Board & Bites: Crafting Holiday Charcuterie

Historical Context of Charcuterie

The word charcuterie comes from the French chair (flesh) and cuit (cooked), originally referring to shops that sold cooked and cured meats. The practice dates back to ancient Egypt and Rome, where salting, smoking, and curing were essential for preserving meat before refrigeration.

By the 15th century, charcuterie became a formal trade in France, with guild-regulated artisans called charcutiers crafting ready-to-eat pork products. Over time, it evolved into a culinary art form. Today, charcuterie boards are globally popular, combining meats, cheeses, fruits, and spreads while honoring traditions of preservation, craftsmanship, and presentation.

The Science of Charcuterie

Charcuterie is a blend of culinary tradition and food science, rooted in preservation techniques that enhance flavor, texture, and safety. Understanding the science behind these methods helps us appreciate the complexity of each bite.

Brining

Brining is a preservation method that involves soaking meat or seafood in a saltwater solution. It works by:

- **Osmosis**: Salt draws moisture out of microbial cells, inhibiting their growth.
- **Protein Modification**: Salt alters muscle proteins, improving water retention and tenderness.
- **Flavor Infusion**: Herbs, spices, and aromatics added to the brine penetrate the food, enhancing taste.
- **Types of Brining:**
  - **Wet Brine**: A liquid solution of salt, sugar, and flavorings.
  - **Dry Brine**: Salt and seasonings rubbed directly onto the surface of the meat or seafood.

Brining is especially useful for seafood like shrimp or fish, helping maintain moisture during cooking or smoking.

Smoking

Smoking is both a flavoring and preservation technique. It exposes food to smoke from burning wood, which contains antimicrobial compounds and antioxidants.

Benefits of Smoking:

- **Preservation**: Smoke contains phenols and formaldehyde that inhibit spoilage.
- **Flavor Development**: Adds depth through compounds like guaiacol and syringol.
- **Texture Enhancement**: Smoking can firm up proteins, especially in seafood.
- **Types of Smoking:**
  - **Cold Smoking**: Keeps temperatures below 90°F; used for flavoring without cooking (ideal for smoked salmon).
  - **Hot Smoking**: Cooks and flavors simultaneously; used for meats and seafood.

DIY smoked seafood, featured in this workshop, showcases how traditional techniques can be adapted for modern culinary creativity.

Other Preservation Techniques

- **Curing**: Uses salt, sugar, and sometimes nitrates to draw out moisture and prevent microbial growth.

- **Fermentation**: Introduces beneficial bacteria that produce acids and flavor compounds.
- **Drying**: Reduces water activity, making food less hospitable to spoilage organisms.

Together, these methods form the foundation of charcuterie, transforming raw ingredients into shelf-stable, flavorful components for your board.

Sensory Science in Flavor Pairing

Flavor isn't just about taste—it's a multisensory experience shaped by how our brain interprets signals from **sight, sound, touch, taste, and smell**. Understanding these interactions helps us build charcuterie boards that are not only delicious but also engaging and memorable.

The Five Senses in Eating

Sight

- **Visual appeal** is the first impression—color, shape, and arrangement influence appetite and expectations.
- Bright, contrasting colors (e.g., red peppers, green herbs, golden cheeses) stimulate interest.
- Symmetry and spacing affect perceived quality and care.

Sound

- Crunchy textures (e.g., nuts, crackers) add auditory satisfaction.
- Sound contributes to freshness perception—think of the snap of a crisp pickle or the crunch of a toasted crostino.

Touch

- Texture affects mouthfeel: creamy cheeses, firm meats, crisp fruits.
- Temperature also plays a role—room-temperature cheeses release more aroma and flavor than cold ones.

Smell

- Aroma is critical to flavor perception—up to 80% of what we "taste" is actually smell.
- Smoked meats and seafood, aged cheeses, and fermented items offer complex aromatic profiles.

Taste

- Taste buds detect **five basic tastes**:
  - **Sweet** – sugars, fruits, honey
  - **Sour** – citrus, pickles, yogurt
  - **Salty** – cured meats, cheeses, olives
  - **Bitter** – dark greens, radishes, some cheeses
  - **Umami** – smoked seafood, aged cheese, mushrooms
  - Other identified tastes:
    - **Calciumy** – bitter notes in green vegetables
    - **Fat taste** – creamy, rich mouthfeel (e.g., brie, smoked salmon)

Flavor Interactions & Pairing Principles

Analytical Nature of Taste

- Taste combinations don't create new flavors but **enhance or suppress** existing ones.
- Example:
  - **Sweet + sour** = bright, balanced contrast, but still taste sweet and sour
  - **Sour + salty** = less sour, perceived as sweeter

Synthetic Nature of Vision

- Combining blue and yellow make a new color.
- Example:
  - **Blue + yellow = green**

Pairing Strategies

- **Complementary Pairing**: Match similar flavor profiles (e.g., smoked salmon + creamy cheese).
- **Contrasting Pairing**: Balance opposites (e.g., salty prosciutto + sweet fig jam).
- **Texture Contrast**: Combine creamy, crunchy, chewy, and crisp elements for variety.
- **Temperature Awareness**: Serve cheeses and meats at room temperature for optimal flavor release.

Why This Matters for Charcuterie Boards

- A well-designed board engages all senses, making the experience more enjoyable and memorable.
- Sensory science helps you:

- Choose ingredients that work together.
- Create visual harmony.
- Enhance flavor through thoughtful combinations.

Charcuterie Board Building Tips

Ingredient Selection

- **Meats**: Choose 2–3 with varied textures and spice levels (e.g., prosciutto, salami, smoked seafood).
- **Cheeses**: Select 2–3 types with different milk sources and textures.
- **Seafood**: Feature Louisiana favorites like smoked fish or shrimp.
- **Additions**: Include honey, yogurt-based dip (from LSU Dairy Store), a variety of chocolates, dried fruits, pickles, roasted peppers, nuts, fruits, and crackers.

Serving Tips

- Let meats and cheeses sit at **room temperature for 30 minutes** before serving.
- Slice cheeses **just before serving** to preserve texture and aroma.

Food Safety Essentials

- Wash fresh produce and herbs before adding them to your board.
- Keep seafood and perishable (meats, soft cheese, fruits and vegetables, dips, etc.) items **chilled until serving**. Perishable foods should be tossed after two hours (one hour if the temperature is above 90 °F).
- Consider keeping perishable food items small and replenishing them throughout the event.
- Avoid **cross-contamination** by using separate utensils and boards.
- Follow **temperature control guidelines** for safe storage and transport.
- Place toothpicks and tongs on your board to encourage people not to use their fingers.
- Use small containers to keep dips and liquids from leaking.

Source:

1. *A Brief History of Charcuterie: From Ancient Times to Modern Trends.* https://cookingschoolguide.com/
2. *Charcuterie Boards and Food Safety. The University of Nebraska-Lincoln.* https://food.unl.edu/article/charcuterie-boards-and-food-safety/.
3. *Extension for Real Life: Charcuterie Food Safety. MS State Extension.* https://extension.msstate.edu/blogs/extension-for-real-life/charcuterie-food-safety.
4. *The Ancient Art of Charcuterie: What is it and where did it come from?* https://mizenplace.com/
5. *The Art of Charcuterie: Uncovering the Curing Process Behind the Meats.* https://kitchenjournal.net/
6. *The Science of Charcuterie Meats.* https://enewsletters.k-state.edu/
7. *"The Science of Yum" LSU's Science Café by Prinyawiwatkul, W. 2018.*
8. *Unraveling the Origins: Why is it Called Charcuterie?* https://shortfoodblog.com/

December 12 - Holiday Gingerbread Decorating

Join us at the LSU AgCenter Test Kitchen! Explore delicious recipes and discover the science behind the art of cooking.

When: Friday evenings from 5:00 pm to 8:30 pm

Dates:

- February 28 - King Cake
- April 25 – Chips and Salsa
- June 27- Ice Cream Cake
- August 22 – Toaster Pastries
- October 17 - Charcuterie Board
- **December 12 - Holiday Gingerbread Decorating**

Cost: Varies by event

Location: LSU AgCenter Test Kitchen, 39 Forestry Ln., Animal and Food Sciences Laboratories, Baton Rouge, LA.

Scan for updates!

Questions: Ashley Gutierrez to the email address AGutierrez@agcenter.lsu.edu

Authors:
Shannon Coleman, Ashely Gutierrez & Evelyn Watts
School of Nutrition and Food Sciences

For the latest research-based information on just about anything, visit our website:

LSUAgCenter.com