

Chapter 8: Stocks and Sauces

1. Stocks and Sauces

- a. French for stock: *fond* meaning “foundation” or “base”

2. Stocks

- a. A **Stock** may be defined as a clear, thin—that is, unthickened—liquid flavored by soluble substances extracted from meat, poultry, and fish, and their bones, and from vegetables, and seasonings
- b. **Ingredients**
 - i. Bones
 1. *Chicken stock* is made from chicken bones
 2. *White Stock* is made from beef or veal bones, or a combination of the two. Chicken bones or pork bones are sometimes added in small quantity
 3. *Brown Stock* is made from beef or veal bones that have browned in an oven
 4. *Fish stock* is made from fish bones and trimmings left over after filleting.
 - a. *Fumet* is often used for a flavorful fish stock
 5. *Lamb, game, turkey and other* stocks have specialized uses
 6. When certain connective tissues (*collagen*) break down, they form *gelatin*. This gives body to a stock. A well made stock thickens or even solidifies when chilled
 7. *Cartilage* is the best source of gelatin in bones
 - ii. Meat
 1. **Broth**
 - iii. Mirepoix
 1. Is a combination of onions, carrots, and celery
 2. White Mirepoix uses parsnips instead of carrots
 3. Cutting Mirepoix
 - a. 1-2” long cut in uniform pieces for long cooking times
 - b. cut into small pieces for faster cooking times
 - iv. Acid Products
 1. *Tomato products* contribute flavor and some acid to brown stocks. They are not used in white stocks because they would give an undesirable color
 2. *Wine* is occasionally used, especially for fish stocks
 - v. Scraps and Leftovers
 1. Scraps may be used in stocks if they are *clean, wholesome, and appropriate* to the stock being made
 - vi. Seasonings and Spices
 1. *Salt* is usually not added when making stocks
 2. *Herbs and Spices* should be used only lightly
 3. ***Sachet d’epices***
 4. **Bouquet garni** is an assortment of fresh herbs and other aromatize ingredients tied in a bundle with string
 5. **Typical Seasonings in stocks**
 - a. Thyme
 - b. Bay leaves
 - c. Peppercorns
 - d. Parsley stems
 - e. Cloves
 - f. Garlic
 6. Onions for flavor
 - a. *Oignon brûlé* (French for burnt onion)
 - b. *Oignon piqué* is a bay leaf, onion, and a clove

7. Ingredient Proportions
 - a. Bones- 80%
 - b. Mirepoix- 10%
 - c. Water- 100%
8. Ingredients for vegetable stocks
 - a. Starchy vegetables. Use only if clarity is not important
 - b. Avoid using Brussels sprouts, cauliflower, and artichokes.
 - i. Beets turn a stock red
 - ii. Avoid using spinach for long times
 - c. Ratios:
 - i. Vegetables- 4lb
 - ii. Water- 1 gal
 - iii. Sachet- 1

c. Procedures

i. Blanching Bones

1. *The purpose of blanching bones is to rid them of some of the impurities that cause cloudiness*
2. Procedure for blanching bones
 - a. Rinse the bones in cold water
 - b. Place the bones in a stockpot or steam-jacketed kettle and cover with cold water
 - c. Bring the water to a boil
 - d. Drain the bones and rinse them well
3. Preparing white stocks
 - a. Cut the bones into pieces, 3-4" long
 - b. Rinse the bones in cold water
 - c. Place the bones in a stockpot or steam-jacketed kettle and add cold water to cover
 - d. Bring water to a boil, and then reduce to a simmer. Skim the scum that comes to the surface, using a skimmer or perforated spoon
 - e. Add the chopped mirepoix and the herbs and spices
 - f. Do not let the stock boil. Keep it at a low simmer
 - g. Skim the surface as often as necessary during cooking
 - h. Keep the water level above the bones. Add more water if the stock reduces below this level
 - i. Simmer for the recommended length of time
 - i. Beef bones- 8-10 hours
 - ii. Veal bones 6-8 hours
 - iii. Chicken bones 3-4 hours
 - iv. Fish bones 30-45 minutes
 - j. Skim the surface and strain off the stock through a china cap lined with several layers of cheesecloth
 - k. Cool the stock as quickly as possible
 - l. When cool, refrigerate the stock in covered containers

4. Preparing brown stocks

5. Preparing fish stocks

6. Remouillage and other stock-related preparations

- a. Remouillage is a stock made from bones that were already used once to make stock

ii. Reductions and Glazes

1. Stocks are concentrated by boiling or simmering them to evaporate part of the water, this is called **reduction** or reducing
2. What are glazes?
 - a. A **glaze**-or, in French, *glace*-is a stock reduced until it coats the back of a spoon.
3. Kinds of glazes
 - a. Meat glaze, or *glace de viande*
 - b. Chicken glaze, or *glace de volaille*
 - c. Fish glaze, or *glace de poisson*
- d. Convenience bases
 - i. Judging quality
 - ii. Using bases
3. Sauces
 - a. Understand Sauces
 - i. The Functions of sauces
 1. A *sauce* may be defined as a flavorful liquid, usually thickened, used to season, flavor, and enhance other foods
 - ii. A sauce add the following qualities to foods:
 - a. Moistness
 - b. Flavor
 - c. Richness
 - d. Appearance
 - e. Interest and appetite appeal
 - iii. The Structure of sauces
 1. A liquid, the body of the sauce
 2. A thickening agent
 3. Additional seasoning and flavoring ingredients
 - iv. Liquid
 1. **Leading sauces, or mother sauces**
 - v. Thickening agents
 - vi. Other flavoring ingredients
 - b. Roux
 - i. Starches as thickeners
 - ii. Starches thicken by *gelatinization*
 - iii. *Mixing the starch with fat*
 - iv. *Mixing the starch with a cold liquid*
 1. **Slurry**
 - c. Roux Ingredients
 - i. **roux** is a cooked mixture of equal parts by weight of fat and flour
 - ii. Fat
 1. *Clarified butter*
 2. *Margarine*
 3. *Animal fats*
 4. *Vegetable oil and shortening*
 - iii. Flour
 - iv. Ingredient proportions
 1. *Equal parts by weight*
 - v. Preparing roux
 1. White roux
 2. Blond roux

- 3. Brown roux
- vi. Incorporating the roux
 - 1. General Principles
- vii. Proportions of roux liquid
- d. Other Thickening Agents
 - i. Starches
 - 1. *Beurre manie*
 - 2. *Whitewash*
 - 3. *Cornstarch*
 - 4. *Arrowroot*
 - 5. *Waxy maize*
 - 6. *Pregelatinized or instant starches*
 - 7. *Bread crumbs*
 - 8. *Vegetable purees, ground nuts, other solids*
 - ii. Egg Yolk and Cream Liaison
 - 1. Egg yolk emulsification
 - 2. Reduction
- e. Finishing Techniques
 - i. Reduction
 - 1. Using reduction to concentrate basic flavors
 - 2. Using reduction to adjust textures
 - 3. Using reduction to add new flavors
 - ii. Terminology
 - 1. Straining
 - 2. Deglazing
 - a. *Deglaze* means to swirl a liquid in a sauté pan or other pan to dissolve cooked partials of food remaining on the bottom
 - 3. Enriching with butter and cream
 - a. Liaison
 - b. Heavy cream
 - c. Butter
 - i. *Finishing with butter, or **monter au beurre***
 - 4. Seasoning
 - a. *Salt*
 - b. *Sherry and Madeira*
- f. Sauce Families
 - i. Leading sauces
 - 1. Milk
 - a. +white roux
 - i. Béchamel sauce
 - 2. White stock (veal, chicken fish)
 - a. +White or blond roux
 - i. Velouté
 - 3. Brown stock
 - a. Brown roux
 - i. Brown sauce or espagnole
 - 4. Tomato plus stock
 - a. +(Optional roux)
 - i. Tomato sauce
 - 5. Butter

- a. +Egg yolks
 - i. Hollandaise
 - ii. Small sauces
 - 1. Secondary leading white sauces
 - 2. Demi-glace
 - a. Demi-glace is defined as half brown sauce plus half brown stock, reduced by half.
 - 3. Small sauces listed twice
 - 4. Hollandaise and béarnaise
 - iii. Standards of Quality for sauces
 - 1. Consistency and body
 - 2. Flavor
 - 3. Appearance
 - iv. Other Sauces
 - 1. *Simple and compound butters*
 - 2. *Pan gravies*
 - 3. *Miscellaneous hot sauces*
 - 4. *Miscellaneous cold sauces*
 - v. Modern Sauces
- g. Production
 - i. Béchmael
 - ii. Velouté
 - iii. Espagnole or Brown Sauce
 - 1. Fond Lié
 - iv. Tomato sauce
 - 1. Coulis
 - v. Butter Sauces
 - 1. Melted butter
 - 2. Clarified butter
 - 3. Brown butter
 - a. Beurre noisette
 - 4. Black butter
 - 5. Meunière butter
 - 6. Compound butters
 - 7. Beurre blanc
 - vi. Butter-Enriched sauces
- h. Hollandaise and Béarnaise
 - i. Holding hollandaise sauce
- i. Pan gravies and other integral sauces
 - i. *Integral sauce* is a sauce based on the juices released during the cooking of meat, poultry, fish, or vegetable item
 - ii. *Jus* refers to unthickend juices from a roast
 - 1. *Au jus*- “with juice”
 - iii. *Pan gravy* is a sauce made with the juices or drippings of the meat or polultry with which it is being served
- j. Modern Sauces
- k. Broths and Jus
 - l. Bream reductions
- m. Salsa,s relishes, and chutneys
- n. Asian sauces

- o. Flavored oils
- p. Molecular gastronomy