The Cellar

The Official Newsletter of the Colonial Ale Smiths and Keggers

Brewing in Northern France

By Bryan Falman

France is best known for its wines, but in the north on the border with Belgium grapes do not grow well, and the ubiquitous French wine is replaced with French beer. The region of Nord-Pas-de-Calais is rich with beer culture, a place where Dutch-style windmills are more prevalent than grape vines. The Nord department lies along the Belgian border and the North Sea, and parts of the department were originally part of the Counties of Flanders and Hainaut, the remainders of which lie to the north in the Belgian provinces of East and West Flanders and Hainaut. Just to the south lies the Pas-de-Calais department, though not historically part of the Belgian brewing tradition, the region still lies too far north for the cultivation of grapes, and so turns to beer as the drink of choice.

On my recent tour of Belgium, I had the opportunity to visit three of the local French breweries, Brasseries Castelain, La Choulette, and Thiriez. All three make a variety of bières de garde at varying levels of production. Bières de garde, literally translated as "beer for keeping," go through a warm primary fermentation near 24°C (75°F) followed by a lagering period for several weeks near 10°C (50°F). Once lagering is complete, the beer is bottled with new yeast and stored for at least a month at 70°F. At this point, the beer is released for sale, but the beer will continue to mature. One exception to this is Brasserie Castelain's use of pasteurization to stop bottle fermentation prior to selling the beer.

Windmill in Cassel, France

Just off the motorway in Bénifontaine in the Pas-de-Calais department is the Brasserie Castelain, the largest of the three French breweries I visited, producing 45000hL (38350 barrels) of beer annually. Brasserie Castelain produces a wide range of bières de garde under the Ch'ti brand name: Blanche, Blonde, Ambrée, Brune, and Triple. Castelain also produces the blonde beers Maltese and Derby, along with some seasonal brews and

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Brasserie Castelain

the organic Jade. Ch'ti Blonde can be found sold in the US in limited quantities as Castelain Blond Biere de Garde, imported and labeled specially by Vanberg and DeWulf. However, the export manager informed us that they are working on US labeling, and he hopes to be able to sell Ch'ti beers here soon.

In the Nord department commune of Hordain is Brasserie La Choulette, a smaller family run brewery that is an order of magnitude smaller than Brasserie Castelain, producing 4500hL (3835 barrels) annually. Despite their smaller size, Brewmaster Alain Dhaussy manages to produce more than a dozen varieties of beers, including the La Choulette Blonde, Ambrée, and Brune, an blonde beer for Abbaye de Vaucelles, La Bière des San Culottes in honor of the French Revolution, a framboise, and some seasonal brews. Five of the La Choulette beers are imported by Shelton Brothers: Ambrée, Blonde, Framboise, Noël, and Sans Culottes.

Finally, in an old farmhouse in Esquelbecq is the smallest and newest of the breweries, Brasserie Thiriez. The farmhouse originally housed a brewery that closed in 1945, and brewing in Esquelbecq did not resume until Daniel Thiriez stepped up from homebrewing to become a professional in 1996. The original 6hL (5 barrel) brewery in the farmhouse has been replaced with a 20hL (17 barrel) system in a new building along with four 40hL fermenters and an aging cellar. Thiriez produces eight beers styled as biere de Flandres, including the hoppy Etoile du Nord, the spiced amber La Rouge Flamande, and a black ale called La Maline. Shelton Brothers imports Thiriez Ambrée, Blonde, Bière de Noël, and Etoile du Nord (as Thiriez Extra).

Brewmaster Alain Dhaussy and his daughter Florence, the business director, explain their products at the Brasserie La Choulette tasting room

Daniel Thiriez talks beer at Brasserie Thiriez

The Cellarmaster

By Steven Davis

Off-Flavors (Part III)

All homebrewers strive to make beer that is flavorful and delicious. They want their beer to taste like the style they were trying to clone or create from scratch, and never want to have to dump their brew down the drain because it is just undrinkable. One of the biggest culprits to unenjoyable beer is the presence of nasty off-flavors which can turn your precious brew into a form of some unintended beverage which resembles anything but beer. This article is the third of a multi-part presentation on some of these off-flavors, what causes them and what can be done to minimize or eliminate them. In Part III we will look at 3 more of the most common off-flavors: solventlike, light struck and grassy.

SOLVENTLIKE

Identification / Cause: Solventlike is an acetone-like, lacquer-thinner-like, pungent, acrid aroma which is followed up by a harsh, burning sensation on the tongue and possibly the back of the throat. This off-flavor is not desired in any beer style.

Where does it come from?

1) Ethyl acetate caused by wild yeast due to poor sanitation.
2) High fermentation temperatures.
3) Use of non-food grade plastics in the fermentation process.
4) Open fermentation or introduction of oxygen into secondary fermenter.

Prevention: Make sure primary and secondary fermentation is done in properly sanitized containers made of glass or food grade plastic. Maintain fermentation temperatures within the specified temperature ranges for the yeast used. In all cases, maintain temperature < 80°F. Avoid introduction of oxygen into secondary fermentation (e.g. splashing during transfer).

Removal methods: None once established.

LIGHT STRUCK

Identification / Cause: Light struck is simply described as a skunk odor. This off-flavor (odor) is generally undesirable in all beer.

Where does it come from?

1) Degradation of hop iso-alpha acids by light.
2) Beer exposure to light in primary fermenter.
3) Natural or fluorescent light exposure to clear or green glass bottles (can occur in less that 5 minutes).
4) Prolonged sunlight exposure to brown glass bottles.

Prevention: Shielding of glass fermenter from light by use of a dark space, carboy shield or dark towel. Use of brown bottles, which are opaque to 400-520 nm (UV to blue-green) light. Use of chemically modified hop extracts (not readily available to homebrewers).

Removal methods: None once established.

GRASSY

Identification / Cause: The aroma and flavor of fresh-cut grass or new-mown hay.

Where does it come from? Caused by the presence of the aldehyde called hexenal, which is detectable in concentrations of 0.2 ppm. Can be caused by the following processes:

1) Use of poor quality or poorly stored malt.
2) Cracking grains too far in advance of brewing.
3) Use of large quantities of grassy English hops.

Prevention: Use of fresh, high quality malt from a reputable supplier. Proper storage of malt in an air-tight container until use. Do not crack grain until shortly before brewing (less than 5 days preferred). Minimize use of high quantities of grassy style English hops, especially in late additions.

Removal methods: None once established.

The Beer in Front of Me ...

"The Beer in Front of Me ..." is a new feature where you can tell your fellow CASK members about a beer that you are enjoying right now. Be it "true-to-style" or "way-out-there creative," if it is a beer that's your current "favorite" and you want to tell the club about it, e-mail your description to beer@colonialalesmiths.org

This month, Warren Haskell tells us about this year's Vertical Epic from Stone Brewing, the 10.10.10 ...

It hard to say where to start with this beer. The vertical epic series is a special release of one-off brews by Stone starting in 02.02.02 and going until 12.12.12. Each year a completely different recipe is created and brewed with the desire to push the bounderies of flavor and beer itself. This year is no exception, and probably will be considered the rule.

So what does Stone have to say: Ale Brewed with Muscat, Gewurztraminer, and Sauvignon Blanc Grapes, and chamomile. The starting point was a belgian style golden triple, which had chamomile, triticale, and candi sugar added, and apparently since that would just be boring and contemporary they drove up the road to get some fresh pressed grape juice.

But how does it smell, taste, drink, well I am not exactly sure, and there are definitely no guidelines to help out, but here goes.

It pours clean with minimal white head but a continual bubble rising from the bottom. On the nose there is some chamomile character that brings to mind men in lederhosen with giant horns shouting Ricola (but in a good way) some Belgian-y, yeasty, fruity character sneaks by as well. On the palate the carbonation makes it crisp and bright with a pleasant lingering bitterness(hops, chamomile, who knows?). The is a musty (good way) character that comes through as you swallow and breath again that I attribute to Muscat and Gewurzt grapes, maybe a crisp citrus pop from the Sauvignon Blanc or maybe some undisclosed cascade.?! Definite warming character from the 9.5% abv, but on a hot day could be considered a refreshing brew. There is nothing out there that I have had to truly compare this to, maybe a young gueze that hasn't quite gotten tart, or a dry fruit beer with a lot of lemon. This beer is designed to age, for at least 2 years, but maybe longer, and I can see some crazy changes in the future for it, and can't wait to try it on 12.12.12. For those who are interested Stone posts a detailed homebrew recipe for each epic release, however this one has not been posted as of yet! Prost!

Eliminating Glass Carboys from your Brewing Process*

(or How to Avoid a Trip to the ER)* *By Jeff Flamm*

Part 1: Using a Cornelius Keg as a Secondary Fermenter

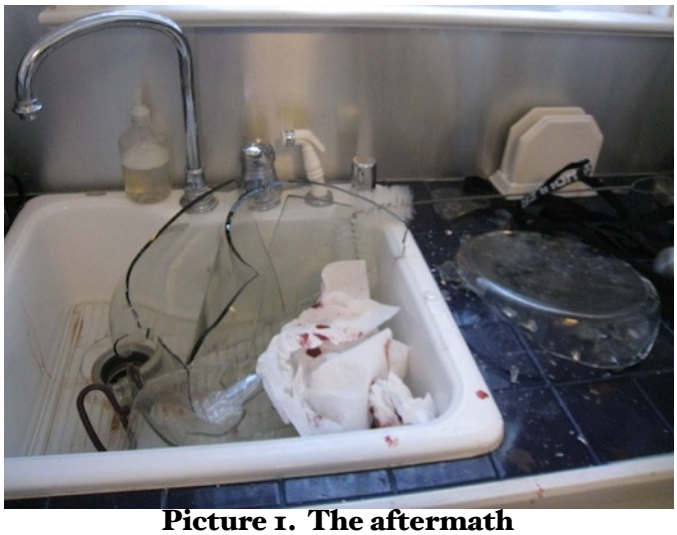
This past March I had an accident while cleaning a 6.5 gallon glass carboy in my kitchen sink. Don't worry. No beer was harmed, however my fingers were not so lucky. I was rinsing the carboy after letting it soak with PBW. As you know a carboy can be a bit slippery and awkward when wet (especially with a little PBW). The carboy slipped from my hands and fell only an inch or two, but hit the edge of the sink. My natural instinct was to try to catch the carboy. Bad instinct. The carboy shattered into many large and small pieces and cut my fingers pretty severely (Pictures 1 and 2).

Reader Discretion Advised (skip ahead to the End Advisory notice if bothered by discussions of injuries) I ended up with four stitches across the top of the 2nd joint of my left middle finger and five stitches between the 1st and 2nd joints on the palm side of my right ring finger. I did not realize until at the hospital, but some glass had also cut a clean diagonal line across and through the nail of my right pinky finger. The nail remained attached. The doctor used dermabond (basically superglue) to hold the nail together at the ER.

It was quite inconvenient to keep both hands clean and dry for about 10 days while the stitches were in place. In addition my left middle finger was in a splint to keep it from bending since the cut was across a joint. With both hands bandaged everyday chores were a bit awkward to say the least. It took about three weeks for my right ring finger to heal and about 3 months before it was no longer tender. The pinky nail grew back after about 3 months. It took my left middle finger longer to heal. Since the cut was across the joint some of the stitches did not take and it keep pulling open. My middle finger finally healed over after about six weeks. It took about two months before I could bend it all the way into a fist. Seven months later, it remains tender and sore when I close my hand tightly **(End Reader Advisory).**

I was quite lucky that no nerves or tendons were damaged and no major arteries or veins were cut. Mostly it was a painful inconvenient experience. An experience I do not intend to repeat. To that end I am eliminating glass carboys from my brewing process as time and budget allow.

Ideally I would like to switch to an all-stainless conical fermenter to replace my glass carboys; cost prohibitive, though cheaper than a trip to the ER! As a more economical solution I



Picture 1. The aftermath

Picture 2. My bandages a few days after my ER visit

Picture 3. Blow-off hose attached to gas in port.

began using a Cornelius keg as a secondary fermenter thus eliminating one instance of glass carboy use in the brewing process (something suggested to me by CASK member Norm Schaeffler). This was a quick and easy change since I already had several corny kegs on hand.

While a typical 5 gallon corny keg is really too small to act as a primary fermenter for a 5 gallon homebrew batch. It works fine as a secondary. Clean and sanitize it thoroughly and then purge it with CO2 prior to racking your beer from the primary. Attach a blow-off hose to the gas in port for use as an airlock (picture 3).

One problem to using the corny keg as a secondary is that I have found that their lids often do not seal well unless you put little CO2 pressure into the keg to help compress the lid into the o-ring to make the seal. I looked for some oversized o-rings to help make a tighter seal, but did not readily find anything suitable. [**Editor's Note:** Williams Brewing sells an oversized o-ring just for this purpose. It is also a little bit softer than a standard keg o-ring. Item #:D11] I did come up with a simple solution to keep a tight seal even without pressure on the keg. I cut up a used hotel key card and placed a piece of the plastic under each foot of the lid lock (picture 4). The plastic shims add just enough height to the feet to create enough compression on the lid o-ring to make a good seal even without any CO2 pressure on the keg. Old store gift cards and hotel keys are useful for many home projects such as durable shims or even as throwaway mixers for epoxy.

When it is time to bottle or keg your beer you can use CO2 to push the beer to a clean keg and reduce the chance of oxidation. Use CO2 to push a small amount of beer out of the fermentation keg until it runs clear (I use a picnic tap). This will remove any sediment near the dip-tube of the fermenter. Purge the sanitized target keg with CO2 (add your priming sugar prior to purging the target keg unless you plan to force carbonate). Attach a short beverage line jumper between the beverage out ports of the two kegs. Attach a blow-off hose to the gas in port of the new keg to allow it to vent as you transfer the beer from the fermentation keg. Then use CO2 to push the beer from the fermentation keg to the new keg (picture 5). Remove the blow off hose and set the keg aside to keg condition, bottle directly from the keg or if you prefer force carbonate.

Picture 4. Place plastic shims under lid lock feet to ensure a tight seal.

Picture 5. Setup to transfer from secondary fermenter to final keg.

Using a corny keg as secondary fermenter offers many advantages over a glass carboy.

Most importantly to me it reduces the chance of breaking a glass carboy and seriously injuring yourself. You don't have to lift a heavy awkward carboy. It eliminates the chance of your beer being light struck. They are easy to clean and sanitize. They take up less floor space in your closet or lager refrigerator or wherever you store your fermenting wort. Another advantage of using a Cornelius keg is that it is easy to move the beer to

the final keg using CO2 and a beverage line jumper. This reduces the chance of oxidation and contamination.

Corny kegs are actually cheaper (used) than a glass carboy (and much much cheaper than a stainless steel conical fermenter). Typically they cost between $25 and $35 used. Slightly more if reconditioned. A set of o-rings is about $3 to rebuild one.

See the article Keg Maintenance by Dave Bridges in the June 2006 issue of *The Cellar* on how to rebuild a keg and where to find inexpensive replacement o-rings (www.colonialalesmiths.org/Newsletters/06-06-June.pdf).

Our local homebrew shops HomebrewUSA (www.homebrewusa.com), Weekend Brewer (www.weekendbrewer.com) and Wine and Cake (www.wineandcake.com) sell reconditioned kegs and parts. Pickins Fire Extinguishers in Hampton sells used un-reconditioned kegs with a discount for bulk purchases.

I have been using Cornelius kegs as a secondary fermenter since April and have not had any issues with contamination (or injuries) and am glad I made the switch. To be continued: part 2 will be a review of the PET plastic BetterBottle® as a primary fermenter.

Prost,

Jeff

CASK Member Profile: Bryan Falman

Full Name: Bryan Falman

Hometown: Norwich, CT

Town of Residence: Gloucester, VA

Occupation: Wind Tunnel Engineer at NASA

Years Brewing: 9

Favorite Beers to Brew: Belgian styles

Favorite Commercial Brew: Terrapin Rye Pale Ale, Oud Beersel Oude Gueze Vielle, anything brewed by a monk.

Favorite Brew Pub or Beer Bar: Bier Garden in Portsmouth and Cambrinus in Brugge

How did you started brewing?: A friend in college was a homebrewer that supplied good beer and let me help with brewing and bottling, though now I see it as a ploy to get me to do his work for him!

Type of Brewing (Extract, Partial Mash, All-Grain): Mostly extract, but I occasionally do a partial mash. Looking forward to moving on to all-grain brewing in the new year.

Why do you brew?: I enjoy making beer and sharing it with friends. I also find the brewing process relaxing.

Awards, Beer Related Associations, etc: AHA member, have won a silver and two bronzes at the Dominion Cup and the Beer Blitz.

The CASK Calendar of Club Events and Competitions

Plan your brewing schedule now and hit as many club-only and other competitions as possible.

November - Mead
December - Spiced/Christmas Beers

2011
January - English Pale Ales (**COC**)
February - Dark Lager
March - Bock (**COC**)
April - Wood Aged Beer (**COC**)
May - Spring Party
June - Amber Hybrids
July - IPA
August - Mead **(COC)** / Cider Tasting
September - Specialty/Experimental/Historical **(COC)**
October - Fall Party
November - Hefeweizen **(COC)**
December - Stouts

You, yes you, can add items to the CASK calendar and keep your fellow club members informed about beer-related happenings in the area!

Either:

1. logon to the CASK Message Board to find out how to add events to the calendar or

2. E-mail information about the event to calendar@colonialalesmiths.org

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P.O. Box 5224
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CASK meets the third Thursday of the month, usually at the Green Leaf Gourmet in New Town section of Williamsburg. But always, check the website, www.colonialalesmiths.org, first.