

De Gustibus*

Adventures in Hacking Taste

Sandy Clark (Mouse)

Erin (Edw0rd)

Defcon 09

*De Gustibus Non Est Disputandem

Confessions of a Foodie

- Hackers in Norway (the motivation for this talk)

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- The child is the maker of the Mouse

Confessions of a Foodie

- Hackers in Norway (the Motivation for this talk)
- The child is the maker of the Mouse
- What you may expect today.
 - The Science
 - The Experiments

The Science:

- This is your brain on taste
- Tastes Like Chicken
- Commercially Prepared foods DOS your brain.
- You are what you eat, literally!

The Experiments:

- How to taste Chocolate
- Chocolate & Wine
- Why the fuss over a Vinegar?
- Miracle Fruit



Banyuls

What the Experts say:

Banyuls is a grenache-based fortified wine that has been made since the thirteenth century. It was then that a physician and alchemist named Arnaud de Villeneuve discovered the method of mutage, when he figured out that the fermentation of wine could be halted by adding pure grape spirit to it, thereby leaving it sweet. Banyuls is allowed to ferment until it has about six percent alcohol, then spirit is added, raising the alcohol level to about fifteen percent. ...a sweet wine that is a classic companion to semi-sweet or dark chocolate. While rich and full-bodied, it is less sweet and syrupy than a typical dessert wine. It possesses a lovely garnet color and a good balanced acidity that makes it come off as more delicate than vintage port.

What I say: Meh! ---

That is, until you pair it with Chocolate...

How to taste Chocolate

- Use your Eyes
- Touch it
- Use your Ears
- Smell It
- Now Put it on your tongue - It must melt, to be tasted.

The steps to tasting anything (especially chocolate):

- 1. Put a tiny piece in your mouth, allow it to melt
- 2. Concentrate on mouth feel and change of flavors over time
- 3. Look for flavor notes: Do they change, are they combined or separate, how intense are they?
- 4. Do you feel bitterness, acid, astringency? Mild or harsh?
- 5. See if you recognize all 3 tasting phases :
 - A. What you feel at first
 - B. What you feel as it melts
 - C. “The end of the mouth” -- what you feel as you swallow.
- 6. How do you rate it out of 10?

When is a vinegar not a vinegar?

- Balsamic vinegar is a thick, sweet vinegar made from the pure and unfermented juice of grape called the "must."
- native to Modena, Italy
- True, gourmet balsamic vinegar is slowly aged in wooden barrels.
- The process of making balsamic vinegar begins by boiling the grape juice until it becomes a thick syrup. It is then transferred to the wooden barrels to start the aging process.
- This can take from 6 months to several years.
- The balsamic vinegars sold in your average grocery store are probably only aged for a few months in stainless steel tanks

Miracle Fruit



- The science:
 - Large glycoprotein chain called Miraculin. was so large it was hard to find.
 - Miraculin binds to the taste buds and is activated by acidic/bitter foods, releasing sugars onto your taste buds.
 - Sour becomes sweet.
- The Experiments:
 - Dissolve on your tongue coat the whole thing!
 - Taste stuff.
 - Effects last for ~60min.

Ready to Experiment?

- For best effect try them in this order:
 - Banyuls & Venezuelan Chocolate -first taste the wine, then allow the chocolate to melt on the tongue, then taste the wine again.
 - Identify the 5 Michel Cluizel Plantations
 - Taste the balsamic vinegar
 - Miracle fruit - (allow it to dissolve and coat the tongue) now try *anything* from the samples.