Lesson 2  
*Cuisine: The Art of Self Transformation*

[Bring Annemarie Colbin’s cookbook, computer for music]

Attending: Meira, Shulamit, Arlene

Whether we’re blanching or blending, soaking or smoking, the purpose is transformation of food into nourishment. We’ll explore the dynamics of food preparation that transfigures ourselves and those we love. This class includes a hands-on workshop of flavor and texture synthesis according to the five tastes.

**Last Week’s Assignment:** Compute $9\times Ki$ for family and friends

**The Significance of the 5 Transformations in Cooking and Health:**

Eating the 5 Transformations way is healthy, fun, nutritious and delicious! When we understand the Five Element theory, this can help us to diagnose illness and find curative foods that will help to nourish and heal the body.

1. Each of these tastes is found on the tongue, so if each is found in the meal, the meal will be satisfying. (For example: Rice with Dulse sprinkle, Fish with Ginger, Winter Squash, Kale, Sauerkraut).

2. Each of these tastes influences a different organ system in the body so foods from each category need to be eaten every day to nourish all of the organs.

3. If a certain organ needs support, you can make extra sure you eat the healthy foods in that category.

4. There are supportive and unsupportive foods for each category:

5. Unsupportive foods in each category:
   - Fire - cigarettes
   - Soil - white sugar
   - Metal - baked white flour products
   - Water - iodized salt
   - Tree - alcohol

   For example, if someone is having a problem with constipation (Metal - Large Intestine) they would want to stay away from baked white flour products. If someone wants to quite smoking (Fire) if they eat more bitter leafy greens it’ll probably help. If someone is having problems with their blood sugar balance- insulin and the pancreas, (Soil), they should avoid refined sugars.

When classifying foods you can consider:

- Flavor
- Direction of growth
- Energetic nature/effect
- Season it is harvested
- Color
- Food processing/preparation
Every Transformation has an element that "creates" it, an element that "controls" it and one that strengthens it. In this way balance and harmony are maintained.

**FIRE**

- **Organs:** Heart/Small Intestine
- **Season/Color:** Red/Summer
- **Energy direction:** Outward
- **Cooking Method:** Stir fry, Dry Roasting

Chinese people believe consuming “red color food” is good for your heart, small intestine and brain.

**Taste:** Bitter Foods: Bitter greens, (Kale, Collards), toasted seeds; Also carrot, tomato, sweet potato, strawberry, chili, red beans, red pepper, jujube, goji berry, dragon fruit, apple, gomashio, tekka, parsley, wakame powder, dandelion, or walnuts.
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These foods can reduce heat and dry fluids. They most benefit slow, overweight, overheated and aggressive people.

**SOIL/ Earth**
- Taste: Sweet
- Organs: Stomach/Spleen, Pancreas
- Season/Color: Early Autumn/Orange/Yellow
- Energy direction: Downward
- Cooking Method: Boiling

If you consume “yellow color food” it’s good for your digestive system and spleen.

*Sweet* Foods: Winter pumpkin/Squash, Sweeteners; Also miso, applesauce, barley malt, brown rice syrup, mirin, raisins, sweet corn, yellow sweet potato, taro, oats, yellow pepper, soy beans, egg yolk, bean curd, ginger, orange, star fruit, lemon, pineapple, papaya, peanut, walnut, honey.

These foods slow down acute symptoms and neutralize toxins. They most benefit dry, nervous and weak people and they calm aggression.

Sweet flavor is dominant:
- In the palate
- In whole natural foods
- When food is chewed until it breaks down it becomes sweet
- Sweet as central/balanced season

**METAL**
- Taste: Sharp or Pungent
- Organs: Lungs/Large Intestine
- Season/Color: Late Autumn/White
- Energy Direction: Inward
- Cooking Method: Pressure Cooking/Baking

If you consume “white color food” it’s good for your lungs, large intestine, nose/respiratory system and skin.

*Pungent* Foods: Ginger, Garlic, Mustard, raw Onion; Also scallions, watercress, onions, chives, mustard, or horseradish. rice, glutinous rice/sticky rice, lotus seed, daikon, bitter melon, winter melon, broccoli, bamboo shoots, tofu, soy milk, Asian pear, banana, almond, white sesame.

These foods have a dispersing effect and promote energy circulation. They most benefit sluggish, damp, lethargic and cold people.

**WATER**
- Taste: Salty
- Organs: Kidneys/Bladder/Sexual
- Season/Color: Winter/Blue, Black, Deep Purple
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Energy Direction: Floating
Cooking Method: Pickling
“Black color food” is good for your kidneys, bones, ears and reproductive organs.

Salty Foods: Sea Vegetables & Beans; gomashio, shio kombu, umeboshi, miso, shoyu, seaweed, shiitake, raisins, blackberry, black grapes, black sesame, black vinegar.

These foods have a softening effect and promote moisture and calming of the body. They most benefit thin, dry and nervous people.

TREE
Taste: Sour
Organs: Liver/Gallbladder
Season/Color: Spring/Green
Energy direction: Upward
Cooking Method: Steaming

If you consuming “green color food” it’s good for your liver, gallbladder, eyes, muscles and joints.

Sour Foods: Sprouts, Lemons, Sauerkraut, Vinegars; Also, pickles, brown rice vinegar, umeboshi, shiso, lemon or lime rinds. mung bean, Chinese leeks and all the green vegetables and green fruits and wasabi.

These foods can obstruct movement and function as astringents. They most benefit changeable, erratic and scattered people.

Foods are always a combination of flavors. For example:
- Berries are both tart (tree) and sweet (soil)
- Scallions and pungent (metal) with upward growth (tree).
- Raw onion is the metal element because of its pungency, whereas cooked onion is very sweet and becomes earthy. Cooking methods change energy.

Not surprisingly different people classify the same food in varying categories.

Foods may change at different states of growth such as unripe versus ripe. For example, tomatoes when green are quite sour and therefore belong more to the Tree Element, and when they are ripe, belong to the Fire Element. When they are very sweet, they become Earthy.

It is also important to eat according to the seasons: Winter is the Water Element, Spring is the Tree Element, Fire is Early Summer, Earth is Late Summer, Metal is Fall.

It is best to buy locally grown or locally raised food or grow it yourself as this helps connect you to the place you live.

The more variety, the happier your Stomach will be as the Earth Element is fed by the Fire Element, which is variety.
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The more colorful the dish or meal, the more of the five elements are involved. The style of cooking also influences the five elements:

Water Soups, Boiling, Steaming, Poaching, Curing, Freezing and Sous-vide cooking (French for "under vacuum"), a method of cooking in which food is sealed in airtight plastic bags then placed in a water bath or in a temperature-controlled steam bath.
environment for longer than normal cooking times—96 hours or more, in some cases—at an accurately regulated temperature much lower)

**Tree**: Grilling, Smoking, Searing, Pickling and Fermenting, Campfire Cooking

**Fire** Deep Frying, Stir Frying, Flambeing, Sautéing, Toasting, Dehydrating, Appetizers and Snacks

**Earth** Baking, Roasting, Stewing, Mashing, Pureeing, Jams and Jellies, Caramelizing, Desserts and Candy

**Metal** Composed Foods, Garnishes, Condiments, Finishing Sauces, Julienne, Mincing, Dicing

**Setup—Salad Bar Workshop**: (p. 243-4)

**Section #5: Pungent**

In small amounts, the pungent taste stimulates digestion, clears the sinuses, promotes sweating and detoxification, dispels gas, aids circulation, improves metabolism, and relieves muscle pain.

- Chili
- Peppers
- Garlic
- Herbs
As you see, the salad bar is divided into sections numbered 1 through 5 (at this point, do not tell the class what these numbers represent). Each section has both dry ingredients and dressings. I want you to each create two salads:

(1) For the first salad, you can use ingredients and dressings from one section only. You can pick whichever section you want, but only use ingredients and dressings from that section.

(2) For your second salad, you can combine ingredients and dressings from as many sections as you wish.

Give the class 10 minutes to make their two salads.

After all class members have created their two salads, have them taste both salads and share them with each other. At this point, they can create more salads, trying out each other’s recipes, etc. This activity can go on for as long as they are enjoying doing it, enjoying the food, etc.

C. The Five Tastes

After everyone has finished enjoying and discussing their creations, reassemble to discuss what this “experiment” has shown us.

Ask the class:

Which of your two salads was more successful?

You don’t have to be a professional chef to know when a dish is successful or not. When something tastes fantastic, it literally sings in our mouths. And when something doesn’t taste quite right, we know that too—even if we can’t always put our finger on what the problem is or how we can fix it.

For most (or all) of us, the first attempt was the most challenging. Although each section contained foods that we like, it was very difficult to create a tasty salad using only one section. The second attempt—when we were allowed to use ingredients from more than one section—produced better results. Why was this the case?

Let’s use the examples produced by our workshop to gain a better understanding of the art of food preparation.
Cooking is like painting or writing a song. Just as there are only so many notes or colors, there are only so many flavors—it’s how you combine them that sets you apart.

A food’s flavor is a combination of three major elements: (1) taste, (2) texture, and (3) aroma. Texture is the sensation created in the mouth by the consistency of a particular food. (Example: mango and honey are both sweet, but they have different textures.) Aroma refers to the odors that enter the nose through the nostrils or that float up through the back of the throat into the nasal cavity. Taste, which is detected specifically by the taste buds that are located on the tongue and in other places inside the mouth, is the most complicated of these three elements. It is also the one most familiar and relevant. So we will spend more time discussing it than the others.

Traditionally, Western cooks and chefs have recognized four distinct tastes: bitter, sweet, sour, and salty. Eastern cooks (primarily in Japan) have identified a fifth element that is becoming more popular among Western cooks: umami. Umami is sometimes referred to as “savory,” but that’s not exactly an accurate translation. In fact, there really isn’t an accurate translation for umami from Japanese to English, which is why we use the Japanese term. Umami basically refers to a dish’s “meatiness.” Other than actual meat, foods that contain the umami taste are things like mushrooms, beefsteak tomatoes, and cheese.

If you taste a dish and think, “it’s missing something,” it’s usually because it’s heavy in one taste and lacking in another. Chocolate, one of the most loved foods on the planet, has an extremely bitter taste; but when that bitterness is balanced with even a small amount of sweetener, it is a gourmet delight. The reverse is also true: sweet dishes usually also contain an element of sour (like citrus), bitter, or even salt. For example, a citrus sauce (like a margarita or passion-fruit sauce) goes well with a sweet bread pudding. A sauce that’s salty could use some acidity (like red wine vinegar) to create depth.

In the same way that it is difficult to create a beautiful painting using only one color, or to create a beautiful piece of music using only one note, creating a tasty dish requires blending two or more flavors. Well-balanced dishes usually have at least three of the five primary flavors. Some include all five.
While taste is the most important element of flavor, it’s not the only one. Texture and aroma also contribute to the ultimate success of a dish. An unappealing texture or aroma can make food unpleasant to eat, no matter how incredible the taste is. A plate full of foods of the same texture (even when there is a variety of tastes) is not nearly as enjoyable to eat as those with varied textures. That’s why many macaroni-and-cheese recipes call for a breadcrumb crust. Even French fries taste better when they’re soft on the inside and crispy on the outside. Black coffee has a very bitter taste, but its very appealing aroma makes it palatable to many people, even without the addition of sweetener or cream to offset the bitterness.

By now you all probably realize what we did with our salad bar. The five sections each contained foods of approximately the same taste. Section #1 had bitter foods; #2—sweet; #3—sour, #4—salty, and #5—umami. I don’t think anyone tried to make a salad only from #4—it would have been practically inedible. On the other hand, when we were allowed to use more than one section, almost everyone took something from the salty section. Even a small amount from the “salty” group added much to the flavor and texture of our creations.

Section #5 (umami) contained many delicious ingredients. Still, a salad created only from this section is not very tasty. It needed to be counterbalanced by other tastes and textures.

Sometimes, when two flavors don’t work well together, the introduction of a third flavor makes an otherwise mediocre food delicious:

Paul Breslin of Rutgers University, who is pretty much the don when it comes to tasting science, gives the example of a grapefruit. [In a grapefruit,] the sweet and bitter notes suppress each other. “When I add salt to it,” he says, “I then suppress some of the negative notes, like the bitter taste.” By knocking the bitter down, the sweetness—“or other pleasant tastes, such as savory,” he adds—are released from their bitter shackles. So not only is the bitterness turned down, but the sweetness is turned up.
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• Spices
• Raw onions
• Cayenne
• Black Pepper

One of its main features is that it classifies dishes according to the Chinese Theory of the Five Phases. We’ve been using this concept at the school since 1983; I find consistently, and without exception, that balancing meals according to this theory is, if not exactly the simplest, without a doubt the most effective way to make sure the meal leaves the diner with a feeling of well-being.

• Ginger

Salad Bar Workshop: Combining Flavors and Textures (p. 253-6)

To better understand the connection between the art of food preparation and art of self transformation, we will conduct a salad bar workshop. In addition to enjoying the delicious salads we will create and to practice mindful eating, we are going to conduct an experiment.

Background Music: YouTube

Even a very small amount of salt added to a dish—so small that one does not taste any saltiness at all—will enhance the other flavors and completely transform the dish from blah to delicious.

Annemarie Colbin’s cookbook according to the Five Transformations:
Assignment: Cook a dish at home and report (see separate attachments)