

# Beer

- fermentation process creates natural carbonation, which is often removed during processing in mass produced beers and replaced w/ forced carbonation.

- 1804: William IV, Duke of Bavaria → Reinheitsgebot: only water, barley + hop

# Beering

3 main fermentation methods: warm, cool + spontaneous.

↳ secondary fermentation may take place in cask or bottle.

## OTHER BREWING METHODS:

1. Barrel Aging - Lambics fermented in oak

- Bourbon-barrel aged

- Cantillon + The Paley Barrel (Berkeley, CA) make exclusively barrel aged beer.

2. Burton Union (UK) - recirculating fermentation system

- casks connected by a common trough

- separate yeast foam from beer + allowing the beer to flow back into cask & continue fermentation.

- Marston's Pedigree

3. Burtonisation (UK) - adding sulphate, often in the form of gypsum to water used for brewing beer, to bring out flavor of hops.

- named for good water source of Burton breweries.  
- used for pale beers - pale ale, Czech pilsner, Dortmund

4. Double Dropping - wort is transferred mid-fermentation to a lower chamber

↳ leaves behind TRUB

↳ aeration of wort

↳ diacetyl is produced

- Wynchwood Brewery

Brian - yeast foam

TRUB - inactive yeast + excess, sticking + more protein from malted barley

5. Yorkshire Square
- two chamber system, where fermentation happens below & yeast is allowed to settle on deck on top.
  - beer is pumped over and then beer can be easily removed from yeast.
  - residual yeast is allowed to continue to ferment, producing extra alcohol + CO<sub>2</sub>, which mellows beer
- where CASK-CONDITIONING originated.
- predecessor of "round square"
  - still used by Samuel Smith, Marston's, Black Sheep, Cameron's, Treakston.

6. Krauseing - see conditioning

# Brewing Process

1. MALTING - the process where barley grain is made ready for brewing

1. 40 hour steeping w/ water
- II. Germination - spread out on the floor for 5 days
- III. Kilning - drying in a kiln

→ Now, the grains are termed MALT

2. MILLING - breaks down kernels, exposes enzymes that break down sugars + carbohydrates, separates seed from husk.

3. MASHING - converts the starches released during mashing into sugars that can be fermented. → amylase, protease, glucoamylase  
- milled grain mixed w/ hot water in a mash tun.  
usually takes 1-2 hours

→ Now, the MALT is termed WORT

- the wort is strained through the bottom of the mash tun in a process known as lautering
- prior to lautering, the mash temperature may be raised to 167-172°F (known as a mash out) to free up more starch and reduce mash viscosity.
- Additional water may be sprinkled on the grains to extract additional sugars - a process known as sparging.

4. BOILING - the wort is moved into a large tank known as a Copper or kettle, where it is boiled w/ nops, and sometimes other ingredients like herbs or sugar

Not as effective as a whirlpool at removing debris from hop pellets, better at whole hop leaves.  
HOPBACK  
- acts as a sieve/filter by using whole hops to clean debris/trub from the unfermented wort, and also increases hop aroma. It is a chamber b/w the kettle & the wort chiller.

- boiling process serves to:
  - terminate enzymatic processes
  - precipitate proteins
  - isomerize hop resins - extracting bitterness + aroma
  - concentrate + sterilize the wort
- at the end of the boil, the hopped wort settles to clarify in a vessel called a whirlpool, where the wort is separated from the hop trub.



# BREWING PROCESS

5. FERMENTATION
- wort goes through a cooling chamber after boiling so that yeasts may be added
  - most breweries use cylindrical vessels or CCVs, which have a conical bottom + a cylindrical top → can be used to ferment + condition in the same tank.
  - open top vessels - to acquire wild yeasts

\* Three main fermentation methods: warm, cool + wild

1. warm - *Saccharomyces cerevisiae*  
(59-68° F)
2. cool - *Saccharomyces Pastorianus*, usually stored after (40-50° F) fermentation for ~30 days near freezing point + the sulphur components developed during fermentation dissipate.
3. Spontaneous/Wild - no yeast inoculation  
- *Brettanomyces*

6. CONDITIONING - after primary fermentation, beer is usually transferred to a second container and removed from the trub.

- Kräusening - conditioning method in which fermenting wort is added to the finished beer. The active yeast will restart fermentation in the finished beer, and so introduce fresh carbon dioxide → can be used to bottle condition, too.
- Lagering - storage @ near freezing temperatures for 1-6 months while still on the yeast.
  - can clear up various chemicals, acids + compounds → cold precipitation + filtering to clean up beer.
- Secondary Fermentation
- Bottle Fermentation - addition of yeast and possibly sugar
- Cask conditioning - unfiltered, unpasteurized & served from cask.

"REAL ALE" → "CASK ALE" → matured by secondary fermentation in the container it is dispensed w/o additional Nitrogen or Carbon Dioxide pressure.

"BRIGHT BEER" → unpasteurized beer that has been racked off yeast

# BEER STYLE

1. Fermentation method
  - WARM, TOP-FERMENTING (60-75°F)
  - COOL, BOTTOM-FERMENTING (50°F)
  - SPONTANEOUS
2. Appearance
  - color - measured by systems such as EBC, SPM, or Lovibond
  - clarity
  - nature of head
3. Aroma
4. Flavor - IBUs (International Bitterness Units)
5. Mouthfeel - Carbonation, Nitrogen, etc.
6. Gravity - Plato scale commonly measures
  - often measured w/ a hydrometer
7. yeast - other microbes in addition to yeast can be used
  - ↳ *Brettanomyces*
  - ↳ *Lactobacillus*
8. Grains - kilned pale malts form the base of most beers
  - ↳ Boles use Munich malt
  - ↳ Rauchbier + Quätters use smoked malt
  - ↳ corn + rice - fillers > originally used by Miller, Coors + Busch ~~to~~ to make lighter styles of beer to please the American palate, not as fillers.
9. Hops - Saaz = Czech pilsners
  - (female flower clusters of seed cones of the hop vine)
  - Hallertau & Tettnanger = noble German hops
  - Kent Goldings = English
10. Water - Two beers noted for water specificity
  - ↳ Pale Ale (Burlington)
  - ↳ Pilsner
11. Other ingredients:



# SOUP BEER

## 1. **BEKNER WEISSE** (Bowl)

- wheat + barley, low alcohol, tart, low hops
- often combined w/ Sympys traditionally
- Berliner kindl + Schottweiss are the only two German breweries left making it. Others include DeGarde in Oregon, J. Wakefield in Miami, Dieu du Ciel in Canada + New Glauw in NE.

## 2. LAMBIC - **FAPO** (Stem glass, tulip, tumbler)

- well carbonated & sweeter than gueuze
- traditionally, a lambic blended w/ a lighter, freshly brewed, sweetened beer (referred to as meertsbier & not necessarily lambic)
- today, usually just a sweetened lambic, pasteurized to prevent refermentation
- 3 Fonteinen, Cantillon, Tilquin, Lindeman's, De Cam

## 3. LAMBIC - **MARS**

- a weaker beer made from the second runnings of a lambic brewing. No longer commercially produced. In the 1990s, Boon's made one called Lembeek's 2%, but it's been discontinued.

## 4. LAMBIC STYLE - **FRUIT** (flute, stem glass, tulip, tumbler)

- Kriek, Framboise, Pêche, Cassis
- "Dud" denotes a more sour style
- Cantillon, 3 Fonteinen, Hanssens, Lindemans

\* Lambic - comes from Lembeek, a municipality near Halle, Belgium

\* Lambics are generally 60-70% malted barley & 30-40% unmalted wheat

## 5. LAMBIC STYLE - **GUEUZE** (flute, stem, tulip, tumbler)

- made by blending young (1 yr. old) and old (2-3 year old) lambics → causes refermentation.
- "Dude Gueuze" refers to traditional, unsweetened version
- 3 Fonteinen, Girardin, Cantillon, Tilquin, Boon, Hanssens, Lindemans

\* hops used as a preservative not to add character

## 6. LAMBIC STYLE - **UNBLENDED** (flute, stem, tulip, tumbler)

- very rare, tend to be still
- most are not bottled

\* Lambics get their character from microbes indigenous yeasts of the region valley SW of Brussel

## 1. SOUP **RED/BROWN** (Snifter, tulip, fumbler)


- Flanders Red Ale → Rodenbach is the archetype, Duchesse de Bourgogne
  - often uses *Lactobacillus*
  - often barrel aged
- Flanders Brown/Oud Bruin
  - undergoes secondary fermentation, extended aging, both in cask + bottle
  - Hiefman's, Petrus + Hartog Jan

## 8. SOUP **WILD ALE** (snifter, tulip, fumbler)

- encompasses non-traditional sour beers - typically brewed w/ ale yeast & then inoculated w/ souring bacteria + yeasts - typically *Lactobacillus*, *Brettanomyces*, *Pediococcus*, *Acetobacter*.



# BELGIAN-STYLE ALES

1. **ABBEY DUBBEL** (Trappist glass  or tulip)
  - 6.5-8% ABV
  - Typically bottle conditioned
  - dark, malty, yeasty, strong ales
  - St. Bernardus Prior 8, Westmalle Dubbel, Ommegang Abbey Ale, Chimay Red
2. **ABBEY TRIPEL** (Trappist glass or tulip)
  - lighter malts than dubbels, but more hops - up to 45 IBUs.
  - high alcohol, 8-10%
  - Tripel Karmeliet, Ailagach Tripel, Russian River Damnatio, Chimay White, St. Bernardus Tripel, Unibrou La Fin du Monde, St. Feuillien Tripel
3. **ABT / QUAD TRIPEL** (Trappist glass)
  - ultra strong Trappist + Abbey ales, 10+ % ABV
  - Pioneered by La Trappe
  - Ales are w/ darker malts, quads w/ pale
  - very strong, malty, w/ little hops
  - bottle conditioned
  - Westvleteren 12, Rochefort 10, La Trappe Quadrupel, St. Bernardus Abt 12, Unibrou Trois Pistoles + La Terrible
4. **Belgian ALE**
  - Belgian-styles < 7% ABV that do not fit into another category.
  - Orval, Westvleteren Blonde, Ailagach Confluence
5. **Belgian STRONG ALE**
  - would include dubbels, tripels, etc.
6. **BIERE DE GARDE** (stem glass or tulip)
  - traditional classification for farmhouse styles of France
  - generally a warm fermented strong pale ale
  - "beer for keeping" → brewed in the winter or spring to avoid unpredictable problems w/ yeast in the summer (bacteria, spoiled)
  - kept until the next summer to drink.



## 7. SAISON (Tulip)

- fruity esters w/ large, foamy head. Herbs + citrus
- 5-8% ABV
- light to med. body w/ high carbonation, often bottle-conditioned
- many full farmstead beers, Saison Dupont, Fantome
- originated in wallonia, Belgium (french-speaking)
- brewed in cooler months & stored for summer

# ANGLO-AMERICAN ALES

## 1. **AMBER** (Kolsch glass / high ball)

- German for "old beer" - specialty of Disseldorf
- Name comes from the fact that it's an ale - rare for Germany and an older brewing style.
- cooler fermentation than most ales, making it lighter than its rough equivalent - the British/English ale.
- Venice Spike, Freigest Hoppeditz

## 2. **AMBER ALE** (English pint / shaker) (☞ vs. ☐)

- Amber malt + Crystal malt
- Used in Australia, France + North America
- Maine Beer Red Wheelbarrow, Maine Beer Zoo, Matt Shovel (AV)

## 3. **AMERICAN PALE ALE** (Lager glass, shaker, tulip)

- Sierra Nevada Pale Ale - 1980. Anchor Liberty Ale - 1975
- defined by the use of American hops - typically Cascade
- S-67. Ale
- Three Floyds Alpha King, Half Awe Daisy Cutter
- many of the Hill Farmstead (Greensboro, VT) + Trillium (Boston) beers

## 4. **AMERICAN STRONG ALE** (snifter, tulip)

- Catch-all category, similar to English Strong, but w/ more hops.
- Lost Abbey Deliverance (San Marcos, CA), Stone Arrogant Bastard (Escondido, CA), Two Brothers Cane + Ebel (IL)

## 5. **BARLEY WINE** (snifter)

- brewed from specific gravities of as high as 1.12 → 8-12% ABV
- American tend to be lighter & hoppier, British tend to be darker + less hopped (in color)
- First American Barley wine - Anchor's Old Foghorn
- Goose Island Bourbon County Barley wine, Lost Abbey Angel's Share, Sam Adams Utopia (27% ABV!), Three Floyds Behemoth (munster, IN)



## 6. BITTER (English Pint)

- English term for Pale Ale. Can vary in color from gold to amber and from 3-7% ABV.
- Several words used for variations in beer strength - best bitter, special bitter, extra special bitter (ESB), and premium bitter.
- "Session" bitters tend to be hoppier
- Light Ale → Session/Ordinary Bitter (up to 4.1% British IPAs here) → Best/Special Bitter (4.2-4.7%)

Premium/Strong Bitter/ESB

(4.8%+)

(ESB is a brand name owned by Fuller's)

## 7. BROWN ALE (mug, Shaker)

- Can include sweet, low alcohol beers (manns Original Brown), med. strength amber beers of moderate bitterness (Newcastle Brown) and malty, hoppy beers (Sierra Nevada Brown)

## 8. CREAM ALE (footed pilsner, lager, Shaker)

- A mild, pale, light-bodied ale made by using a warm fermentation (top or bottom) and cold-lagering or by blending top & bottom fermented beers.

- mikkel cream ale (Copenhagen), Ale Smith Cream Ale (San Diego)

## 9. ENGLISH SPONGE ALE (English Pint/Smifter)

- 6-10% ABV
- JW Lees Manchester Ale, Fuller's 1845, Sam Smith's Yorkshire Spingo


\* The term "pale ale" in England is used to signify a bottled bitter.

## 10. INDIA PALE ALE (IPA) - IMPERIAL IPA (Shaker, Tulip)


- hoppier, stronger style of Ale that could survive trip from Britain to colonies in India.
- East Coast IPA vs. West Coast IPA (maltier) (hoppier)
- American hops: Cascade, Citra, Simcoe, Amarillo, etc.
- Bell's two hearted (Michigan), Maine Beer Lurch, Surly Furious (MN)
- Imperial IPA - hoppier + more alcohol (Dogfish 60, 90, 120 min) 100IBU+  
Brews Broadhead - Bell's hoodlum - Russian River bud: 120 min 100IBU+

11. **Irish (RED) ALE (English pint)**
- < 5% ABV, low hops
  - traditional: Ottawa's, Smithwicks
  - modern: 3 Floyds Brian Bon, Boulevard Irish (Kansas City, Mo)

12. **Kölsch (Kölsch glass - highball)**
- native to Cologne, Germany
  - moderate bitterness w/ prominent hop flavor (typically Spalt, Tettnang or Hallertau)
  - many brewed w/ wheat malt to create a smoother, sweeter taste
  - top fermented but at cooler temps, with some cool lagging after brewing.
  - Cologne brewers: Früh, Gaffel, Reissdorf, Pfaffbrau
  - P&G product!
  - Victory Kölsch (PA), Trillium Big Sprung (Boston), Sierra Nevada Kölsch (Chico, CA)

13. **Mild Ale (English pint)**
- mild originally referred to young, unaged - now refers to limited hoppiness
  - 3-4% ABV
  -  **"Boilermaker"** - 1/2 pint of mild ale mixed w/ a 1/2 pint of bitter brown
  - Hogshead Barge's mild, Stone Supremacy Self-Conscious Ale, Hair of the Dog Little Dog (Portland, OR)

14. **Old Ale (English pint, Snifter)**
- typically, a darker maltier style of British beer
  - breakfast Old Peculier, Fuller's Vintage Ale, North Coast Old Spoke Ale, Bell's Third Coast, Hambleton Old Dubh (Scotland)

15. **Scottish Ale (Thistle )**
- name given to a strong pale ale from Edinburgh in the 19th c.
  - also called Wee Heavy
  - those brewed in the US tend to be of a higher ABV - typically 7% +
  - Caledonian's (Scotland), AleSmith Wee Heavy (San Diego), Founders Backwoods Pastard
  - often caramelized malts are used to mimic Caledonian's style



16. **Scottish Ale** (English pint Histle)

- dark, malty & full bodied
- many use peated malt
- S-89. Ale
- Three Flays Robert the Bruce, Redast point Piper Down, Southampton Scottish Ale.

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# STOUTS + PORTERS

1. **BALTIC PORTER** (English pint, Shaker, Snifter)
  - an Imperial stout from the Baltics - historically bottom fermented @ low temperatures
  - sweet + strong
  - Kormoran Imperium Porcum (Poland), Smuttynose Baltic Porter (New Hampshire), Hill Farmstead Fear + Trembling (VT)

2. **BLACK IPA** (Shaker, Tulip)
  - vaguely defined category - hoppy + darkly matted w/ higher alcohol.
  - Stone Sublimely Self Righteous (Escondido), Mikeller Beer Trip Breakfast (Copenhagen), Three Floyds Blacker (Munster, IN)

3. **DRY STOUT** (English pint, Shaker)
  - "Irish-style" stout, low gravity w/ bitterness ranging between 30-45 IBUs.
  - often served w/ nitrogen - with all the accompanied effects: low carbonation, extra thick head, lifeless palate, muted flavor + aroma
  - Guinness! (5%) - "dry" as opposed to Britain's "sweet"

4. **Foreign Stout**
  - began w/ the beer that would become Guinness Foreign Extra Stout → stronger, extra-hopped version for withstanding long journeys overseas.
  - 3 Floyds Black Sun (IN), Lion Stout (Sri Lanka), Allagash Black (ME)

5. **Imperial Porter**
  - Fall w/ a traditional porter, a Baltic Porter or an imperial stout. 1.5% + ABV, but without the overt roastiness of an imperial stout.

**PORTER vs. STOUT**

- historically, stout was just the strongest version of a port. ...

- the only main difference that can be agreed on is the kind of malt used. Porters use malted barley + stouts use roasted, un-malted barleys.

BEER 11



# WHEAT ALES

## 1. AMERICAN WHEAT

- Hefeweizen w/ the banana + clove flavors, and w/ higher carbonation.
- Blue Moon, Bull's Head

## 2. BEURLER WEISS (Pint Glass or Goblet)

- roots in Munich, early 19th century
- very sour, high carbonation
- often served w/ a raspberry syrup (himbeer) or woodruff (waldmeister) to help cut the sourness.
- Dogfish Festina Peche, Bell's Carman, Professor Fritz Bräu
- PGI protected by the EU.

## 3. HEFEWEIZEN AKA WEIZENBIER OR WEISSBIER

- "yeast" + "wheat"
- unfiltered
- must be top fermented, and at least 50% wheat
- specialized strains of yeast create banana + clove flavors
- Ayinger, Schneider + Sons, Weihenstephaner  
Bräu Weiss weiss, Hefeweissbier

## 4. WITBIER

- Belgium's answer to the wheat ale
- often flavored w/ coriander + orange peel
- Blue Moon, Hoegaarden, Allagash white, St. Bernardus Witbier, Hitachino white ale

## 5. DUNKELWEIZEN

- Darker style of German wheat beer (S. Germany)
- Ayinger Ur-Weisse, Weihenstephaner Dunkel

## 6. GOSE (Highbau)

- unfiltered wheat beer made w/ 50-60% malted wheat
- from Leipzig, just south of Berlin in eastern Germany
- addition of sea salt & coriander
- fermented w/ *Lactobacillus* for sourness
- Gasthaus Leipziger Gose

## 7. KRISTALLWEIZEN

- filtered Kefenweizen



# LAGERS

## 1. AMERICAN LAGERS

A. AMERICAN ADJUNCT LAGER - Budweiser, PBR, MGD, etc.  
- often made w/ rice + corn

B. AMERICAN AMBER/RED LAGER - YVENGLING, BROOKLYN

C. AMERICAN DOUBLE/IMPERIAL PILSENER - DOGFISH MY ANDMIA

D. MALT LIQUOR - usually higher alcohol (6-9%) w/ lots of adjuncts. Either more fermentable sugars or specialized enzymes to further breakdown starches create higher ABV.

- Miller ALE ENGLISH, PBR's COLT 45

E. AMERICAN PALE LAGER - No adjuncts

- Sapporo, Kirin, Anchor, Michelob

F. CALIFORNIA / COMMON STEAM BEER

- Brewed @ higher temps, more quickly

- Anchor "STEAM" BEER.

## 2. CZECH PILSENER

- city of Pilsen in the western Czech Republic

- hoppiness prominent - Saaz hops → must have 28 IBUs to be named Czech Pilsener

- Sierra Nevada Summerfest, Pilsner Urquell, Lagunitas Pils

## 3. GERMAN PILSENER

- first brewed in Bohemia, a German speaking province in the old Austrian Empire

- Head is rich + dense, well-hopped, pale. Drier + more bitter than the Czech Pilsener.

- Einbecker, Beck's

## 4. EURO-STYLE PILSENER

- can be sweeter, and w/ adjuncts

- Stella Artois (Belgian), Amstel + Heineken (Dutch)

## 5. Bock

- first brewed in the German town of Einbeck → many people believe the name is a bastardization. "Ein bock" means billy goat → will often appear on labels.
- traditionally, a bock is a sweeter, stronger, less hoppy style of lager, and darker.
- Shiner Bock (Texas)

A. Doppelbock - stronger bocks!  
- Ayinger Celebrator, Spaten Optimator, Bell's Consecrator

B. Eisbock - freezing off a portion of the water & removing it from the beer  
- big body, flavor + alcohol content  
- Schneider Aventinus Eisbock

C. Maibock / Helles Bock  
- lighter + hoppier than traditional bocks.  
- a helles lager brewed to bock strength  
- Ayinger Maibock, Hofbräu Maibock

## 6. Dortmunder

- made popular in Dortmund, Germany - pale lager
- Great Lakes Dortmunder Gold (Cleveland, Ohio)

## 7. Kellerbier / Zwickelbier

- unfiltered + unpasteurized lagers

## 8. Märzen / Oktoberfest

- Märzen - brewed in March, cold-stored over the summer months, then consumed in ~~October~~ late summer. All remaining bottles were consumed at Oktoberfest.
- fuller, darker style of lager
- Sam Adams Oktoberfest, Ayinger Oktoberfest, Spaten Oktoberfest, Great Lakes Oktoberfest.



## 9. MUNICH HELLES LAGER

- Helles = bright → the German answer to Czech Pils
- Weihenstephaner Original, Hofbräu Original, Victory Helles (Doughings, PA)

## 10. MUNICH DUNKEL LAGER

- Dark, smooth + complex w/ being heavy
- Hofbräu Dunkel

## 11. RAUCH BIERE

- Smoked beer!
- Schlenkerla

## 12. SCHWARZBIERE

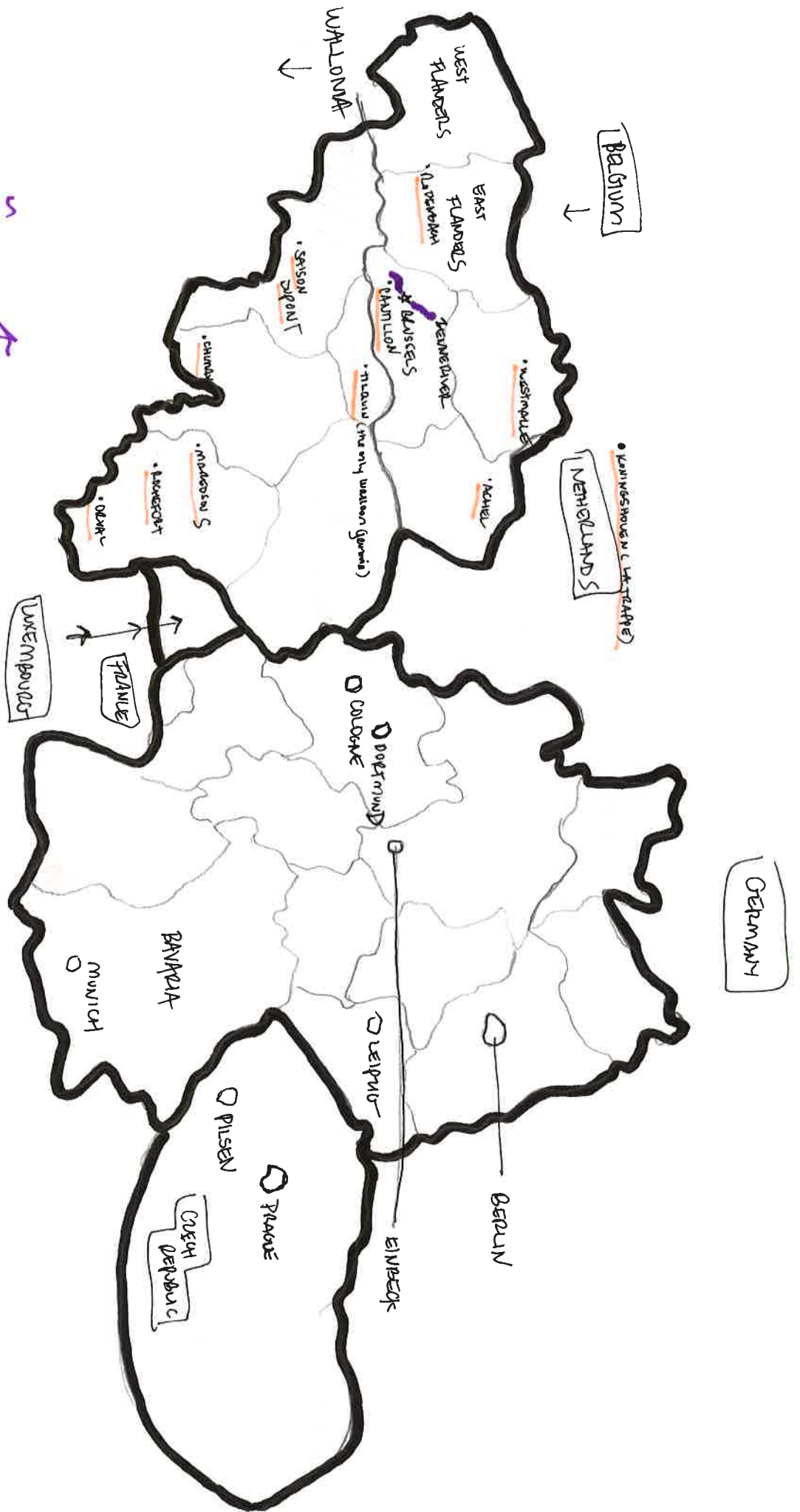
- "Blackbeer" - tend to be lighter in body
- Sam Adams Black Lager, Sprecher Black Bavarian

## 13. VIENNA LAGER

- different boiling process → subtle hops, crisp, w/ some RS.
- Negro Modelo, Sam Adams Boston Lager, Great Lakes Eliot Ness

# BEER

CLASSIC BEER -  
PRODUCING REGIONS  
+ BREWERIES





# CIDER

- Cider apples: high in sugar content, but dry in texture & quite bitter.

- ① SWEETS - low acid + tannin
- ② SHARPS / ACIDIC - high acid, low tannin
- ③ BITTERSWEETS - low acid, high tannin
- ④ BITTERSHARPS / BITTER - high acid + tannin

} a mix of all is considered beneficial for cider production

- Production:

- ① Scrapping & Pressing
  - scrapping is grinding down into a pomace
- ② Fermentation
  - occurs slower @ lower temps than most fermentations
- ③ Blending & bottling
  - generally bottle conditioned w/ a small amount of sugar to create carbonation

## FRANCE

• Normandy + Brittany

- Cidre Doux - < 3% ABV, > 35 g/L RS
- Demi-Sec - 3-5% ABV, 28-35 g/L
- Brut - 4-5% ABV + < 28 g/L (includes "dry" and "off-dry")

## KEEVING

- used to make cidre bouché (cider under w/ck)  
 - underlying principle is to remove nutrients from juice w/ a day-long pre-fermentation maceration (pectin leaches nutrients as it oxidizes). this ensures a long, slow fermentation, which finishes & can be bottled while still sweet w/o any fear of excessive fermentation later.

other notable producers of French cider: Domaine de Kerveguen, Minoiere, Cyril Zang, Bodatto

## DUPONT

- w/tn Pays d'Arge
- Cidre Pouché
- Cidre triple - made w/ a selection of bitter apples, 3 fermentations, 14% ABV.
- Cidre Collette - Champagne method

## ERIC BORDELET

- in Normandy
- Biodynamic
- Sommelier who returned from Paris to work his family's orchard.
- Sidre Brut, Sidre Brut Tendre (off-dry), Sidre Argelette (19 varieties, ancestral method of maceration)
- Poire Bretonne, Poire Granit (300 year old trees!)

# CIDER

## GERMANY

- Apfelwein - sour, tart taste - 5.5% - 7% ABV

### MOSTEREL REVSCH

- Eismost
- Schweiner Birnenmost

### ANDREAS SCHNEIDER

- Apfelwein

## IRELAND

### MAGNER'S

## SPAIN

- Galicia, Asturias, Cantabria + Basque Country have strong traditions
  - ↳ accounts for 80% of the cider production of Spain
  - ↳ "El Gaitero" is a very common cider that can be found in all of Spain, but cheap and more akin to French ciders
  - ↳ traditional asturian cider is 4-8% ABV, dry, and fairly flat until it is aerated.

### VALERAN

- Asturias  
- 20 manzanas ice cider

Also: Jabanco, Poma Area, Isastegi  
→ juice is frozen pre-fermentation

## U.K.

- two main cider traditions - the West Country & the east Kent
  - ↓
  - made w/ a higher proportion of the cider apples - richer in tannins & sharper in flavor.
  - ↓
  - made from culinary & dessert fruit - clearer, more vinous, lighter in body & flavor. (Strongbow, Bucklehorn - mass produced)
- tend to be drier & stronger than French ciders.
- Craft producers:
  - Dragon Orchard
  - Oliver's
  - Dunkerfons

### Scrumpy

- can generally refer to locally made, small production cider (usually West Country style)
- historically referred to a more rough style, or apples covered during wind fall.

## CANADA

- Quebec cider is a traditional alcoholic beverage.
- ABV 11% - 13%
- Ice Cider has become a very popular style here ↓
- Very revered producer: La Ferme Cachée de la Pomme Neige.

## USA

- Notable producers: Edeon (Newport, VT), Millstone (Monkton, MD), Vireo (Michigan)