beer' (London 1889) quotes a fascinating passage from Andrew Boorde's Dietary published in 1542, which makes plain the criteria deemed important for the achievement of an acceptable standard in the ales of the time:

Ale for an Englysshe man is a naturall drinke. Ale must have these propertyes: it must be freshe and cleare, it must not be ropy nor smoky, nor it must have no weft nor tayle. Ale should not be drunke under V days olde. Newe ale is unholsome for all men. And sowre ale, and deade ale the which doth stande a tylt, is good for no man.

Freshness and clarity need no explanation. Ropiness refers to the viscous, glutinous or shiny threads formed in ale so infected. Smokiness as evidence of bacterial infection, rather than the effect of the use of malts cured over wood fires, would have been as unwelcome in Tudor ales as in those of today. Weft refers to streakiness or cloudiness and "tayle" to the dregs or yeast sediment. Sourness would be attributable to the presence of acetobacter or various lactobacilli. Dead ale would have been flat ale without any carbonation. The injunction not to drink ale under five days old given its "unwholesome" nature probably refers to the inexorable and noxious effect on "mans physik" of ingesting quantities of fresh yeast.

From Andrew Boorde to the present day commentators and brewers have been open in stating what properties ale should not evince rather than describing the virtues or desirable qualities either in technical or aesthetic terms. Indeed, Michael Jackson has remarked that until comparatively recently very few descriptions of beer flavour have existed in brewing literature, an omission that he, pre-eminently has remedied in the last twenty years.

Today we are all better informed about the histories of beer styles and the family trees of bottom- and top-fermented brews. However, to a large extent, the mystery of cask-conditioned or real ale remains. What exactly is it? What is special about it? Should it be flat, warm and cloudy?

What is Real Ale?

The frequently quoted definition from the Oxford English Dictionary for real ale is "A name for draft (or bottled) beer brewed from traditional ingredients, matured by secondary fermentation in the container from which it is dispensed, and served with out the use of extraneous carbon dioxide."
"Real ale" as an expression was adopted by CAMRA (the Campaign for Real Ale) in 1973. First known as the Campaign for the Revitalization of Ale, its name change was an attempt to simplify and shorten what was an uncomfortable mouthful of letters at the most sober of times. The appellation is a convenient campaigning device that has attracted a lot of crass comments about the "realness" of filtered beers from some of the pin striped, half-witted vulgarians who affect to run breweries in Britain.

I prefer the simplicity accuracy and nondidactic expressions "cask-conditioned" or "bottle-conditioned" to describe beer with live yeast. The qualitative difference, of course, between cask- conditioned beers and filtered beers lies in the presence of live yeast, which is able to feed on any fermentable sugars remaining in the beer from the time it is racked into cask at the brewery and to impart its own individual imprint of aromas and flavours as well as life-enhancing carbonation.

However, what might be termed CAMRA's "clause celebre" has inspired the fundamentalists of the campaign to insist that even a non-invasive blanket of carbon dioxide at atmospheric pressure to protect slow-selling beers from the ravages of oxidation must be construed as an unnatural interference with the aroma, flavour and mouthfeel of cask ale, thereby rendering it non-real.

Their strongest claim is that the air drawn into a cask on dispense somehow softens the palate of the beer resulting in beneficial flavour changes analogous to the effect of oxygen on a young red wine. The fact that not a smidgen of evidence can be produced to support their thesis appears not to deter them in their dogmatic determination to be wrong and to penalize those who wish to get it right by excluding from the listings of beers in Good Beer Guide pubs those beers that use blanket pressure as part of their dispense and preservation regime.

The Art of Cellarmanship - Cask Conditioned Ales

Cellarmanship in the broadest sense covers the gamut of drinks sold by retail outlets and requires a detailed technical manual. The purpose of this short piece, though, is to set out the general principles for the successful management of cask- conditioned ales.

An avaricious brewer may define cellarmanship as the art of serving a continuous supply of saleable beer with the least financial loss. Here, compromises will be made on quality in order to fulfil the primary requirement of profit maximization.
My view on the primary goal of cellarmanship, which, incidentally has not changed since August 1981, is the following:

To promote the most beauty in each cask of beer by developing the most interesting range of sound aromas and flavours; by nurturing wherever possible high levels of natural carbonation consistent with each beer style and, moreover, by serving each beer in a manner and at a temperature that enhances its aroma and flavour profile and creates an appropriate mouthfeel.

The above must follow the disciplines of good husbandry continuity of supply and speedy turnover in order to keep the beer in each broached cask as fresh as possible.

The Techniques of Cellarmanship

1. Setting a Stillage

Securing a cask of beer: A stillage is the name given to any solid object that enables a cask of beer to be laid down and prevented from moving by means of the insertion of wooden wedges (also known as scotches or chocks). It is important that casks be set horizontally with the shive pointing straight at the ceiling (see diagram). If a cask is stillaged with a forward tilt, sediment will fall to the front of the cask and be concentrated at the tap, leading to fouling of the tap and the need to draw off three or four pints of beer before the clarity and quality of the cask's contents can be judged accurately. If the cask is tilted backward, problems of unstable yeast and finings slurry slipping forward may arise when the cask is tilted in order to decant the final few gallons.

2. Conditioning

The purpose of conditioning is to reduce the level of carbon dioxide in the cask to enable a good finings action to occur and then to build up the level of carbonation appropriate to the style of beer.

Venting excess CO2 is achieved by inserting/hammering a porous peg ("soft peg" made of soft wood, usually bamboo cane) into the sealed shive tut causing a sudden escape of gas and the immediate emergence of fobbing beer. This procedure should be carried out in a controlled way; i.e., the contents of each cask should be chilled to 52 to 55 degrees F in order that a relatively calm and nonexplosive purging of excess CO2 can take place.

It is also important that upon soft spiling, the cask should have an even distribution of finings and yeast. It is sensible to roll each cask vigorously before stillaging, securing and venting. The time taken for the beer to "work" through the soft peg will vary according to each yeast strain, the concentration of yeast cells per millilitre, and the yeast's general friskiness, along with the amount of residual sugar/primings in the cask and the temperature/state of agitation of the cask. In the case of exceptionally lively beers, it may be necessary to replace the soft peg every hour for a day or more. The pegs sometimes become blocked with yeast and, occasionally a plug of dry hops may form underneath the soft peg, preventing the release of gas.

The rule on the amount of time to soft peg beer is that there is no rule. It is entirely dependent upon the yeast fining regime adopted. The object of soft pegging is to reduce the amount of CO2 to the point at which the finings will prove effective.

But do not over vent. You are preparing the yeast for a marathon journey not a short sprint, hence the need to vent at low temperatures and avoid exhausting the supply of sugars. The tension to be observed is the need to produce clear beer and the imperative to stimulate good to high levels of CO2 in solution.
Flat, clear beer is the norm in Britain. We drink with our eyes and then jazz up flat beer by forcing it through a tight sparkler. We cannot put our well-conditioned pale ales through a sparkler at the White Horse without substantial wastage due to the relatively high level of CO2 in solution.

Hard pegging should occur when a cask has "worked" to the point where it takes 3 to 10 seconds for the fob to re-form on top of the soft spile after being wiped clean, again depending upon the style and strength of the beer, the yeast/finings regime, and when the beer is required for dispense. The soft peg should be replaced with a nonporous hard spile to prevent the escape of any more CO2 and to slow down yeast activity.

Dropping bright will now occur and is, in my experience, greatly assisted by a rising temperature. Again, it is a matter of trial and error with the yeast strains used, but I have found that taking the ambient cellar temperature from 52 to 54 degrees F up to 58 to 60 degrees F for about 8

to 12 hours produces consistently bright, polished results across the range of ale yeasts used in Britain today. Dropping bright times from hard pegging vary from four hours to four to five days.

Carbonating should now take place after a spell of warm conditioning at 58 to 60 degrees F. It is important to chill back down to 52 to 55 degrees depending upon the temperature that your yeast is happy with. The lower the temperature tolerated by the yeast, the greater the level of carbonation possible.

Bass yeast remains one of the liveliest and most tolerant of yeast strains in Britain and will work happily at 50 degrees. After a four-week maturation period in the cellar at 50 to 52 degrees F our pale ale has the most glorious, mouth caressing effervescence that one could wish for.

3. Maturation

This part of the process of cellaring beers, sadly, is seldom given much attention in practice. However, aging beers not only allows the appropriate level of carbonation to be generated but also allows the beer to dry out the effects of krausen or priming additions, thus taking away any insipid qualities from the palate of the beer. The fresh kiss of yeast, the hallmark of cask-conditioned ale or unfiltered lager, develops further impact and complexity during the process of maturation, be it in a lagering tank or in a cask. Aging also enables the effects of dry hopping to achieve maximum impact after two weeks or so in cask, developing its own particular grace and delicacy of aroma.

For beers such as low-gravity dark milds, we would expect to put the beer on dispense in the shortest time possible, perhaps only four or five days after racking, in order to promote the slightly sweet, fresh malt character of this supremely quaffable style. We cellar ordinary 1040 original gravity pale ales, such as Harvey's Sussex Best Bitter, for two weeks in order to extract the succulent malt characteristics and earthy Sussex hop flavours, but stop before the dual strain, spicy, clove-like yeast imprint becomes dominant. A period of two weeks also enables us to build up good levels of carbonation to provide the complementary mouthfeel so sought after.

Draught Bass we keep for three to four weeks as described above. Old ales have been cellared successfully by us for months; two months for Highgate Old (1050 og.) this past winter to a year in the case of Traquair House Ale and Adnam's Tally-Ho (1075 og.).

4. Dispense

The key areas to get right here are:

Temperature, ideally 50 to 55 degrees F depending upon the style of beer and the ambient temperature. Please don't excessively chill a rich, biscuity, malty Scotch ale or an ester-laden, vinous barley wine. Therefore, pay attention to insulated beer lines (and beer engines) carrying beer from your cellar or chill cabinet behind the bar to the customers' glass.
Use either tap-fed gravity dispense or beer engines. If you use beer engines, decide which beers benefit from the use of sparkler attachments in order to produce a tight, creamy head. Stouts and dark milds can be enhanced by the use of sparklers, but think carefully and experiment before you connect a carefully crafted IPA to an 'Angram Pip'.
Each cask broached and put on dispense should be consumed as quickly as possible; ideally within 24 to 48 hours unless a cask breather is used. It is not just a question of oxidation and acetification setting in, but the loss of CO2. In all but the most carefully prepared casks, such loss will result in a notable loss of freshness and vitality, which matter a great deal to me.

For those of you who are preparing pale ales for cask-conditioned dispense, the following quote from the head brewer of Marston's in 1899 provides a rare insight into his perception of quality and indicates just how far brewing techniques had advanced from the 16th century:

An ideal glass of ale should evidence stability, "star" brilliancy, absence of deposit or floating particles, a foaming, tenacious, creamy head, with beads of carbonic acid gas adhering to the sides of the glass; the ale when first poured out being as cloudy as milk, subsequently slowly clearing as the gas in solution rises to the surface of the liquid, forming the close head already mentioned, the flavour also being that suited for the district where it is to be consumed.

To paraphrase the late, great Bill Shankly, pioneering manager of Liverpool Football Club, cask-conditioned ale is not a matter of life and death-it's much more important than that.

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