

The Trubadours

A Tour of the Caledonian Brewery, Edinburgh, Scotland

by Gary Corbin and Laura Guimond

This is the third in a series about the pubs, beers, and breweries that we encountered in our May 1996 trip to Britain and Ireland. Future articles will feature John Smith's Brewery in Tadcaster, Yorkshire, and our various pub crawls and beer tastings.

We were two weeks (and dozens of beers and pubs) into our month-long tour of Britain and Ireland when we landed at the doorstep of the Caledonian Brewery in Edinburgh, Scotland. Amidst the vast selection of quality beer, however, this tour and this brewery stand out as a special memory of the trip and of Scotland in particular.

We were met at the appointed time by George Thomson, a “retired” master brewer and maltster at Caledonian, for our personal tour. Mr. Thomson, who started brewing at University in 1939 and at Caledonian in 1948, came in on his day off and spent two hours with us. He was very knowledgeable and forthcoming, and gave us a no-holds barred tour – we saw it all up close.

The Beers

Caledonian ales (they produce no lagers) are known to Oregon beer drinkers through its Golden Promise line of organic beers and its MacAndrews Scottish Ale. Caledonian also sells Caledonian Amber Ale in the U.S., primarily on the east coast, and a range of products locally (including Deucher's IPA, which will be reviewed in a later article).

A local custom is to name beers (particularly bitters) rather simply, based on historical taxation standards. The ales were taxed according to their expected alcoholic strength (original gravity). For example, the Caledonian 80/-, or “80 shilling” ale, is the beer brewed at the strength traditionally taxed at 80 shillings per barrel. Typical drafts range from 60/- to 80/-, giving the pub drinker a fair metric by which to compare beers from a particular brewery or across breweries.

The Brewery

Caledonian has been malting and brewing in Edinburgh since 1869. At one time it was one of 16-20 breweries in Edinburgh; today, only three (including Caledonian) remain independent of the Scottish and Newcastle brewing conglomerate. Two brothers own and run the brewery: Russel Sharp is the head brewer, and is also a distiller; brother Dougal is the head “working” brewer.

Caledonian is proud to follow traditional brewing methods, producing primarily cask-conditioned ales. Some products are bottled under contract by Sam Smith's at Tadcaster. Caledonian does not add sugar or coloring agents; they claim to be the only brewery in Britain to use 100% malt to produce their wort. They also boast the oldest copper kettle in use in Britain – in use since they opened in 1869. This kettle, its component parts riveted together rather than welded, was originally fired with coal, but has been retrofitted and is now gas-fired.

Malting at Caledonian

Caledonian's malting house, which supplied the brewery with its malt since 1869, tragically burned down in 1995. The malting house *per se* will not be rebuilt; the building is under reconstruction now to create a museum, offices, and storage cellar.

For most of its history, Caledonian used traditional malting techniques: barley was steeped three days until germination, after which it was shoveled onto floors in an 8" bed and hand-turned with shovels to aerate it. (Recently, the turning of the grain was automated, and the grain was sprayed rather than immersed to initiate germination.) The malt was then kilned to the extent needed to produce the three types of malt used at Caledonian: pale, amber, and black.

Ingredients

With destruction of malting house, they now buy low-nitrogen **malt** from maltsters in Lothian, Scotland. Originally, Caledonian used **water** from their own well until an oil slick penetrated their water supply, causing them to switch to city water. **Yeast** is cultivated and reused from batch to batch for up to one year, or until inspection under microscope shows that the level of dead cells is too high.

Caledonian uses only English **hops** in its brews, typically Fuggles and Goldings, except in its organic beers; in that beer they use Styrian Goldings imported from Slovenia. Hops are kept in a 15' x 30' cold storage room. On one side of the room they keep what Mr. Thomson described as "the old hops, used for boiling," and on the other side were the fresh aroma hops. We were able to stroll around the room, grab and sniff handfuls of hops, and generally just enjoy the lovely aroma.

Process

Sometimes homebrewers get up in the morning and decide to brew up a batch later that afternoon; not so Scottish microbrewers. All batches must be logged 48 hours in advance for possible excise tax inspection, which can happen anytime. Inspectors have keys to the breweries in Scotland. Batches planned or in process while we toured were the Caledonian 80/- and the IPA.

Caledonian uses an extended, 6½ hour mash/sparge process, with constant mixing and spraying throughout. Five taps below the mash tun drain the wort to the kettle, and can be used to draw samples to test the wort during the mash. The typical brew length is 50-60 barrels, two per fermentation tank. Thus two of their three kettles are used to fill a single fermenter. After the mash, a mechanical rake removes spent grains, which are then sold as cattle feed.

The wort is boiled at a super-hot 149C for about two hours. The first hops are added two hours before the end of the boil, and true to Scottish tastes, the flavor/aroma hops are added no later than 20-30 minutes before the end of the boil. In earlier days, Caledonian used to rub casks with fresh hops as its final "dry hop" addition. That practice is no longer followed, and in fact Caledonian no longer dry hops at all.

Hot wort is first pumped to a hop strainer for 30 minutes, then pumped to a heat exchanger, essentially a set of pipes in a jacket of cold water. The cooling system is very efficient – it takes about 50 minutes to cool a 50-barrel batch. The output hot water is reused for cleaning and heating.

After the yeast is pitched, it is roused for a while to oxygenate the wort. Caledonian uses single-stage, open fermentation – so open, in fact, that we were able to scoop some krausen off the top and sides of the fermenter and taste the green, bubbly beer-to-be.

The fermentation takes place on a rigid one week schedule. If the fermentation is too slow, the brewer may add hot water to raise the fermentation temperature, or cold water if it is too fast. Krausen is skimmed three times during this period. Once fermentation is complete, a World War II-era yeast press (they were expecting delivery of a new one just a week after our tour) is used to remove additional unwanted yeast from the beer. The yeast sticks to the sheets in the press; the sheets are removed and the yeast is scraped off and tested for viability and accordingly either re-used or tossed out.

While Caledonian does use a yeast press, they do not filter the beer. Draft beer is racked from the fermenter to a small staging tun, from which it is packaged into stainless steel casks, which are hand-bunged. Powdered isinglass is combined with water, sulfurous acid, and bicarbonate, then added directly to the cask, from which the beer is served in pubs a few days later.

Caledonian does sell bottled beer, but does not bottle itw own; beer to be bottled is racked from the fermenter to a large tank which is then shipped to Sam Smith's in Tadcaster. Smith's pasteurizes and filters the beer to be bottled and force-carbonates it before shipping it to market.

A satisfying conclusion

While the tasting room was not open due to the recent fire, we were able to taste Caledonian's beers in local pubs and found them highly enjoyable – probably hoppier than most Scottish ales, more like Grant's Scottish Ale than, say, Younger's or McEwan's.

The tour was brought to a satisfying close with a friendly question-and-answer session in their cozy business office. An Oregon Brewer's Festival T-shirt is now in the proud possession of the office manager, and a we were treated to a few souvenirs of the brewery. I will be reminded of this excellent tour each time I draw a homebrew into my Caledonian pint glass. Mr. Thomson – cheers, and thank you.