

COGNAC

"PARADIS" → Cellars that store the 25L. glass
bonbonnes. Hennessy has the largest
(also has a cognac named Paradis)

derivation of
the Latin word
for "plain"

COGNAC App

- geographic designations (added in 1938): Grande Champagne, Petite Champagne, Borderies, Fins Bois, Bons Bois, Bois Ordinaire (Bois à Terrou)
- encépagement: Colombard, Folle Blanche, Montils, Sémillon, Vgni Blanc, plus a max 10% Folignan (Folle Blanche x

called St. Emilion here ←

- Vgni Blanc makes up 98% of vineyard acreage

• min ABV = 40%

• base wines:

- must contain 7-12% ABV

- may not be chaptalized

- the use of sulfur dioxide is prohibited during fermentation

- most go through MF.

• distillation procedures:

- base wines must be distilled twice in a Copper Charcutais pot still

- for distillation, the copper boiler must be heated over an open flame → gas more common than coal or wood these days.

- still used for first distillation < 140 hl capacity, 120 hl volume

still used for 2nd distillation < 30 hl capacity, 25 hl volume

- after second distillation, may not contain more than 72.4% ABV

- distillation must be complete by 3/31 of the year following harvest

• authorized additives:

- sugar, caramel + oak chips may be used for final adjustment + coloring

- distilled & demineralized water may be added to reduce proof

• aging: Cognac must be aged in oak casks for a min. of 2 years (from 4/1 of year after harvest)

→ measured starting 4/1 the year after harvest.

• Age INDICATIONS - * All refer to the youngest cognac in the blend *

- VS / *** / de Luxe / Grand Choix / Surchoix: min. 2 yrs. old

- Supérieur: min. 3 yrs. old

- VSOP / Réserve: min. 4 yrs. old

- VSOP / Grand Réserve: min. 5 yrs. old

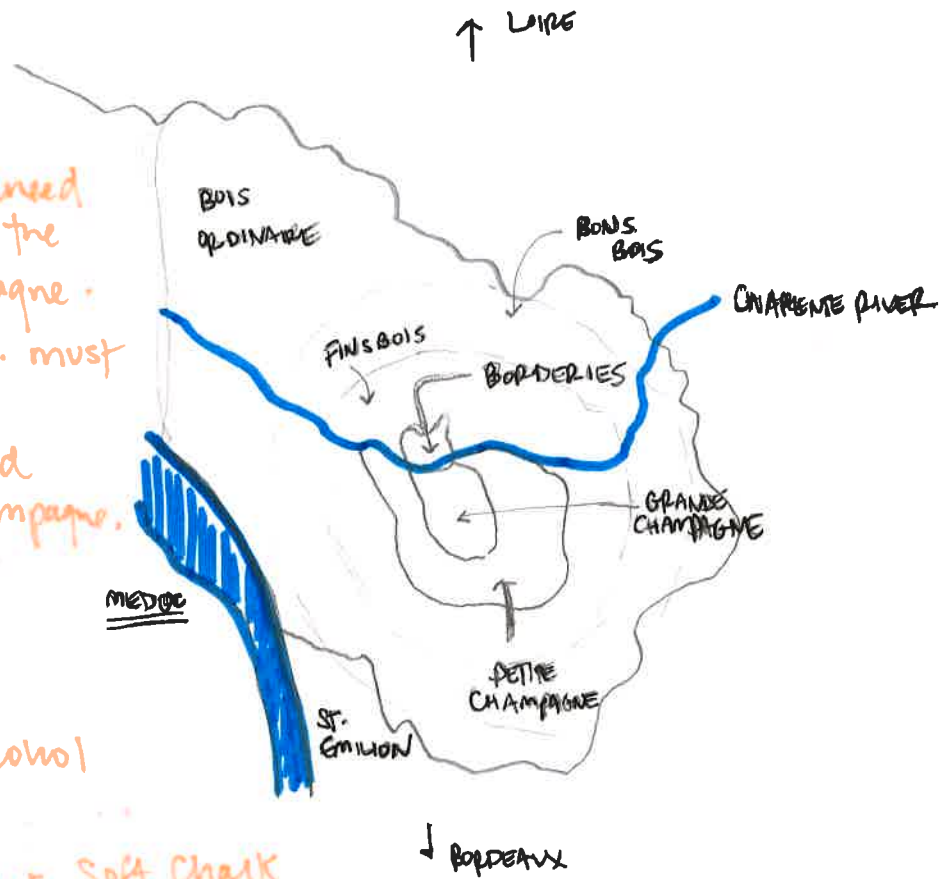
- XO / Napoléon / Extra / Foyal

Très Vieux / Vieille Réserve:

min. 10 yrs. old (in 2018, X will indicate min. 10 yrs. old)

COGNAC

- Additional label terminology:
 - Fine Champagne: min. 50% sourced from Grande Champagne, w/ the remainder from Petite Champagne.
 - If labeled as subzone, 100% must come from that subzone.
 - "fine" may be applied toward labelling Grande or Petite Champagne, but does not mean anything.
 - vintage indicates year of harvest.



- Max. yield: 14 hl/ha of alcohol
- Primary soil types
 - B + P Champagne: Limestone + soft chalk
 - Fins Bois: "groies" (hard red limestone) + clay
 - Bons Bois + Bois ordinaires: Sand

ESPRIT DE COGNAC AOP

- product of a third distillation from Alambic Charentais, 80-85% ABV
- exclusively destined for the production of sparkling wines → ie liquor d'expédition

PINEAU DES CHARENTES AOP

- Styles + Encépagement
 - Vin de Liqueur Blanc
 - principal varieties: Ugni Blanc, Folle Blanche, Colombard
 - accessory varieties: Semillon, Sps, montils, Jurançon White, White Merlot, Merlot, St-François Medier, Cab, Cab Franc
 - Vin de Liqueur Rose: Cab, Cab Franc, Malbec + Merlot
- Alcohol: 16-22%
- No chaptalization / no ligation
- Mutage: Fortification w/ AOP Cognac of 40% ABV
- Elevation:
 - VdL Blanc - may not be released until 4/1, second year after harvest w/ 12 months in oak.
 - VdL Rose - may not be released until next 10/1, w/ 8 months oak.

AGING DESIGNATION:

OLD: 5 YRS IN OAK

V.O.D. / EXTRA OLD: 10 YRS. IN OAK

COGNAC

AN ARGUMENT FOR TERROIR

- all brandies exported to the Cognac App are made from the same grape varieties, harvested in the same way at the same time, fermented, distilled + aged identically.
- Bons Bois + Bois Ordinaire account for < 7% of all grapes grown → more quality minded.
- Petite Champagne is harder, less of the soft chalk of Grande Champagne.
- Bordenes - groies - special clay soils from the jurassic era
- Best sites are s-facing (more sun) and provide drainage
- 2/3 of Bordenes grapes are bought by Martell + Hennessy
- Grapes:
 - Colombard: makes for fat + oily Cognac
 - Folle Blanche: thin + acidic → did not do well on American root-stock after phylloxera
 - Ugni Blanc - the savoir! Aka St. Emilion aka Trebbiano
 - buds late, not susceptible to spring frost
 - neutrality is prized
- vines are pruned less severely to allow for more acidic wines
- when base wine is made, it is very acidic & low in alcohol
 - low ABV base wines mean a higher degree of concentration when distilled to a finite prod.
 - high acid means they keep well & do not suffer from bacterial problems (low pH)
 - NO SO₂!! Becomes disastrous when heated in a still.
 - most undergo malo

DISTILLATION

→ the bigger the still, the more neutral the spirit - contact of alembic!!

- first distillation, larger vessel, produces a half-spirit of 28-32% ABV called the brouillis → takes 8-9 hours
- second distillation, in a smaller vessel, is called the bonne chauffe → takes up to 14 hrs.
- the virtues of copper: malleable, resists corrosion from fire, impervious to acid, and a good conductor of heat! It also fixes fatty acids in wine as well as sulphurous products in the vapors.

COGNAC

BIG FOUR:

1. Hennessy (LVMH)
2. Martell (Pernod Ricard)
3. Rémy Martin (Rémy Cointreau)
4. Courvoisier (Beam Suntory)

DISTILLATION, cont.

- some are distilled w/ hair lees!
 - Rémy separated itself by using lees
 - Courvoisier, sometimes uses lees
 - Hennessy + Martell: no lees
 - most growers in Grande Champagne use lees to some extent.
- the second distillation of up to 25 hl provides only ~ 7 liters of spirit (!)
- bonne chauffe divided into several parts:

- often discarded
- tête (heads)
 - cœur (heart)
 - secondes (second cuts)
 - queue (tail)
- can be mixed w/ base wine (makes for more neutral, full-bodied spirit) or ~~bonne chauffe~~ brouillis for greater depth of aroma.

- the higher the alcohol of the final spirit, the more neutral + rectified it will be. The lower the strength - w/ more secondes allowed - the less neutral, but potentially more flawed/noxious.
 - Armagnac is usually distilled to 52°, Cognac on average 58-60°.

- secondes are allowed to be redistilled w/ base wine or w/ brouillis

AGING

Rémy Martin → can speed aging process.

- Quercus pedunculata (Limousin) + Sessiflora (Trongais)
 - not suitable for cheaper cognacs that spend a ~~year~~ ^{few years} in wood → too tannic.
 - tighter grained - Martell
 - less tannin & more lignin from wood
 - imparts a less woody flavor.
- trees have to be at least 50y.o., staves dried for 3 years. Air-drying puts lignin into vanillin → hugely important.
- legally, barrels can be b/t 270-450 liters in size. 350 is the most common.
- today, only Martell owns its own cooperage.
- humidity in the chai means more evaporation & progressed aging.
- transfer to bonbonnes or demijohnes - 25 liter glass jars - to halt the aging process.

COGNAC

"THE PERSONALITY OF COGNAC"

- The blender - the major Cognac merchants have to rely on growers & distillers for the bulk of their raw materials.
- Martell, Hennessy & Rémy Martin have vineyards of their own, but these account for a very small % of their requirements.
 - NONE buy grapes → all buy wine, new spirit, or aged spirit.
 - Hine, Courvoisier & Delamain do not distill at all.usually purchases come in all three forms from thousands of growers.
- "Big Four" → Martell, Hennessy, Rémy Martin & Courvoisier → over 80% of Cognac sales.
- many estates used to sell to the big guys, then went out on their own → Frapin.
- Rémy Martin, Hine & Delamain only sell brandies from the Champsagnes. Very little notable brandy is made from the Bois Bois. Some producers are championing corners of the Bois Bois.
- Borderies prized for its nuttiness → a major portion of Martell's Cordon Bleu.

BOISÉ

= made by boiling chips of oak for as long & as often as is required to make a thick, brown liquid, which can add woodiness to brandies & increase its apparent age. Employed by many producers.

MAIN FACTORS IN HOUSE STYLE:

- source of fruit
- type of oak employed
- age of casks → many producers put brandy in new wood first, then move to old cask.
- Chais → originally by the river for trade, but this location ended up providing good humidity for aging → lower proof & more aromatics.
 - forta compliacensis richon: black fungus omnipresent in chais.
 - fire & flood are hazards
- use of sugar, boisé & caramel coloring.

- dilution

COGNAC

HISTORY

→ "brandwijn" = Dutch "burnt wine"

- 16th century Dutch settlers came to Cognac to purchase salt, wood + wine. The journey back made preserving wine difficult + preserving it came about through distillation.
- ↳ Brandy was being distilled in Armagnac in the 15th century.
- ↳ the Dutch would add water back in to drink it as "wine".
- double distillation came about b/c it reduced quantity of volume → less transportation cost.
- 17th century - transported in barrels; the taste was appreciated.
- 1715 - Jean Martell founds Martell Cognac (from New Jersey!)
- 1724 - Rémy Martin founded
- 1762 - Delamain founded
- 1765 - Hennessy founded.
- 1800s - bottling begins of Cognac
- 1817 - VOP (very old pale) + VSOP (v. Superior Old pale) are used first.
- 1833 - Faveau des Charentes is developed.
- 1835 - Courvoisier founded
- 1854 - subzones of Cognac are delimited.
- 1858 - A.E. DOR is founded.
- 1872 - phylloxera 280,000 ha → 40,000 hectares
- 1909 - area first defined by law + protected.
- 1936 - new rules for Cognac production

COGNAC

⇒ MOST EXPENSIVE COGNACS ⇐

- 1) L'Art de Martell - launched in 1997 to commemorate the reversion of Hong Kong to China.
(\$5000)
- 2) Delamin de voyage
(\$5000)
- 3) Hardy Le printemps - a blend of Grande Champagne Cognac back to the 1920s.
(\$8000)
- 4) Hine 250 - 1953 single barrel of Grande Champagne.
(\$9000)
- 5) Hennessy Ellipse - an updated version of Hennessy "timeless"
(\$9000)
- 6) Rémy Martin Louis XIII Grande Champagne Très Vieille Age
Inconnu -
Rémy Martin Black Pearl Louis XIII - 40-100 year old brandies from Grande Champagne
(\$100,000)
Rémy Martin Louis XIII - composed of 100% eau-de-vie, 100% from Grande Champagne.
(\$3500)
 - produced since the 1800s.
 - Louis XIII encouraged the sale of brandy under his reign.
- 7) Henri IV Dudoignon Heritage Cognac Grande Champagne
(\$2 million!)

→ Smaller producers: Frapin, Maison Surenne, A.E. DOR

ARMAGNAC

Armagnac AOP

→ Bas Blanc = Puro 22A. Folle Blanche x Noah (cross of *Vitis labrusca* + *Vitis riparia*). Bred for disease & phylloxera resistance.

- subzones: Haut Armagnac, Bas Armagnac, Armagnac-Ténarèze
- encépagement: Bas Blanc, Blanc Dame, Colombard, folle → 57.
Blanche, Grasse, Jurançon Blanc, Mauzac, Mauzac rose, meslier Saint-François, [Ugni Blanc] → 557.

- min. alcohol - 40%
- base wine requirements:
 - must contain 7.5-12% alcohol
 - may not be chaptalized
 - the use of sulphur dioxide is prohibited during fermentation.
- distillation procedures:

• distillation may occur in either a continuous still (Atambic "armagnacais") or the base wine may be double-distilled in a copper pot still. → only 3 producers use pot stills

- continuous
- continuous stills may include 2 or 3 boilers, but may not exceed 40 hl capacity.
 - spirit produced in a continuous still may not exceed 1.5 times the size of the boilers.
 - at the conclusion of the distillation, spirit must be b/w 65-72% ABV.

- pot still
- the still used for the first distillation may not exceed a capacity of 140 ~~HL~~ HL, w/ a volume not exceeding 120 ~~HL~~ HL
 - the still used for the second distillation may not exceed a capacity of 30 HL, w/ the volume not exceeding 25 HL
 - at the conclusion of the second distillation, spirit must be between 65-72% ABV.

- distillation must be completed by March 31 of the year after harvest. → can't be more than 4°

- authorized additives: → measured through the "observation rate" - the difference b/w the theoretical + actual alcohol.
 - sugar, caramel + oak chips for final adjustment + coloring
 - distilled & demineralized water to reduce alcohol prior to bottling.

ARMAGNAC

Armagnac AOP

- Aging reqs: Prior to release, Armagnac must be aged in oak casks of 400-420 liters for a min. of 1 year (from April 1 of the year following harvest).
- Age indications (refer to the youngest Armagnac in the blend):
 - VS / *** : 1-3 years old
 - VSOP / Napoléon : 4-9 years old
 - XO / Hors d'Age : min. 10 years old
 - XO Premium : min. 20 years old
 - if Armagnac carries a vintage date, the vintage indicates the year of harvest.

Armagnac - Ténéré AOP

- same AOP requirements as Armagnac
- clay-limestone - boulbènes

Bas Armagnac AOP

- same AOP requirements as Armagnac
- silicious-clay soils, sand + boulbènes

Haut Armagnac AOP

- same AOP requirements as Armagnac
- chalk, clay + limestone.

Blanche Armagnac

- same reqs as Armagnac AOP, except it must be aged in inert containers for a min. of 3 months
- the final spirit must be colorless → no color additives may be used.

ARMAGNAC = brandy produced in the Armagnac region of Gascony in France.

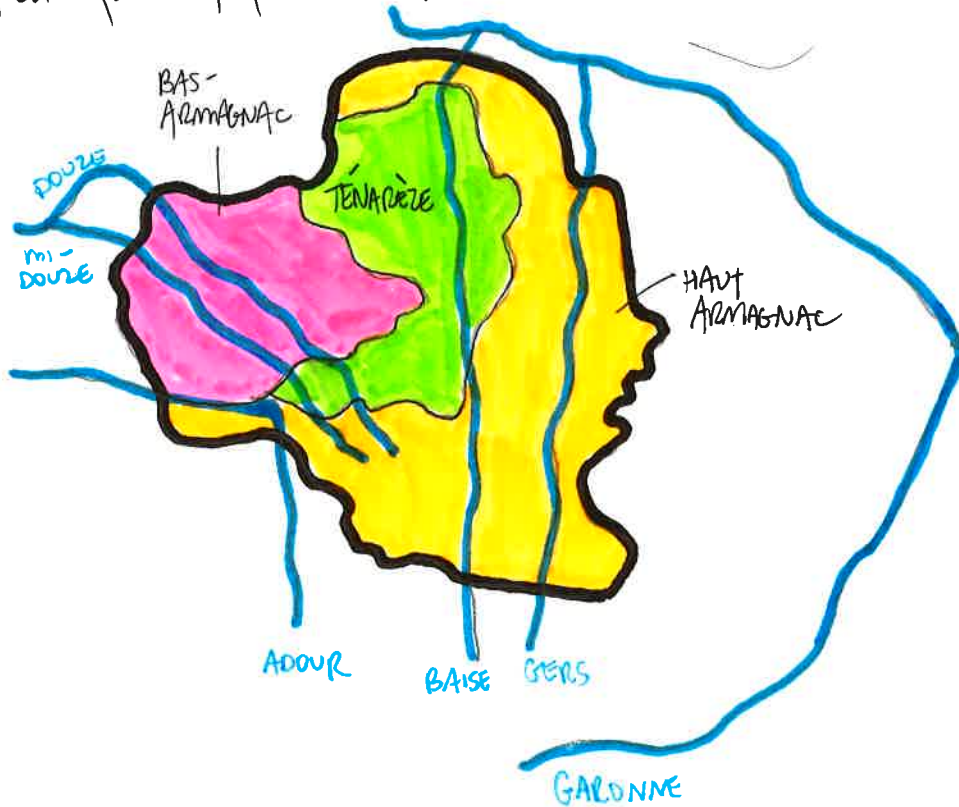
= traditionally, column stills are used rather than pot stills.

= production is overseen by the INAO + the BNIA (Bureau National Interprofessionnel de l'Armagnac).

= smaller producers, vs. bigger names in Cognac.

ARMAGNAC

- The oldest brandy distilled in France. In the past (14th century) it was consumed for therapeutic benefits.
- Octolain → drowned in Armagnac
- Lies b/t the Adour + Garonne rivers in the foothills of the Pyrenees.
- Granted AOC status in 1936



- Armagnac is traditionally distilled once, resulting in 52% alcohol. Results in a more fragrant & flavorful spirit than Cognac, though less polished.
- When Armagnac has finished maturing - typically in 400 liter French oak barrels, either local Gascon oak (called Black Oak) that is wide-grained w/ medium heavy toast or is more narrow-grained Limousin - it is transferred to glass demijohns ("Dame Jeanne") for storage.

BEST PRODUCERS: Taniquet, Delord, Castavède, Pellenant, Leubade, Deffau

CALVADOS

Calvados App

Encépagement:

- may be produced from apple (cidre) or pear (poire)
- orchards must contain a min. 70% bitter (phenolic) varieties and a max. 15% acidic varieties
- at least 20% of the orchard must contain local varieties

min ABV: 40%

Base cidre/poire requirements:

- fruit is washed & juice is pressed after a short period of skin contact.
- water may be added to the marc for additional extraction (a second maceration w/ water is called rémoirage)
- max. yield of must from a ton of fruit is 950 liters
- fermented cidre or poire must have a min. 4.5% ABV
- pasteurization, acidification, chaptalization & carbonation are illegal.

Distillation procedures:

- may not begin until 28 days after the extraction of the must
- distillation may occur in a copper continuous still or may be double distilled in a copper pot still.

- still must not exceed 30 hl capacity (volume of 25 hl.)
- at the conclusion of the second distillation, spirit must not exceed 72% ABV

- stripping instead of rectifying
- max. 250 hl. of spirit per 24 hour distillation
- spirit must be no more than 72% ABV

Authorized additives:

- sugar, caramel, oak chips + water

Aging: prior to release, Calvados must be aged in oak casks (max. 20% for a min. of 2 years (from 7/1 following distillation)

Age Indications: refer to youngest Calvados in the blend

- Fine / Trois Étoiles / Trois Femmes / VS: min. 2 years old
- Vieux / Réserve: min. 3 years old
- VO / VSOP / Vieille Réserve: min. 4 years old
- Hors d'Age / XO / Très Vieille Réserve / Très Vieux / Extra / Napoléon: min. 6 years old

CALVADOS

Calvados Aop, cont.



Max planting density:

- "Haute Tige" Apple trees: 250 trees/hectare
[high stem] - branches are @ least 1.6 (apple) or 1.8 m (pear) off ground
 - "Haute Tige" Pear trees: 150 trees/hectare
 - "En Basse Tige" Apple + pear trees: 1000 trees/hectare
[low stem] - branches begin lower than 1.6/1.8 m. off ground
→ higher max. yield
 - Irrigation is prohibited
- (min. 10% of estate / 50 tree must be planted like this) → lower max. yield

Calvados Domfrontais Aop.

Engagement:

- at least 30% Poire
- orchards used for Domfrontais must contain at least 15% pear trees (25% from 2016 on) → min. 80% of estate must be trained ^{Haute Tige} pear trees
- same reqs for local + bitter apples as w/ Calvados Aop

• min. ABV: 40%

Base Cidre / Poire requirements:

- Fruit must be obtained from at least 50% "Haute Tige" trained trees
- all other reqs of Calvados Aop apply; in addition, addition of yeasts & nutrients is illegal

Distillation procedures:

- distillation may not begin until at least 42 days after extraction of the must.

- distillation must occur in a continuous reflux column still

↳ preferred to capture the freshness of pears that define the style.

↳ follows same reqs as Calvados Aop

• Zero authorized additives as Calvados Aop.

• Aging: Prior to release, must be aged for min. 3 years (max. 20 hl) from date of distillation

• Same age indications as Calvados Aop, except must be @ least 3 years old (no category for 2 years).

• min. age of orchard trees: "Haute Tige" - 7 years "En Basse Tige" - 3 years

"PRODUCTION FERMIÈRE": label indication that Calvados was produced on the same estate where the fruit was harvested + fermented

CALVADOS

Calvados Pays d'Age AOP

- Encépagement:
 - no more than 30% poiré
 - same regs for local + bitter varieties
- Min. ABV: 40%
- Base Cidre ~~Pis~~ Requirements:
 - min. 50% Haute Tige trained trees
 - same regs as Calvados AOP, plus no use of yeasts or nutrients
- Distillation:
 - may not begin for 42 days after extraction of must
 - double distillation must occur in copper pot still
↳ same regs as Calvados AOP
- Same authorized additives
- Calvados Pays d'Age must age min. 2 years from 7/1 after distillation
- Same aging indications as Calvados AOP
- may use labeling designation Production Fermière
- Same pruning & max. planting density as Calvados AOP

CALVADOS



THE REGION, PEOPLE + SPIRIT

- COWS - milk + meat
- HORSES - racing
- CHEESE

- Camembert: top status - unpasteurized cow's milk w/ 45% milk fat, ripens for at least 21 days
- Livarot: partially skimmed cow's milk - spiky + soft
- Pont l'Evêque: unpasteurized cow's milk
- Neufchâtel: raw cow's milk - traditional ♡ shape

FOOD

- root vegetables
- Butter of Isigny
- pork sausage + blood sausage
- shellfish
- sole
- chicken + duck

Famous Normans:

- Claude Monet (moved from Paris @ 5)
- Marcel Duchamp
- Alexis de Tocqueville
- Gustave Flaubert
- Marcel Proust
- Jean-Paul Sartre
- Christian Dior

Benedictine!

CALVADOS

History

- 6th century AD: apple orchards begin to appear in monasteries all over Europe. Eating + cider production.
- 9th century: Charlemagne gives top priority to the production of cidre et poiré.
- 11th + 12th centuries: new varieties of apples + pears arrive from across the channel after the Norman conquest of England.
- 13th century: cider becomes a drink of the common man, invention of apple press.
↳ hilly, humid terrain good for apples
- 18th century: following the revolution, departments were set up & the name Calvados appears.
 - name of a Spanish boat?
 - "Calva dorsa" Latin for "bald backs" appeared on ancient maritime maps.
- 19th century: 300 different apple varieties in Calvados
 - Oidium, mildew + phylloxera → as wine went down, cider went ↑
 - Distilled cider became regular to finish off meals
- WWI: alcohol was needed as ethanol to make gunpowder, Calvados was the primary choice
 - close to the war front
 - cheaper + easier to produce
 - not regulated by AOC laws like Cognac + Armagnac

→ quantity went up, but quality was down
- WWII: Calvados became a protected ~~AOC~~ ^{appellation} → done to ward off pillage by Germans
 - Quality continued to decline after WWII → focus on rebuilding the region
- 1970s: Industrialization / bigger houses
- 1984: AOC is codified / unified
- 1980s: the Chamber of Agriculture finds replanting of Norman apple trees
 - Dwarf or basse-tige rootstock became common place (can give usable fruit after 4 years, vs. 15-20 on standard rootstock)

CALVADOS

TRADITIONALISTS

vs.

INDUSTRIALISTS

ORCHARD
PLANTING

- 100 trees/hectare
- Nantes - figes
- naturally low-fertilized

- 1000 trees/hectare
- dwarfed / basses-tiges rootstock
(argument is that this produces less flavorful apples. less diversity of varieties, many need to use chemicals b/c of high density, to protect from disease)

APPLE
VARIETIES

- Plant w/ a variety of apples, especially small, late-harvesting ones.

- Plant w/ early-harvesting varieties, generally larger to ward against weather risks later than October.

PURCHASING
FRUIT

- Don't do it!

- Do it, often acquiring particular rotten, lower quality fruit, or table varieties.

SUGAR
LEVELS

- Avoid adjusting must @ all.

- Natural sugar levels of juice can be adjusted w/ local must to heighten alcohol.

SPEED OF
FERMENTATION

- Slow, natural fermentation that last throughout the Spring.

- Large, temp. controlled, stainless steel tanks, shorter fermentations

DISTILLATION

- Manual performance of cuts.

- Computerized cuts.

BARRELS

- Only old oak

- New oak

BLENDING

- No additives

- Addition of oak chips, caramel + sugar.

CALVADOS

Terroir

- Maritime climate, softened by the temperate winds of the English Channel + the gulf stream of the Atlantic ocean.

→ persistent, light rainfall

- Soil variation: sand, silt, loam, clay, sandstone, shale, etc.

Appos

- 300+ different varieties
- most cider/calvados appos are quite small, high in phenolic content, higher proportion of skin/seeds to pulp.
 - ↳ if cider is too sweet, distillate will be alcoholic + aggressive
 - ↳ if cider is too acidic, distillate will be dry + lack flavor
- 4 categories: sweet, bittersweet, bitter + acidic
 - ↳ producers aim to have a mix for the best Calvados
- Appos cannot self-perinate - have to be planted

Pears

- Pears have a more profound root system than apples, capable of searching for nutrients deep in dry soil (like that found in Dordogne)
- Smaller + more rounded than most table varieties of pears.
- Different from apples:
 - ↳ higher sugar content
 - ↳ more acidic
 - ↳ grittier texture
- Generally discussed in terms of early/mid/late ripening and more ~~or less acidic~~ → astringent.
- Pears keep less well on the ground - need to be collected right away.
 - ↳ high sugar content causes skin to crack.
- Pear trees are often 2-3x higher than apple trees. All fruit must fall naturally

- Three principle vineyard antagonists: excessive moisture, mold + bacteria

CALVADOS

Harvesting

- when apples + pears mature, they fall to the ground.
 - Some varieties can stay on the ground for several weeks, others must be picked up within a day or two. Pears need to be collected immediately.
 - traditionally, picked by hand. "Sweepers" now to mechanically collect, but they perhaps pick up too much → need heavy sorting. machines will not damage fruit, though.
 - the ones that haven't fallen off can be knocked to the ground.
- Alternate bearing / biennial bearing: trees produce heavily one year + lighter the next.

Storing

- some producers like to let the fruit sit / dry for several weeks after harvest + before fermentation
 - more developed / savory flavors but less juice

Pressing

- called pilage or brassage
- one can not merely press - pears + apples are too compact & firm
 - crushing & then pressing.
- hydraulic press (a paquet) - most common amongst agricultural producers today.
 - wooden slats separate the layers
- Pneumatic press - more tender - less thorough than hydraulic
- Band press - favored by industrialists

Cidre Breuvé → "bottled"

• Cidre destined to be bottled rather than distilled is left w/ RS that turns into gas in the bottle.

- Doux: 35+ g/L RS

- Demi-Sec: 28-35 g/L RS

- Brut: < 28 g/L RS → must be @ least 5 to ABV

• Farmhouse styles - unfiltered, yeast still present, end up being dryer

• bollet - small ceramic cup ~~often~~ used for cider traditionally

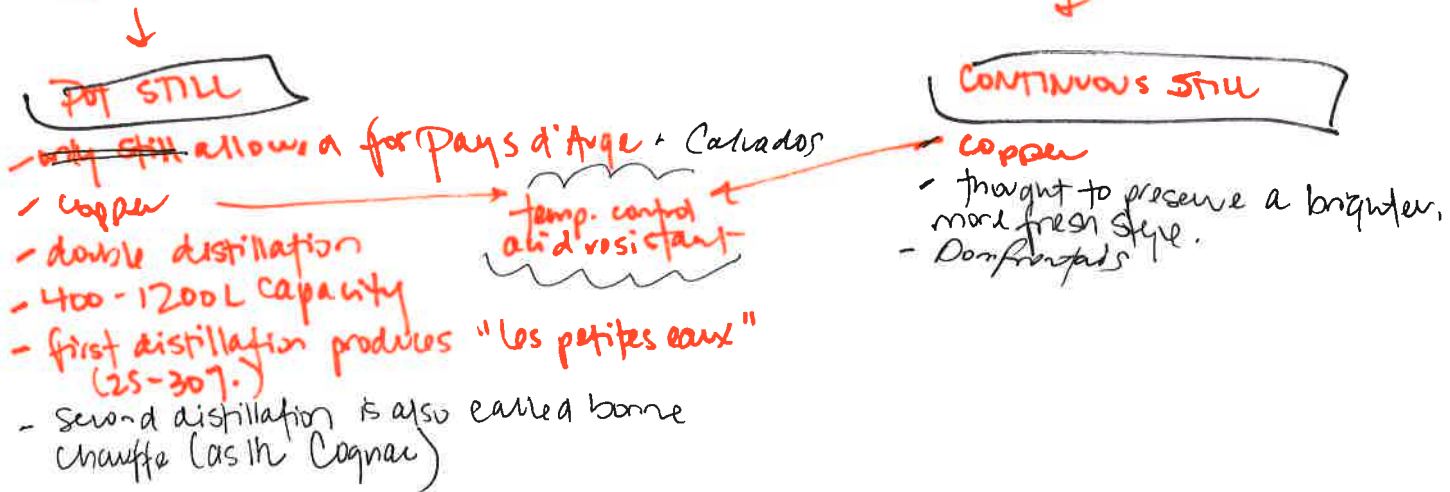
CALVADOS

Cider for distillation

- must be dry & no bubbles
- juices of juice w/ the highest sugar levels will be used for cidre bouché or must for pommeau.
- higher ABV juices used for distilling - 5-6% ABV - for quantity reasons.
- cider for calvados often ferments for up to 9 months!

Distillation

- two types of stills allowed



Aging

- o most producers only allow for a small amount of time (3 months - 1 year) in new oak before transferring to older barrels.
- o oak is used - usually Limousin, but can vary.

PRODUCERS

PAYS D'AUGE

- Christian Drouin
- Bouvard
- Busnel
- Roger Groult
- Adrien Camuf

DOMFRONTAIS

- Lemorton
- Gontier
- Comte Louis de Lamoignon

CALVADOS

- Dupont

Rum

• Name comes from latin word for sugar: saccharum.

↳ OR - shortened version of British words rumbustion / rumbullion (tumult / uproar)

↳ OR - from "roemer", or drinking glass

↳ ron → Spanish speaking nations ~~use~~ use.

↳ rhum → fresh sugar cane juice

Also called
"Kill-Devil"

• First distillation of rum is thought to have taken place on the sugarcane plantations of the Caribbean in the 17th century.

↳ plantation slaves discovered that molasses - a byproduct of the sugar refining process - could be fermented into alcohol.

↳ probably originated in Barbados, but possibly

• After rum's development in the Caribbean, the drink's popularity spread to Colonial North America.

• first rum distillery was set up in 1664 in present-day Staten Island, then Boston 3 years later.

• triangular trade: between Africa (slaves), ~~sugar~~ Caribbean (sugar) and US colonies (rum).
↳ labor source to work on sugar plantations.

• Sugar Act - 1764: imposed + enforced tax on sugar/molasses imports. Shifted US production away from rum + towards whiskey + helped ignite the US revolution.

• Naval rum

• the association of rum w/ the Royal Navy began in 1655, when the British fleet captured the island of Jamaica

↳ daily ration was changed from French Brandy to Jamaican rum.

↳ Navy rum: blended from sites in West Indies, 47.75% - 51% ABV

↳ Grog: effort to minimize drunkenness among sailors - watered down rum w/ lime sometimes.

↳ Ration of daily rum was not abolished until 1970.

Rum

REGIONAL VARIATIONS

- English speaking islands + countries are known for darker rums w/ a fuller taste that retain a greater amount of the underlying molasses character.

→ now produced in Barbados

- Antigua - "
- Trinidad + Tobago - Ten Cane, Angostura
- Grenada - "
- Barbados - Mount Gay, Pusser's
- Saint Lucia - "
- Belize - "
- Bermuda - Gosling's
- Saint Kitts - "
- Guyana - El Dorado
- Jamaica - Wray + Nephew, Blackwell, Appleton, Meyer's
- vs virgin islands - Cruzan (St. Croix)

Demerara Rum -

made on the banks of the Demerara River in Guyana. Historically, slave shaves the same name... sugar is grown there & distilled there. The only wooden casks still left in the world!

- French speaking islands + countries known for rum agricole - produced exclusively from sugar cane juice - retain a greater amount of flavor and are more expensive

in these countries, rumolasses rum is called "rum industriel"

- Haiti - Barbancourt
- Guadeloupe - "
- Martinique - JM, Neisson, Clément, La Favorite
- see App requirements on page 4

- Spanish speaking countries + islands traditionally produce lighter, smoother, rounder, sweeter styles. Can be blanco or añejo. Often referred to as "ron".

- Cuba - Havana Club
- Guatemala - Zacapa, Botran
- Panama - Don Anselmo, Don Pancho
- Dominican Republic - Brugal, Barceló, Atlantico, Matusalem
- Nicaragua - Flor de Caña
- Puerto Rico - Bacardi, Don Q
- Colombia - Dictador
- Venezuela - Ron Santa Teresa, Diplomático, Pampero

- Sailor Jerry + ~~Pirate~~ - blends from all over the Caribbean
- All above are a combination of distillers w/ bottlers/blenders

Rum

ENGLISH rum

- Historically from British Colonies, who would ship back to England for aging + bottling.
- Generally fuller, darker, more aged and w/ greater molasses character.

SPANISH rum

- Spanish-speaking countries + islands generally produce a lighter, rounder, more rectified flavor profile.
- Often referred to as "ron".

FRENCH rum

- Unlike Spanish + English rums (which are made from molasses), french rum is distilled from fresh sugar-cane juice.
- Referred to as "Rhum" or "Rhum agricole"
- Column-distilled
- Dry + vegetal in style.



- 1. LALAPA, RON BOTKAN
- 2. FLOP DE CANA
- 3. RON ABUELO, DON PANCHITO
- 4. DIPLOMATICO, PAMPELO, RON SANTA TERESA
- 5. GOSLING'S

- 6. ANGOSTURA
- 7. EL DORADO
- 8. MOUNT GAY, PUSSEY'S
- 9. 1m, NEISSON, CLEMENT, FAVORITE
- 10. CUMAN

- 11. BACARDI, DON R
- 12. BRUGAL, BARUELO, ATLANTICO, MATUSALEM
- 13. BARBANCOURT
- 14. WRAY + NEPHEW, BLACKWELL, APPLETON, MYERS
- 15. HAVANA CLUB
- 16. DIUTADOR

Others:

BRAZIL - Oponoco, Leblon, Cabana, etc.

FIJI - SOUTH PACIFIC DISTILLERS

USA - ST. GEORGE, ZAFRA, KILOKAI, KAAREN, ROGUE, PRICHARDS

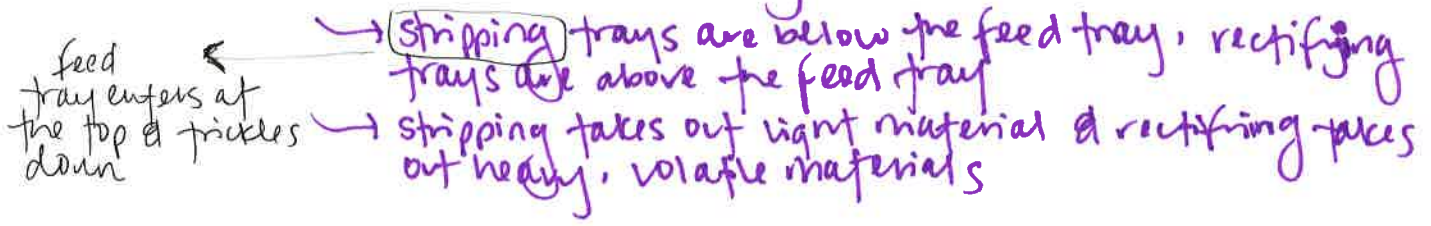
vender/bottlers

CARIBBEAN BLENDS - Sailor Jerry, Pyrat

Rum

MARTINIQUE AOP

- Base material:
 - 2 species of sugarcane allowed
 - harvest occurs b/t Jan. 1 + Aug. 31
 - min. 10 year old sugarcane plants
- min. ABV - 40%
- Fermentation:
 - must occur in open tanks of 500 hl. or less
 - may not have any additives
 - may not last more than 120 hours
 - sugarcane juice has b/t 3.5-7.5% ABV
- Distillation:
 - may occur b/t Jan. 2 + Sept. 5
 - occurs in a continuous reflux column still
 - at the conclusion, spirit must have an alcohol content of 65-75%
 - No rectification → stripping occurs instead

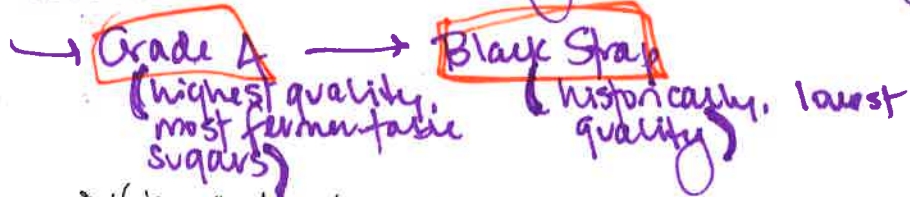


- Authorized additives:
 - Sugar, Caramel, water + oak chips!!
- Aging requirements:
 - Blanc - min. 8 weeks in tank
 - "Elevé Sous Bois": min. 12 ~~weeks~~ months in oak w/ a min. of 250 g/hl in volatile elements other than ethyl + methyl alcohol.
 - Rhum Ambré: 18 mos. in oak barrels. Also called Rhum Paille.
 - Vieux / Hors d'Age: min. 3 yrs. in oak casks of less than 650 liters w/ a minimum of 325 g/hl in volatile elements other than ethyl & methyl alcohol
 - VO : min. 3 years in oak
 - VSOP : min. 4 years in oak
 - XO : min. 6 years in oak

Rum

Production

- Molasses - to extract sugar from the sugarcane juice, plants boil the juice until the crystals start to form, leaving behind a thick juice known as molasses.



→ if imported to the US.

- Labeling - In the USA, the label of a rum must state the youngest rum in the blend. To get around this, bottles state numbers (like a fantasy name) rather than an actual age statement.
- In the EU, the label can state the oldest rum in the blend.

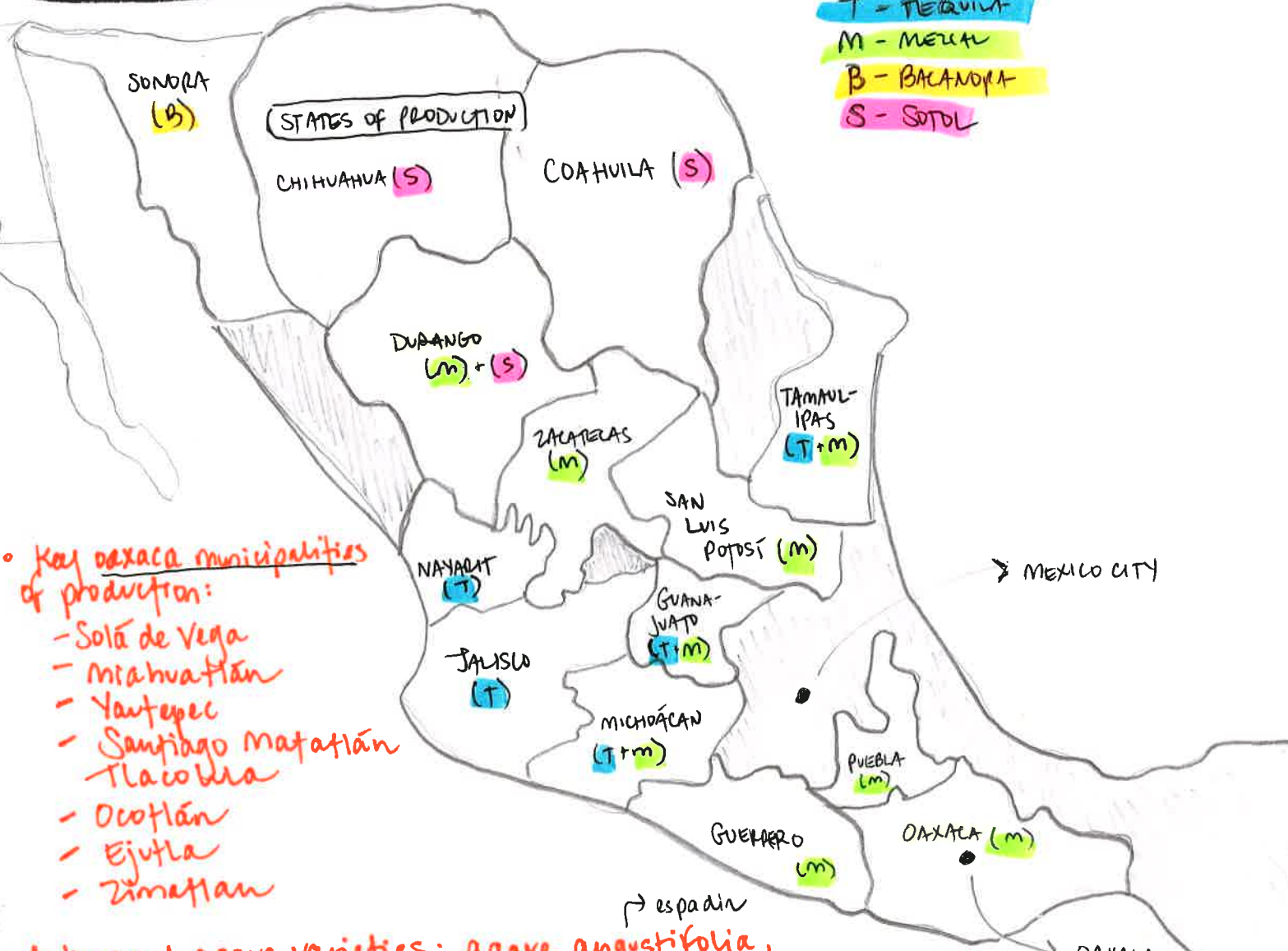
- angel's share - average for rums is 10% / year (vs. scotch - 2%)

INDEPENDENT BOTTLEPS

- Blackadder - based in Scotland - Scotch + rum
- Samanli - re-woods rum from the Caribbean + Fiji
- often single vintage, single country

TEQUILA - FRIENDS

- T - TEQUILA
- M - MEXAL
- B - BACANORA
- S - SOTOL



- Key Oaxaca municipalities of production:
 - Solá de Vega
 - Miahuatlán
 - Yantepec
 - Santiago Matatlán
 - Tlacolula
 - Ocotlán
 - Ejutla
 - Zimatlan

- Authorized agave varieties: agave angustifolia, agave esperma, agave weberi, agave patatorum, agave salmiano, additional varieties that are not the primary raw product for other DO spirits made in the same state of origin.
- Alcohol content: 36-55%
- Label designations:
 - Añejo: Mexcal aged in oak barrel for at least 1yr. (max. 200L capacity)
 - Reposado: Aged at least 2 mos. in oak barrels
 - Joven: young mexcal
 - 100% agave: mexcal produced from only agave (basic mexcal can contain up to 20% other carbohydrate material)

↳ notably: not blue agave

• Category designations:

MEXCAL

- cooking: pit ovens or cement or stainless steel tanks
- milling: wooden bats, stone wheel, or mechanical shredder or mill
- fermentation: stone vessel, cement, wood, clay, earthenware or animal skins or stainless steel
- distillation: alambic still, continuous still, copper still, or stainless steel tank

TEQUILA & FRIENDS

governed by NOM - Norma Oficial Mexicana (document regulated by CFE)

TEQUILA DO

- Original states of production: Jalisco, Nayarit, Guanajuato, Michoacan, Tamaulipas.
- Authorized agave varieties:
 - Agave tequilana (blue agave) → also referred to as "the century plant"
 - tequila may contain up to 49% sugars from sources other than agave
- Alcohol content: 35-55%
- Permitted additives: Caramel coloring, natural oak or **encino oak** extract, sugar-based syrup, glycerin
 - ↓ Native to Mexico & West Coast. "Live oak" - Quercus agrifolia - much denser, less porous, do not split as easily
- Aging must be carried out w/in DO boundaries
- Label designations:
 - Blanco / Silver - < 2 months (no legal requirements)
 - Oro / Gold - Spirit enhanced by "mellowing" w/ caramel color & oak extracts.
 - Reposado - Min. 2 months in oak or encino oak containers
 - Añejo - Min. 1 year in oak or encino oak containers. Max barrel size is 1000 L.
 - Extra Añejo - Aged min. 3 years in oak or encino oak barrels. Max. barrel size is 1000 L.
- 100% Agave - no other sugars
- Tequila is traditionally made by ^{pressure cooking} ~~boiling~~ the hearts of the agave in large industrial ovens, known as autoclaves, which does not impart any special flavor or characteristics to the resulting tequila.

MEXICAL DO

Highlands vs. Lowlands Tequila → earthier, vegetal, more wood, fruitier tequila

→ agave grows larger & is harvested later

- Original states of production: Oaxaca, Guerrero, Durango, San Luis Potosi, Zacatecas
 - added in 2003: 7 towns in Tamaulipas state
 - added in 2012: multiple towns in Michoacan state
 - added in 2015: San Luis de Paz in Guanajuato state
 - pending: multiple towns in Puebla state

TEQUILA FRIENDS

MERCAL ARTESANAL

- Cooking: pit ovens or cement
- mill: wooden bats, stone wheel, or mechanical shredder
- fermentation: stone vessel, cement, wood, clay, earthenware, or animal skins; can include maguey fiber (bagazo)
- distillation: direct fire or alembic, copper small, or large clay vessel; wood; copper or stainless tank, can include maguey fiber (bagazo)

MERCAL ANCESTRAL

- Cooking: pit ovens
- mill: wooden bats or stone wheel
- fermentation: stone vessel, cement, wood, clay, earthenware, or animal skins; must include maguey fiber (bagazo)
- distillation: direct fire on small or large clay vessel; wood; must include maguey fiber (bagazo)

After agave plants are harvested, the remains (~~leaves~~) are ground into a fibrous pulped bagazo, which is heated, then used to protect piñas from heat source/burning, used to seal/insulate the still, abertiletes, etc.

SOTOL DO

- States of production: Chihuahua, Coahuila, Durango
- Plant species: Dasylirion wheeleri (a succulent, rather than an agave plant). Sotol may contain up to 49% of sugars from other sources.
 - known as "desert spoon," wild sotol plants take 15 years to mature. Typically 1 plant = 1 bottle of sotol (tequila + mercal, 1 plant = 5-10 bottles)
- Alcohol content: 35-55%
- Label designations:
 - Blanco
 - Joven/Oro: the result of either Sotol Blanco blended w/ Sotol Reposado or a Sotol aged in wood for 1-2 months
 - Reposado: Aged for a min. 2 mos. in oak, chestnut, acacia, beech, or ashwood w/ a max. 200 L capacity
 - Añejo: Aged min. 1yr. in max. 210 L wood casks
- DO established: 2004
- Piñas are typically cooked in above-ground ovens and distilled in column stills - lacks the smokiness of mercals.
- most notable brand: Hacienda de Chihuahua

PULQUE - Fermented agave, yet to be distilled

Unlike agave, which only flowers once in a lifetime, Sotol produces a flower stalk every few years.

TEQUILA • FRIENDS

BACANORA DO

- State of production: Sonora
- Authorized agave varieties: Agave angustifolia (also known as Yaquina)
- Alcohol content: 38-55%
- Label designations:
 - Blanco
 - Joven / Oro: A blend of Bacanora Blanco w/ Reposado or Añejo
 - Reposado: At least 2 months aging in oak or encino wood
 - Añejo: At least 1 yr. aging in oak w/ max. Capacity 200L
 - 100% agave: Bacanora produced solely from the distillation of A. angustifolia.
- DO Established: 2000 (Unlike tequila + mezcal, DO is not recognized internationally)
 - ↳ would fall under the mezcal DO internationally
 - ↳ Bacanora production was illegal until 1992
- Like mezcal, agave hearts are roasted in earthen pits, imparting a smoky flavor to final product.
- most notable brand: Cielo Rojo Bacanora

MEZCAL PRODUCTION

- Traditional production houses - called fábricas or palenques
- HARVEST: extraction of piña (heart)
- COOKING: cooked for about three days. Pit ovens are most traditional, which are earthen mounds over pits of hot rocks.
- MILLING: crushed + mashed, traditionally by a stone wheel turned by a horse.
- FERMENTATION:
- DISTILLATION: Two distillations, the first - known as the purta, comes out around 31.5% ABV.

MYTH OF THE "worm": Why?
 (Actually the larva of a moth that can infest agave plants)

1. marketing ploy
2. prove it's fit to drink (high ABV)
3. imparts flavor

special types of mezcal:

- tobalá - type of maguey, harvested wild @ high altitude
- de gusano - distilled w/ ^{Cedron} lemon verbena
- pechuga - third distillation of mineiro, over fruit + chicken
- mineiro - espadin mezcal from Santa Cecilia Minas
- Cedron - de gusano - w/ worm
- de alacran - scorpion
- creme de café

TEQUILA • FRIENDS

OTHERS:

PAICILLA

- produced in 7 towns of Jalisco, often associated w/ Puerto Vallarta
- made from agave lechuguilla + agave pata de mula
- is mezcal, technically
- pitas cooked in above-ground ovens - not as smoky.

SIKVA

- produced in Michoacán - mezcal made in this state (before it was included in the DO)

CHAVANDA

- Mexican NOM

AGAVE DISTILLATE

- In 2006, an "agave distillate" NOM was passed to govern all mezcal making regions not covered by a DO.

WHISKEY

- The word "whiskey" comes from the Celtic term for "water of life" — *uisce beatha*.
- DEFINITION: a spirit produced from cereal grains distilled in such a way as to retain the character of the grains.
 - almost always uses a proportion of malted barley
 - almost always develops character from maturation in oak.

BLENDING

in whiskey

- almost all whiskey is a blend, either of grains, of barrels, or both.
- Scottish & Canadian tradition is to blend finished whiskeys when blending grains.
- Irish & American whiskeys are traditionally blended as grains rather than as finished spirits.

VERY BROADLY...

Scotch

- single malt = 100% malted barley from a single distillery
 - ↳ pot still
- wheat, corn, or unmalted barley are column distilled to make grain whiskey for blended Scotch whiskey.

Irish whiskey

- most distinctive style is "pure pot still" or "single pot still"
 - ↳ refers to whiskey made at a single distillery, in a pot still, from a mixed mash of malted + unmalted barley

SCOTCH

- 1 Talisker, Isle of Skye (Diageo)
- 2 Tobermory, Isle of Mull (Distell)
- 3 Isle of Jura, Isle of Jura (Allian)
- 4 Bunnahabhain, Islay (Distell)
- 5 Caol Ila, Islay (Diageo)
- 6 Ardbeg, Islay (LVMH)
- 7 Lagavulin, Islay (Diageo)
- 8 Laphroaig, Islay (Beam/Sunfong)
- 9 Bowmore, Islay (Beam/Sunfong)
- 10 Kilchoman, Islay (Independent)
- 11 Brichtaddich, Islay (Rémy Cointreau)
- 12 Glen Scotia, Campbeltown (Loch Lomond Group)
- 13 Glenyle, Campbeltown (Mitchell's)
- 14 Springbank, Campbeltown (Independent)
- 15 Highland Park, Orkney (Edington)
- 16 Scapa, Orkney (Pernod Ricard)
- 17 Arran, Isle of Arran (Isle of Arran Distillers)
- 18 Abhainn Dearg, Isle of Lewis (Independent)
A first production in 2008

Islands, Islay + Campbeltown



→ Glenbrack: yet to be opened. Soon to be Islay's 9th distillery.

→ Port Charlotte: site of a former distillery where Brichtaddich now ages whisky and matures under the name.

→ Port Ellen: closed in 1983.

SCOTCH

Speyside

- 26 Speyside, Speyside (Speyside Distilling Co.)
 - 27 Benromach, Speyside (Gordon & MacPhail)
 - 28 Linkwood Speyside (Diageo)
 - 29 Benriach, Speyside (Brown-Forman)
 - 30 Glenrothes, Speyside (Berry Bros. & Rudd) → the Potres Cluster
 - 31 The Macallan, Speyside (Edinburgh)
 - 32 Cragganmore, Speyside (Diageo)
 - 33 The Glenlivet, Speyside (Pernod Ricard) → Southern Speyside (w/ Speyside Distillery)
 - 34 Mortlach, Speyside (Diageo)
 - 35 Glenfiddich, Speyside (William Grant & Sons)
 - 36 The Balvenie, Speyside (William Grant & Sons)
- Elgin to the western Edge
- The Ben Rinnies Cluster
- Dufftown Cluster

Highlands

- 37 Glenmorangie, Highlands (LVMH)
 - 38 Dalmore Highlands (Alliance Global Group)
 - 39 Royal Brackla, Highlands (Bacardi)
 - 40 Old Pulteney, Highlands (ThaiBev)
 - 41 Cynelish, Highlands (Diageo)
 - 42 Royal Lochnagar, Highlands (Diageo)
 - 43 Edradour, Highlands (Signatory)
 - 44 Aberfeldy, Highlands (Bacardi)
 - 45 Deansford, Highlands (Distell)
 - 46 Loch Lomond, Highlands (Loch Lomond Distilling Co.)
 - 47 Oban, Highlands (Diageo)
 - 48 Ben Nevis, Highlands (Nikka)
 - 49 Dalwhinnie, Highlands (Diageo) - Central Highlands
- Northern Highlands
- Central Highlands
- Southern Highlands
- Western Highlands

Scotch

SCOTCH REGULATIONS

- Geographic Indications: Highland (includes the islands of Mull, Jura, Skye + Orkney)
Lowland
Speyside
Islay
Campbeltown
- Minimum ABV: 40%
- Distillation procedures:
 - must be produced from a mixture of water, malted barley and other whole cereal grains
 - distillation produces a spirit of no more than 94.87% ABV
 - Fermentation & Distillation must occur in the same location in Scotland
- Authorized additives: water + caramel coloring
- Aging: min. 3 years in oak casks w/ a maximum capacity of 700 L.
- Maturation & Export:
 - may only be matured in a permitted excise warehouse in Scotland.
 - may not be exported in oak or wooden vessels (inoxidative containers are legally allowed)
 - Single malt must also be bottled in Scotland, starting in 2022.
- Age statement: year of distillation may not be included unless the year of bottling, period of aging, or age is included.

INDEPENDENT BOTTLERS

- Duacan Taylor, Master of Malt, Gordon & MacPhail, Cadenhead's, The Scotch Malt Whisky Society, Murray McDavid, Bemy Bros & Pudd, Douglas Laing, Samaroli
- often labelled w/ the distiller's name, but not w/ any branding.

SCOTCH

CATEGORIES OF SCOTCH WHISKY: Mutually Exclusive!!

- ① **Single Malt** - single distillery
 - pot still
 - 100% malted barley
- ② **Single Grain** - single distillery
 - mixture of grains ("single" refers to distillery, not to grains)
 - basically, any Scotch made @ a single distillery that does not qualify as single malt or Blended.

- rarely bottled → used in blending for Blended styles.
- ③ **Blended Malt** - blend of two or more single malts from different distilleries
 - "pure malt" and "vatted malt" are former synonyms, no longer legally approved.
 - age statement = youngest in blend.

Examples:
- Johnnie Walker Green
- Monkey Shoulder
- Compass Box
- ④ **Blended Grain** - blend of two or more single grain Scotch whiskies that have been produced at more than one distillery
 - no single malts included
- ⑤ **Blended** - blend of one or more single malt whiskies w/ one or more single grain whiskies.
 - 90% of Scotch's production.
 - Dewar's, Johnnie Walker, Litty Saut, JWB, Ballantine's, Famous Grouse, Chivas, etc.

JOHNNIE WALKER! - owned by Diageo

- **RED LABEL**: 80 proof, blended, intended for making mixed drinks
- **BLACK LABEL**: 80 proof, blended, all whiskies in blend @ least 12 yrs. old.
Caol Ila @ Talisker are dominating single malts in blend.
- **GREEN LABEL**: 80 proof, blended malt, predominately Talisker, Linkwood, Cragganmore + Caol Ila - "four corners". Aged min. 15 yrs.
- **GOLD LABEL**: "The Centenary Blend", blended malt, particularly Clynelish. 15-18 yrs. old.
- **BLUE LABEL**: 80-80 proof, no age statement. Aka "Max Walker". Blended to recreate early blends of the 19th c. - grain + malt

History of Scotch

→ in this period, Lowlands overproduced and diminished in quality, sending demand to illicit highlands distilleries.

• made since the 15th century

→ Late 18th century / early 19th century attempts to bring whisky under fiscal / governmental control sent it underground.

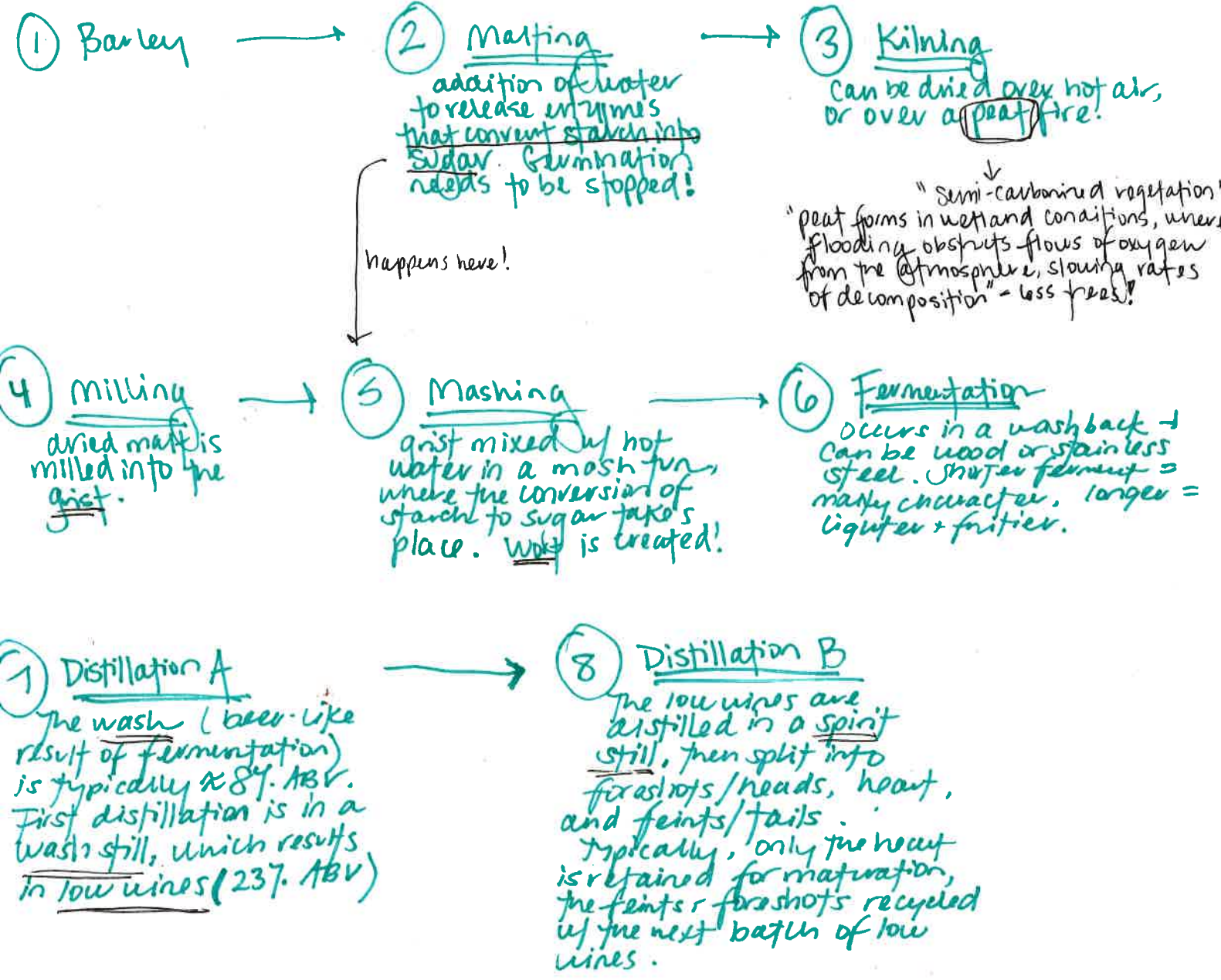
• 1823 Excise Act - eased restrictions on licensed distilleries
- ushered in the modern era of Scotch production

• 1831 - column still → create cheaper blended whisky, became a global spirit.

• 1880s - phylloxera destroys wine + cognac production → Scotch's popularity increases.

→ 1780s: Ban on home distilling, ban on exporting below / above the highland line, restriction on number (and size) of stills

MALT PRODUCTION



happens here!

↓
"Semi-carbonized vegetation"
"peat forms in wetland conditions, where flooding obstructs flows of oxygen from the atmosphere, slowing rates of decomposition" - less fresh!

Determining Factors:

- yeast: not much of a variable in Scotland
- copper: "long ~~conversation~~ conversation" vs. "short conversation"
→ tall stills, where spirit is in contact w/ copper for longer, tend to produce lighter spirits.
- condensing: shell & tube vs. worm tubes
→ shell & tube offers more exposure to copper → lightens
worm tubes create a heavier spirit
- cut points: lighter, delicate aromas up front; heavier, smokier oilier on the back.

SPEYSIDE

• From 1823 onward (year of the Excise Act), you can see Speyside being pulled in 2 directions: old ways vs. new (old = small stills, heavy matts, new = large stills, lighter matts)

SOUTHERN SPEYSIDE

- ① The Speyside
 - Speyside's newest distillery
- ② Balmenach
- ③ Tamnavulin
- ④ Tormore
- ⑤ Tomintoul
- ⑥ Braeval
- ⑦ The Glenlivet
 - Embraced the new style - larger stills, lighter spirit, technology.
 - 12 yr, 15 yr, 18 yr, 21 yr.

THE BEN RINNES CLUSTER

- "Scotland's Unisky Mountain"

- ① Cragganmore
 - Lightly peated w/ a lot of copper exposure
- ② Ballindalloch
- ③ Knockando
- ④ Tamdhu
- ⑤ Cardhu
- ⑥ Glenfada's - "heavily sweet + brooding"
- ⑦ Dailuaine
- ⑧ Imperial
- ⑨ Beninnes
- ⑩ Allt-a-Bhainne
- ⑪ Aberlour
- ⑫ Glenallachie
- ⑬ The Macallan
 - labels "Highland Single malt"
 - no reflux - heavy spirit
 - American + European oak → all from Jerez originally

⑬ ~~Craigellachie~~

→ European oak.
 • Sherry oak range: 12, 18, 25, 30, 40
 • Double Cask 12 yr old: American + European oak (both "sherry seasoned")
 • Fine Oak range: not cherry seasoned
 • 1824 Series: Gold, Amber, Silver + pink (naturally colored whiskies selected by the flavor - all sherry cask)
 Rare Cask, Rare Cask Black, No. 6, Reflexion (M)

the most expensive whisky ever sold?

SPEYSIDE

THE DUFFTOWN CWSTEP

- self-proclaimed whisky capital of Speyside

① Glenfiddich

- world's best selling single malt!
- all bottled on site
- 12 yr, 15 yr, 18 yr, 21 yr, 30 yr, 40 yr
- Fragrant + floral → Rich + Round

② Mortlach

- oldest distillery in Speyside
- perhaps the nearest single malt!
- "distilled 2.7 times"
- worn tubs

③ Glendullan

> Singleton brands

④ Dufftown

⑤ Balvenie

- small amount of peat
- Short-necked, fat stills → create a nutty + malty style
- the first "finished" whisky
- Double wood - 12 yrs - Neutral + first fill Oloroso
- Caribbean Cask - 14 yrs
- peated Cask
- Single Barrel - 12 yrs - first fill Bourbon
- 30, 40, 50, as well as single barrels

⑥ Kininvie

- In 1990, w/ demand for Glenfiddich growing, William Grant built Kininvie to provide for their blends.
- First official bottling under its name was released in 2013 - 23 year old.

KEITH TO THE EASTERN BOUNDARY

- blenders! Dewar's, Chivas, + J&B all source heavily from here.
- Strathisla, Strathmill, Glen Keith, Aultmore, Glenfaucon, Auchroisk, Inchgrove

SPEYSIDE

THE POTHEES CREST

- ① Glen Grant
 - light, fragrant + floral style
 - bought by Campari in 2006
 - 10 yr. Major's Reserve + V (5 decades)
- ② The Glenrothes
 - 10 stills: 5 wash, 5 spirit
 - used to be just used in blends, now owned by Berry Bros - Rudd - marketing vintage
 - Select Reserve, Elder's Reserve, 1969
 - fruity + spicy style
- ③ Speyburn
- ④ Glen Spey
- ~~⑤~~

ELGIN TO THE WESTERN EDGE

- ① Glen Elgin
- ② Longmorn
- ③ The BenRiach
 - make a few peated styles, but fruity + spicy otherwise
- ④ Roseisle
- ⑤ Glenlossie
- ⑥ Marnochmore
- ⑦ Linkwood
- ⑧ Glen Moray
- ⑨ Milforduff
- ⑩ Benromach
- ⑪ Glenburgie

HIGHLANDS

- Legally, everything north of the Highland Line that isn't Islay or Speyside

SOUTHERN HIGHLANDS

- close to the north, suburbs of Glasgow
- Glengoyne
- Loch Lomond
- Deansfoot
 - opened 1964
 - known for its "waxiness"
 - fruity + spicy in style.
- Tulibardine

CENTRAL HIGHLANDS

- centered around Perthshire - once a center of distilling activity, only a few have survived.
- Glentworth + Strathearn
- Aberfeldy → smallest distillery!
- Edradour + Blair Athol
- Royal Lochnagar
- Dalwhinnie
 - constructed in 1897 next to the railway
 - desolate, cold + high in elevation
 - rich, honeyed, beeswax character. Fruity + spicy in style.
 - known for using worm tubs to condense, which provide more richness than the "shell of tube" condensers introduced in the 20th C.

EASTERN HIGHLANDS

- sparsely populated w/ distilleries - fertile
- Glenadam
- Fettercairn
- Glen Garioch
- Ardmore - peated
- GlenDronach
- an Cnoc + Glenglassaugh
- MacDuff

HIGHLANDS

NORTHERN HIGHLANDS

- Tomatin
- Royal Brackla

WHISKY ~

ISLANDS

Technically part of the Highlands! From north to south...

Orkney Islands:

① Highland Park

- partially **peat**-dried on site
- only ex-sherry casks (and no caramel coloring) - 12yr, 18, 25 + 40

different on Orkney - "Orkadian Peat" - high winds, high salt spray, no trees... only the heather + peat bogs.

② Scapa

- unpeated, fruity, polished style
- 16 year

"machair"

: beach grass + a factor in island malts - can be compressed into peat, along w/ heather, moss, etc.

Isle of Lewis (Outer Hebrides):

① Abhainn Dearg

- Hebrides did not produce a commercial spirit until 1840 + 2008!
- fruity + spicy style

Isle of Skye:

① Talisker

- Skye's thin soils mean there are 21 springs feeding into the distillery
- barley is peated
- long ferments in wood
- 8 yr, 10 yr, Storm, 57°N, Dark Storm, 25 yr, 30 yr.
- "in the shadows of the Cuillin hills" (on label)

Isle of Mull:

① Tobermory

- mossy, vegetal, red-fruited, rich + round
- 15 yr + 32 yr.

Isle of Arran:

① Arran

- located on the highland boundary
- Tair - half in the highlands + half in the lowlands.
- distillery built in 1995
- fragrant, floral, fruity, spicy.
- 10 yr, 12 yr, 14 yr.

Isle of Jura:

① Jura

- Distillery on Jura, closed in 1910.
- wasn't until the 1960s that one was reopened.
- FERN - used, along w/ subtle peat, to dry malt.
- 9 yr, 16 yr, 21 yr.

ISLAY

SOUTH COAST

- "Kildalton Trio" - the biggest, peatiest whiskies of all.

① Ardbea

- closed in 1982 and resurrected by Glenmorangie in 1997
- holes in stock profile gave need for creative blending and no age statements:

- Uigearail - traditional style
- Corryvreckan - French oak
- Airigh nam Beist - homage to old 17 year old

② Lagavulin

- "If Ardbea is sooty, Lagavulin is more like a beach campfire"
- owned by Diageo
- make an 8 yr, 12 yr, 16 yr, 21 yr., and Distiller's Edition

③ Laphroaig

- "heavy & frothy, like walking down a freshly tanned seaside road on a hot day."
- all barrels come from Makers Mark
- 10 yr, 18 yr, 25 yr, Quarter Cask

Port Ellen

- "Port Ellen Maltings" supplies peated malt for some of the island's plants (owned by Diageo).
- Until 1983, there was also a distillery there under the same name.

EAST COAST

① Bunnahabhain

- Built to provide spirits for blends, in 1886
- started being marketed as a single malt in the 1980s.
↳ At first derided for not being peaty enough, and has since reverted to a peatier style.
- 12 yr, 18 yr, 25 yr, Tòiteach

② Cool Va

- largest distillery on Islay (capacity)
- Smokey bacon, seashells + grass → 8 yr, 12 yr, 18 yr.
- Sometimes run w/ peat at all.

ISLAY

CENTER + WEST

① Bannockburn

- in 1726, Daniel Campbell bought Islay w/ compensation he received for his house burning down in the Malt Tax Riots.
 - ↳ Grandson Daniel the Younger built Bannockburn
- most overtly smoky of the Islay malts
- 12yr. 15 yr.

② + ③ Bnichladdich + Kilchoman

- 2001: Bnichladdich reopened after 7 years of silence
- Botanist gin!
- Remy Cointreau purchased in 2012
- base is Lemmy, malty & sweet
 - ↳ Port Charlotte + Octomore bottlings are heavily peated
- Kilchoman: newest & smallest distillery on Islay
 - "take Islay back to its roots"
 - 2007: inaugural release (bottled + released in 2013)

CAMPBELTOWN

- The foot of the Kintyre peninsula.
- One home to at least 34 distilleries, 15 of which disappeared during the 1850s depression.
- Became a commodity for blends, though: desired smooth, oily quality kept it booming in the end of the 19th century, but by 1920, there was only 1 distillery.
 - ↳ overproduction leading to drop in quality
 - ↳ the inability to get rid of waste water
 - ↳ post WWI fall in demand
 - ↳ coal pollution
 - ↳ UK duties rose significantly in 1918
 - ↳ prohibition in the USA + Great Depression
- 1934 - Springbank + Glen Scotia opened

① Springbank

- the only Scottish distillery to malt, mature, distill + bottle 100% on site.
- very traditional: low gravity worts, extra long ferments, low strength wash → promotes fruitiness + esters.
- three stills, "2.5 times distilled"
 - the wash still → low wines
 - the low wines still → feints
 - second low wines still → 20% low wines + 80% feints
- Hazelburn - unpeated + triple distilled
- Longrow - peated + double distilled (heavily)

② Glen gyle

- silent distillery purchased + renovated by the family that owns Springbank.
- Whisky is called Kilkerran, as the brand name Glen gyle is owned by Glen Scotia!
- fruity + spicy style

③ Glen Scotia

- full production since 1999
- more of a malty, floral style - 10 yr + 12 yr.

LOWLANDS

- where the bulk of Scotland's whisky is produced, matured & blended
- Closest to England - always been the most commercially minded region.
- Capital of grain whisky production
- triple-distillation → Irish immigration
- fastest growing mat region in Scotland - Aislea Bay, Duffmill, Annandale, Kingbarns - all opened w/in the last 5 years.
- Unre Fife and Glasgow are.

AUCHENTOSHAN

- only distillery that exclusively practices triple-distillation → build strength & lighten character.
- malty & dry character, fruity & spicy w/ older expressions.

IRISH WHISKEY

19th century - higher taxes on malted barley led distillers to use unmalted barley

- In the mid-19th century, Irish whiskey was extremely popular + profitable, but by the 1930s, there were only 6 distilleries.

- independence cut off the British Empire trade
- prohibition in the US
- isolationist policy w/ high domestic taxes & an export ban.

- By the 1960s, the 3 remaining distilleries joined together to create Irish Distillers Limited (IDL)

→ By the 1970s, only two remained: New Midleton + Bushmills

- Irish Whiskey Act of 1980:

- must be distilled + aged in Ireland
- must come off the still at less than 94.8% ABV
- aged for at least 3 years in casks not exceeding 700 liters

* Single Pot Still Whiskey *

- distilled in a pot still at a single distillery - triple distilled
- made from malted + unmalted barley (can have other grains too)
- historically referred to as "pure pot still whiskey" or "Irish pot still whiskey"
- requires min. 30% each of unmalted + malted barley
- cannot be peated
- Green Spot, Yellow Spot, Jameson 15 yr Old pure pot still, Redbreast (12, 15 + 21 yrs.)

Other types of whiskey made in Ireland:

- ① Blends - mixing column still product w/ richer + more intense pot still product - Black Bush, Bushmills, Clontarf, Midleton Very Rare, Paddy, Power's, Tullamore Dew
- ② Single Malt - 100% malted barley, pot still, single distillery - Bushmills (10, 16, 21 yrs), Connemara Peated Malt, Tullamore Dew Single Malt
- ③ Single Grain - Rare, column-stilled, mainly used for blending - Kilbeggan Single Grain, Teeling's Single Grain

Irish Whiskey

① Bushmills

- northernmost distillery in Ireland
- the oldest licensed distillery in the world, est. 1784
- owned by Diageo 2005-2014, now owned by Jose Cuervo
- does not make a single pot still whiskey
- whiskeys produced:
 - Old Bushmills
 - Black Bush
 - 1608
 - Bushmills 10, 12, 16 + 21 year old single malts

Blends → contains high amount of single malt aged in oloroso sherry casks

② Echlinville

- up until its opening in 2013, Northern Ireland had only 5 and one distillery: Bushmills (Coleraine closed in 1978)

③ Cooley

- south of Echlinville on the eastern coast -
- converted from a potato alcohol plant in 1978, owned by Beam Suntory since 2011.
- Cooley offered diversity of Irish styles - 1DL meant only triple distilled + unpeated.
- renamed Kilbeggan Distilling Company w/ Beam's purchase.

- whiskeys produced:
 - Kilbeggan - Blended
 - Connemara - Peated Single malt
 - Tyrconnel - Single malt

second still that fell silent in 1953 and was bought by Cooley in 1988 (they bought the site for its warehousing capabilities and didn't discover the still until 2007)

④ Tullamore Dew

- Daniel Edmund Williams, general manager + owner
- Closed in 1954 → the brand was bought by Powers and produced by IDL to the original recipe (at Middleton)
- 2010: the brand was bought by William Grant + Sons who built a new distillery
- Pot still + grain plant → Blended style

IRISH WHISKEY

5) New Middleton

→ the source of most all pot-stilled Irish whiskey!

- South side of Ireland
- by 1867 Old Middleton was producing a million gallons a year & had the largest still in the world.
- IDL = New Middleton^{pot}.
- Whiskeys made:
 - Jameson Original, 12, 18
 - Powers 12 yr, John's Lane
 - Red Breast 12, 15, 21
 - Green Spot
 - Middleton Bann Crochet Legacy

New distilleries not yet w/ aged product:

- Alltech
- Blackwater
- Dingle
- Glendalough
- Teeling
- West Cork Distillers
- Connacht Whiskey Company

American Whiskey

- original colonies distilled fruit, apples, then rye. It wasn't until the late 18th c., when Kentucky was colonized, that corn became a major player.
- 1791 - Whiskey Rebellion
 - whiskey tax was first tax imposed on a domestic product by the newly formed national government.
 - centered in the eastern colonies, which pushed whiskey production even further into the South
 - repealed in 1801
- James Crow, 1825 +
 - invented the sour mash
 - brought scientific rigor to whiskey production
- Elijah Craig
 - credited w/ the "inventio. of bourbon" → said to be the first to age bourbon in charred, new casks.

SOUR MASH - each new fermentation is conditioned w/ spent mash, from previous distillation. Acid introduced controls bacteria and pH balance for yeast to work properly.

"WHITE DOG" = new make (fresh, unaged spirit off the still)

LEGAL REQUIREMENTS [BOURBON]

- 1 Made in the U.S.A.!
- 2 At least 51% Corn
- 3 Aged in new, charred oak containers
- 4 Distilled to no more than 160 proof
- 5 Entered into barrel for aging at no more than 125 proof
- 6 Bottled at min. 80 proof

only difference for Rye = 51% Rye
Corn = 50% Corn

→ No minimum aging period! Bourbon < 4 years old must have AGE STATEMENT

STRAIGHT BOURBON WHISKEY... min. 2 years old.

↓
Age of youngest whiskey

OTHER FACTORS:

- ratio of grains
- yeast type
- barrel size / char
- placement in warehouse
- WATER

"Bourbon" - one of the first counties founded after the American Revolution in 1785 - named after the French Royal Family. Within "Old Bourbon" was the principal port on the Ohio River in Maysville, Kentucky, from which whiskey shipped - "Old Bourbon" was stenciled on the barrels and soon came to be associated w/ corn whiskey.

American Whiskey

• 13 large distilleries owned by 8 companies produce over 99% of the whiskey made in the US.

1. Beam Suntory - Booker Noe Distillery (Boston, KY)
- Jim Beam Distillery (Clemmont, KY)
- Maker's Mark Distillery (Loretto, KY)
2. Brown Forman - Brown Forman Distillery (Shively, KY)
- Jack Daniel Distillery (Lynchburg, TN)
- Woodford Reserve Distillery (Versailles, KY)
3. Campari - Wild Turkey Distillery (Laurensburg, KY)
4. Diageo - George Dickel Distillery (Pittsboro, TN)
5. Heaven Hill - Bernheim Distillery (Louisville, KY)
6. Kirin - Four Roses Distillery (Laurensburg, KY)
7. MGP Ingredients - MGP Indiana (Laurensburg, IN)
8. Sazerac - Barton 1792 Distillery (Bardonia, KY)
Buffalo Trace Distillery (Frankfort, KY)

- Bulleit Rye
- Dickel Rye [Diageo]
- Highwest Rye
- Redemption Rye
- Templeton Rye

LAIRD'S

- Laird & Company is a distillery based in Colts Neck Township, NJ.
- Oldest licensed distillery in the US. received license No. 1 in 1780.
- Distilling ceased in NJ in 1972; Laird's only blends, ages + bottles here.
- Laird's obtains its apples & distills in Virginia's Shenandoah Valley.
- Applejack is a blend of 35% apple brandy & 65% neutral spirits
- Laird's Old Apple Brandy - 100% apple brandy, aged 7.5 years

SOUR MASH %: the more sour you use, the less sugar the yeast have to work w/ - shorter fermentations and generally milder spirits. Early times uses 20%, woodford only 10%.

MAJOR KENTUCKY DISTILLERIES

BUFFALO TRACE (Frankfort, KY) → 5 different mash recipes

Owner: Sazerac Company

Master Distiller: Harlen Wheatley

Provenance: originally Ancient Age Distillery.

Whiskeys Made:

- Handy Rye Antique Collection
- Sazerac Rye 6YR, Antique Collection
- Buffalo Trace Bourbon, Experimental
- Van Winkle
- Elmer T. Lee
- Weller Special Reserve, 10Y, 12YR, Antique
- Hirsch (some bottlings)
- Eagle Rare 10YR, Antique
- George T. Stag
- Blanton's
- Ancient (Ancient) Age

WILD TURKEY (Lawrenceburg, KY)

Owner: ~~Bernard Richard~~, Austin Nichols (Campari)

Master Distiller: Jimmy Russell - typically, the lowest

Whiskeys Made: (+ Eddie, son) corn % bourbon, in the low 70s.

- Wild Turkey 101 bourbon/rye
- Russels Reserve bourbon/rye
- Wild Turkey 80 proof
- Wild Turkey Kentucky Spirit
- Wild Turkey special releases

MAKER'S MARK (Loretto, KY) MD: Greg Davis

Owner: ~~Allied Domecq~~ • 10% corn, 10% wheat, 14% malted barley

Whiskeys Made:

- Maker's Mark
- Maker's Mark 46 → aged (finished) in French oak.

JIM BEAM (Clermont & Boston, KY)

Owner: Fortune Brands BEAM Summary

Master Distiller: Fred Noe

Whiskeys Made:

- Jim Beam White, Black, Rye
- Basil Hayden - high in rye
- Old Grand Dad
- R1
- Baker's
- Booker's
- Knob Creek
- Old Overholt

different % off still, in barrel + mashes + placement in warehouse

owned by Diageo

Master Distiller: Chris Morris

Whiskeys Made:

- Early Times → 79% corn, 11% Rye, 10% MB
- Old Forrester → 18% Rye

BERNHEIM

HEAVEN HILL (Louisville, KY)

Provenance: Site of the old Bernheim distillery.

Owner: Diageo HEAVEN HILL

Master Distiller: Craig Beam

Whiskeys Made:

- Old Fitzgerald - wheated
- Elijah Craig
- Evan Williams
- Rittenhouse Rye
- Parker's Heritage
- Fighting Cock
- Henry McKenna
- Bernheim Wheat Whiskey
- Kentucky Pride

WOODFORD RESERVE (Versailles, KY)

Provenance: Formerly Labrot & Graham distillery.

Owner: Brown-Forman

Master Distiller: Chris Morris

Whiskeys made:

- Woodford Reserve → same mash as Old Forrester → triple distilled in pot stills.

FOUR ROSES (Lawrenceburg, KY)

Provenance: Distillery was opened by 'Old Joe' Payton in 1818. After WWII, Seagrams was bought and renamed. In 2001, the brand and distillery was acquired by Kirin Brewery.

Owner: Kirin Brewery • Two mashbills: OE (75% corn, 20% Rye, 5% MB) • OB (35% Rye)

Master Distiller: Jim Rutledge

Whiskeys made:

- Four Roses
- Bulleit Bourbon
- Bulleit Rye

Bulleit Rye is made at map in Indiana

BARTON (Bardstown, KY)

Provenance: previously Tom Moore distillery

Owner: Constellation Brands SAZERAC

Master Distiller: Greg Davis

Whiskeys made:

- Very Old Barton
- Fleischmann's
- Ridgemont Reserve 1792
- Kentucky Gentleman

BROWN-FORMAN/EARLY TIMES (Shively, KY)

Owner: Brown-Forman

OTHER VS DISTILLERIES

HIGH WEST (Park City, Utah)

- now owned by Constellation brands
- used to purchase a lot from mop in Indiana

TUTHILLTOWN SPIRITS (Hudson Valley, NY)

- Bourbon
- Rye
- 4 Grain

ANCHOR DISTILLING (San Francisco, CA)

- purchased by Frederick Louis Maytag III in 1965
- In 2010, purchased by The Griffin Group
- In 2017, it was announced that Sapporo would acquire the company
- beer is hugely important - pioneered the "Steam" (CA common) style.
- Now called HOTALING & CO. → no longer affiliated w/ Anchor Brewing.
- known for gins: Old Tom, Genevieve, Junipers
- known for whiskey: Old potrens Straight Rye - charred new oak aging
Old potrens 18th C. Style - lightly toasted oak aging
Old potrens Single Malt
- now also own: Ypióca Cachaca, C. Drouhin Calvados, Luxardo, Bav Sol Pisco, Chinaco, Hirsch & Nikka

MCCARTHY'S (Mt. Hood, OR)

ST. GEORGE'S (Alameda, CA)

CANADIAN WHISKY

• Canada's Food & Drugs Act require that whisky labeled as "Canadian Whisky," "Canadian Rye Whisky" or "Rye Whisky" be mashed, distilled & aged at least 3 years in Canada [in max. 700 liter barrels]

- MAY contain caramel color + flavoring
- final whisky must be at least 40% ABV

• historically, Canadian whisky has been predominantly corn (and still is), but rye began to be added in small amounts for added flavor. Rye is now the most associated grain w/ Canadian whisky, but still only makes up a small amount of mash bills.

CANADIAN CLUB

- owned by Beam Suntory
- popularly known as **CC**
- Created by Hiram Walker & Sons (1854-1987), owned by Allied Domecq (1987-2005), and Fortune Brands (2005-2011)
 - ↓ first set up a still in Detroit, but moved it to Ontario w/ impending prohibition.

- whiskies:

1. 40 / premium - base version
2. RESERVE - 1040
3. CLASSIC - 1240
4. 100 PROOF - 40
5. SHERRY CASK
6. CHAIRMAN'S SELECT - 100% RYE
7. LTD

OTHER CANADIAN WHISKIES:

- Canadian Mist
- Crown Royal
- Seagram's
- PENDLETON
- PEMBERTON
- Highwood Distillery

JAPANESE WHISKY

- First commercial production - 1924, w/ the opening of Yamazaki.
 - original distiller was ~~Masa~~ Masataka Taketsuru, who would later split & found Mitsa. The gentleman who owned Yamazaki, Shujiro Torii, would found Suntory.
 - Taketsuru studied in Scotland.
- Different model for blended whisky than Scotland/differences in general:
 - for Scotch, blenders buy components from different distilleries
 - in Japan, the industry is vertically integrated, meaning whisky companies own both the brand and the distilleries.
 - clarified wort gives absence of cereal notes
 - Japanese oak (+ Sherry, ex-burbon, new, etc.)

Distilleries



Yamazaki

- owned by Suntory
- make a "medium style" a "heavy style" and a "heavily peated" style
- use all different types of oak
- 12 yr, 18 yr, 25 yr. → Not just more aging like Single Malts from Scotland, but actually different whiskies.
 - ↓ Sherry + Japanese oak
 - ↓ just Japanese oak
 - ↑ just Sherry cask



Hakushu

- owned by Suntory
- opened in the 1970s as the world's largest malt distillery
- few types of barley - unpeated to heavily peated - ~~different~~ six different types of still, 2 types of yeast.
- in Saikawa Japanese Alps - spring water, temperature swings
- 12 yr, 18 yr, 25 yr.

JAPANESE WHISKY

3 Miyagikyo

- the first of Nikka's two malt distilleries
- mostly unpeated barley
- stills all uniform shape
- lighter style
- grain stills here as well - corn, corn/malt
- "Nikka single cask Coffey malt"
- 15 yr.

4 Yoichi

- Nikka's other distillery
- in the Northland of Japan - where Taketsuru always had a vision for making whisky (spiritual home is Campbeltown)
- Big, oily, smoky, fragrant style of whisky
- 10 yr, 12 yr, 15 yr, 20 yr

Other single malt distilleries:

- 5 Kawirawa
- 6 Fuji-Gotemba
- 7 Chichibu
- 8 Mars Shinshu
- 9 White Oak

JAPANESE BLENDS:

- Japan's first blend - Shirofuda (~~TAKKA~~) - was released in 1929 by Shinjiro Torii. Big & smoky, it flopped. Next release was Kakubin, which remains one of Japan's top-selling whiskies.
- Hibiki - launched in 1989 - is Suntory's high-end blend range.