

AD

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AMERICAN DISTILLER: A SOURCE OF INFORMATION ON THE DISTILLING PROCESS

A Distilling Story

by Eladio Cruz



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American Distiller is a PDF newsletter published 26 times a year by the American Distilling Institute. The newsletter is e-mailed to members, distilleries, VIP's, newspapers, magazines and news services covering the distilling industry.

AD promotes an open discussion of column rectification and the pot distilling process. This includes Alambic distillers doing traditional eau de vie and brandy distilling. AD covers spirit wholesalers and liquor retailers and the important roll they play in the industry.

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I've worked in wineries and breweries for most of my life. Wanting to "round out" my knowledge, or "complete the trinity", as I like to think, I've been learning how to make whiskey and brandies at home and eventually I'd like to start a small distillery. Beer and wine are easy enough to learn about. These are legal activities.

Therefore you will always find someone to sell you a sack of malt or a ton of grapes and give you a few pointers. Add a few good books to the equation and with some practice you can turn out a fine Pilsener or Zinfandel. Over the years, you can fine tune your craft, throw lots of parties and if you find it your calling, you can try to make a living at it. Or, maintain your common sense and just enjoy it at home. Whatever you want to call the home brewer/winemaker/distiller, whether craftsperson, artist, or just homemaker, this person has a passion. A passion for wanting to create, for learning, for solving problems. In fact I'm always a little suspect when I meet a brewer or winemaker who didn't start their learning at home. So where does the distiller get his or her start if trying to learn is punishable by jail time?

The home distiller (felon), or aspiring commercial distiller (probable felon), has a few obvious obstacles to clear just to learn the craft. Fortunately (and I never thought I would be saying this), there is the Internet. As always, prohibition breeds creativity. Just spend some time at one or two of the discussion groups provided through Yahoo. See <http://groups.yahoo.com/group/distillers>, or for beginners, new_distillers@yahoo.com. There are also Web sites galore. Tony Acklands site

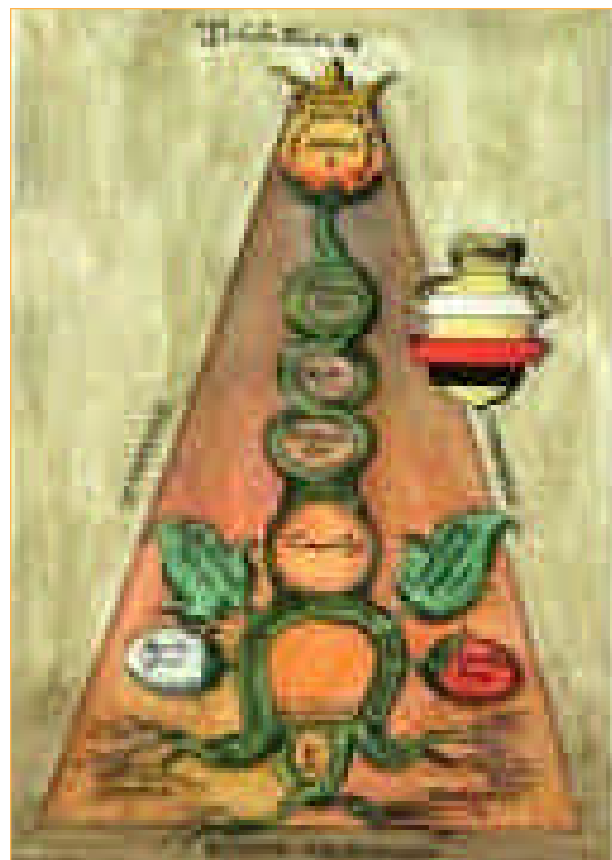


ILLUSTRATION FROM "THE ART OF DISTILLATION", LONDON 1651, BY JOHN FRENCH

www.homedistiller.org and the numerous links you find there will keep you busy for days. There are also many books to be had, again many available online. A few that are very well done “home published” books include Mike Nixon’s *The Compleat Distiller*, Ian Smiley’s *Making Pure Corn Whiskey* and John Stone’s *Making Gin and Vodka*, all available through links on Acklands site. They include histories, still design, operation and mash recipes. There are also a few textbooks put out by industry and academia which are helpful but may be geared towards large scale distillation. While the theory is the same, the practical knowledge in these books may not be what you need. Much of the alcohol industry is fuel alcohol.

What about a formal education at a university? I believe UC Davis offers only one class called *Distilled Beverage Technology as Part of their Viticulture and Enology program*. There is probably not enough demand for workers in the beverage side of the industry to warrant university programs. The fuel distillers probably start their careers with a degree in chemical engineering, which would be over-kill for a few gallons of backyard Eau de Vie, or even a small commercial operation.

Having become proficient on my home still and realizing I needed to talk to like-minded people, I decided to attend “Alcohol School”, a \$1,000 week long conference hosted annually by a company called Alltech, a global supplier of yeasts and enzymes for the alcohol and animal food industries.

This conference takes place in Lexington Kentucky, the horse racing and, more importantly, bourbon capitol of the world. It has also been held in Dublin for a couple of years. Supposedly, the esteemed British Harriot Watt University has something to do with Alltech’s Alcohol School, but I never figured out the relationship.

“Alcohol School” may be a bit of a misnomer for the conference. It’s more a series of lectures by experts in the industry, most are seemingly on the Alltech payroll (the plugging never stopped).

While there are many informative talks, this conference has to cover both beverage and fuel alcohol, so some sessions are obviously worth skipping in order to visit local distilleries for a more sensual education. Subjects of the 2001 conference included yeast metabolism, the roles of enzymes and nutrients (emphasis always on those manufactured by Alltech), infections, fundamentals of distillation, and much, much more. Very similar to a wine or beer conference. There were also a few talks on specific spirits production including Scotch, Tequila and Rum. See www.Alltech.com for a more complete syllabus. The key to these talks was asking the speakers the right questions. They all seemed very knowledgeable, but understandably, weren’t aiming their lectures towards small distillers. A textbook, not surprisingly called *The Alcohol Textbook*, was

also supplied. Each chapter written by one of the “School’s” speakers. I don’t think I would recommend paying the \$150 price tag, but then again, distillers are hard pressed for reading material. Short labs were also held at an Alltech facility near the conference center. The labs were unbelievably well equipped, being functional labs for Alltech. Labs covered a wide range of subjects and the instructors were a wealth of experience and information. While very interesting, many labs were geared towards larger industry, i.e.; HPLC, gas chromatography and FAN determination tests — tests a small distiller would send out for if needed. Some practical labs for the smaller distiller included acid titration and cell counting. In addition, there was a short computer lab and tasting lab which were not thrilling, but not bad either. Alltech also holds one to two week courses throughout the year for distillers on subjects such as fermentation, microbiology and sensory analysis. It turns out that many of the top Alltech people were previously the top people of the recently defunct Seibel Institute of Brewing in Chicago. They seem to be setting up a similar series of educational short-courses for distillers as they held for brewers.



ILLUSTRATION FROM “THE ART OF DISTILLATION”, LONDON 1651.
BY JOHN FRENCH

What I really got out of this conference was meeting other people. The industry is so seemingly small and scattered, it’s important for people with these common interests to get together and talk about what’s happening.

There were about 130 people attending the conference this year from at least a dozen countries. A few of them, as it turned out, want to do the same thing as me, or were already doing it. I was able to talk with these people about small scale distilling, suppliers, the market etc. And, of course, festivities were hosted almost every night by Alltech. One held at the beautiful Labrot and Graham Distillery, another at a microbrewery, these parties were where the real business of information exchange took place.

Was it worth the grand I spent? For me, it was. I plan on making a living distilling. This gave me a sense of what is going on around the country. A boost of confidence in realizing I wasn’t the only one with this damn fool idea. The connections and friendships I made will help me get started and help start a community of trade. Also, I think I have five years to write it off my income taxes. Now I need to figure out five years income whilst the whiskey is aging.

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Eladio Cruz has been making wine and beer for 15 years. He would like to distill and age spirits, but has more time than money. Eladio enjoys mezcal and the corridos of Chalino Sanchez.

Spirited Cooking

by Hrayr Berberoglu

After a party there is always left over liquor, liqueur and wine, unless your guests are absolutely determined to consume every last drop of alcohol.

No one should cultivate such friends and associates. When you have left over liquor, there are three possibilities; use it gradually in cooking, drink daily a glass or two, or stage another party!

Once a bottle of wine is opened, the contents start oxidizing, thus left over wine should be used at the latest within two days!

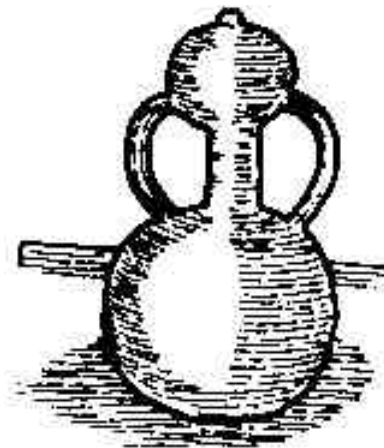
Wine, of course, has been used in cooking for centuries. First you can marinate tough meat cuts to tenderise and impart additional flavor or deglaze the pan in which the meat was sautéed to loosen the bits of meat and create a pan-sauce. Adding a bit of heavy cream will render the sauce smooth. In a pinch, small pieces of cold butter can be substituted for the cream.

Always use dry wine when proceeding with the above technique, and employ white wine for white meat or fish. Red

meat, being more flavourful, calls for dry red wine.

Always use a good quality wine for cooking. It is a fallacy to believe that undrinkable wine can be used for cooking!

You can use sweet wines for desserts very successfully, particularly in berry-based sauces.



But liquor deserves to be mentioned as a cooking ingredient. Think of spirits as liquid spices, for a little goes a long way. When you add spirits to a recipe early in the cooking, the high temperature will help evaporate much of the alcohol.

Adding liquor later, or not cooking, as may be the case in dessert recipes, will preserve much of the liqueur.

Dark spirits work better with dark meat and lighter spirits go better with white meats.

There is such an abundance of liquors and liqueurs that the combinations and permutations are almost infinite.

Adventurous cooks add a splash of B and B to sautéed mushrooms, or for that matter, Benedictine or even Irish Mist. These are excellent drinks on their own either after a rich meal, with a cup of fine unadulterated coffee, or just as a nightcap to conclude a day of work or leisure.

Whisky, any kind of whisky, can add flair to stews, sautéed chicken breast, or even to sauces. Next time you make a batch of

tomato sauce from locally grown ripe tomatoes, add a few ounces of Bourbon or rye whisky and taste the difference! Of course, you can use a good red wine to enhance both color and taste!

Scotch whisky is known to enhance a well prepared onion soup appropriately gratineed with grated Emmenthal and Gruyere cheeses, but you can also use a mixture of buffalo mozzarella and well-aged Cheddar.

When serving bread pudding, offer a Bourbon whisky sauce either mixed with Jack Daniel's Black label, Jim Beam or Maker's Mark or Blanton's single barrel. The last two are actually sipping whiskies, but would make your sauce so much better!

Jim Beam or Old Forester can be used for basting a glazed ham and many consider it a must for BBQ sauces, even adding them to store-bought concoctions.

While many old-fashioned cooks use rum for fruitcake recipes, rest assured that this venerable liquor would enhance grilled or baked root vegetables or roast ham. You can flame bananas and/or pineapple chunks with regular or spiced rum.

Vodka splashed over steamed vegetables or in sauces for pasta can do wonders to elevate humdrum food to heavenly heights.

A splash of gin in a tomato-flavoured soup provides spicy nuances nothing else can match.

Try an ounce of fine gin in a portion of gazpacho.

Vodka and tomato juice have an affinity few other liquors can muster, but vodka in a tomato sauce will certainly add zip to everyday food. Even if you use store bought tomato sauce, the addition of a little vodka is bound to perk it up.

So, when you have liquor in your cupboards use them imaginatively, much like professionals do in restaurants.

The U.S. Department of Agriculture has published the following table of alcohol content in cooked foods:

Preparation method	% Retained
Alcohol added to boiling liquid and removed from heat	85
Alcohol flamed	75
No heat, stored overnight	70
Baked/simmered, alcohol stirred into mixture:	
15 minutes	40
30 minutes	35
60 minutes	25
90 minutes	20
two hours	10
two-and-a-half hours	5

ttt

Hrayr Berberoglu is professor emeritus of hospitality and tourism management specializing in food and beverage.

A Sip Through Time

This passage is excerpted from *A Sip Through Time*, a Collection of Old Brewing Recipes, by Cindy Renfrow, 1994, p. 209.

INTRO:

I confess to having developed a taste for fine liqueurs while I was in Germany, where the major sport for American ex-pats is going out for supper and drinks. In Germany, the pacing of dining is much slower, giving one time to have a quiet conversation with friends and relax by savoring a succession of interesting beverages. To start, one might have some prosecco or Campari, followed by an appetizer, and then an assortment of fine wines or beers to go with the main meal. After coffee (a full-bodied beverage worthy of the name) comes dessert, which is in turn followed by a dazzling selection of fine liqueurs. (If you go to an Italian restaurant, the liqueurs are frequently "on the house", and your server may pull up a chair and join you in a toast.) My friends and I would frequently order an assortment of unfamiliar liqueurs and pass them around the table for everyone to have a taste; if you were lucky, you ended up with your favorite.

Anisette de Bourdeaux – 1866

3-1/2 gallons grain alcohol	1 oz. fennel
10 lbs. sugar	1 oz. coriander
7 pints water	4 oz. star anise seed
10 oz. green anise seed	2 oz. hyson tea (a type of Chinese green tea)

Green anise seed, ten ounces; hyson tea, two ounces; star anise seed, four ounces; coriander, one ounce; fennel, one ounce. Macerate for fifteen days in three and a half gallons of alcohol; distill in the water-bath; then make a syrup with ten pounds of sugar and seven pints of water; mix well, and filter.

(From *The Art of Confectionery*, 1866.)

Another Anisette de Bourdeaux – 1866

2-1/2 gallons water	28 lbs. sugar
3-1/2 gallons grain alcohol	8 oz. green anise seed
1 quart orange-flower water	4 oz. sassafras ¹
1 quart water	1 lb. dill [seed?]
4 oz. fennel	4 oz. pearl gunpowder tea
4 oz. coriander	1 oz. musk melon seed ²

Dill, one pound; green anise seed, eight ounces; fennel, four ounces; coriander, four ounces; sassafras-wood cut fine, four ounces; pearl gunpowder tea, four ounces; musk seed, one ounce. Macerate all these substances in three and a half gallons of alcohol for six days; then distill in the waterbath; add a syrup made with twenty-eight pounds of fine sugar, two and a half gallons of distilled water, one quart of double-distilled orange-flower water, and one quart of pure water. (ibid.)

¹ Sassafras sassafras (L.) Karst., Lauraceae. The root cambium, or growth layer, of sassafras contains an aromatic oil which was used as a flavoring agent; it has since been found to be toxic, and commercial use of sassafras extract has been banned in the United

States. An extract of birch mixed with sassafras (toxin removed), is now available commercially.

² "The eede [of cucumbers] is v ed phy ically in many medicines that erue to coole, and a little to make the pa ages of vrine lipperry, and to giue ea e to hot di ea es ... The eed of the e Melons [musk melons] are v ed as Cowcumbers phy ically, and together with them mo t v ually." (Parkinson, John. *Paradisi in Sole Paradi us Terrestris. Or A Garden of all orts of plea ant flowers which our English ayre will permitt to be nour ed vp*, etc. Collected by John Parkin on Apothecary of London. Humfrey Lownes and Robert Young. London, 1629, p. 525.)



This beautiful schnapps bottle made of violet- and white-colored glass with silver stopper comes from Germany and dates to circa 1590.

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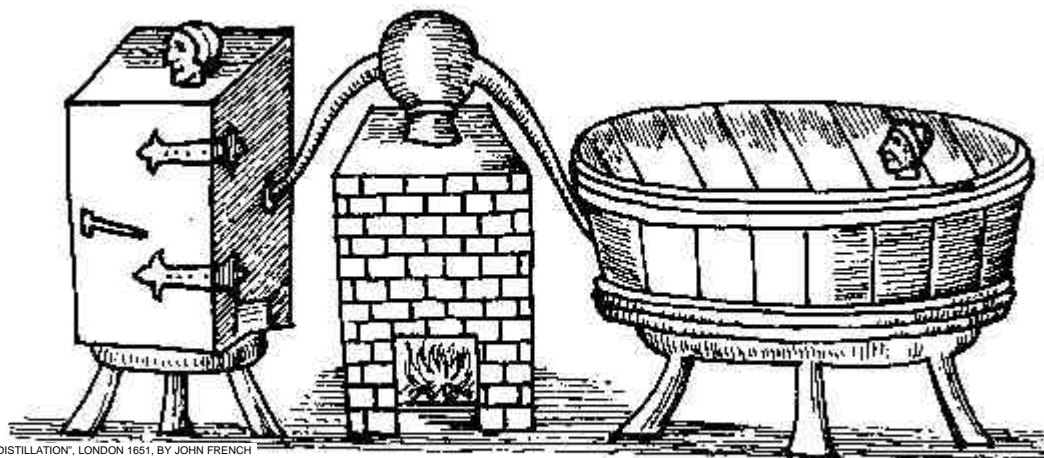


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