

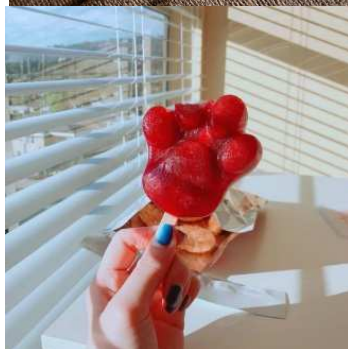


Hand to Mouth:
Questioning
Consumerism

recipes, histories,
and investigations

By
CCA Jewelry and Metal
Arts Students

Personal Cultural Social
Environmental



Student Work
from
Hand to Mouth:
Questioning Consumerism

recipes, histories, and investigations

Personal Cultural Social Environmental

CCA Jewelry & Metal Arts
Spring 2021

About this Publication

This publication was compiled in the spring of 2021 for the CCA, Fine Arts, Jewelry & Metal Arts Program, Specialty Course, "Hand to Mouth: Questioning Consumerism". In this course we traveled the world virtually investigating cultures through jewelry, culinary arts, and environmental impacts of the materials in our eco systems.

This course was designed because the 2020-21 academic year was forced to be fully online because of the Covid 19 Pandemic.

As of May of 2021, the worldwide reported cases of Covid 19 are 167,340,940. There have been 3,472,618 deaths. Vaccinations are underway, cases and deaths are reducing greatly, and restrictions in the USA are beginning to be lifted.

CCA JMA Special Techniques course ordinarily focuses on metalsmithing skills. Because these courses were particularly challenging for remote learning, I developed a class that could only work with remote components.

Formerly courses have been: Color on Metal taught by Deborah Lozier, Production taught by David Cole, Casting taught by Jo-Ann Donivan, and Holloware taught by Curtis H. Arima (me). Marilyn da Silva and I Co-chair the program with, and Russel Larman is the studio manager.

Some of the explorations in this course led us to discover the history of food waste in the US, a brief history of the many cultures of Indigenous people of what we now call the San Francisco Bay Area, and discussion with guests. Alberto Mellado Moreno of the Comcáac Nation spoke to the class about the preservation of his culture through environmental sustainability, and Laxmi Kant Soni from Binkaner, India demonstrated his traditional enamel and engraving.

One of the projects was this publication. Each student found a family recipe. They researched and recorded some family and personal accounts related to the recipes, then researched the history of the recipe and/or the environmental or social impact of one or more of the ingredients. This publication is the compilation of that information.

The recipes allow each student to share their culture and personal experiences, the research allows the reader to understand more about the history of these dishes, and the environmental or social inquiries allow us to question our consumer habits.

Thank you to the E-school collaborative for their support in this course and progress towards environmental justice.

I want to thank the students for their dedication and willingness to participate and learn during such challenging times.

My apologies for typos and incorrect citations. I think of this as a rough draft.

Curtis Hidemasa Nickerson Arima

This publication is funded by an endowment gift to support The Deborah and Kenneth Novack Creative Citizens Series at CCA, an annual series of public programs focused on creative activism.

Compiled by Curtis Hidemasa Nickerson Arima

Contributing Students

Angela Lafko

Chuyue (Olivia) Wang

Jinghang (Beverly) Liu

Kirra Hellfritsch

Meztli Mercado

Michell Shim

Phaedra Freeman

Sizhe (Sylvie) Luo

Tailai Liao

Weixnin (Ursula) Huang

Xi (Alex) Ao

Yuchen (Cloris) Ding

Yumeng Wu

Yuxuan (Sussie) Zhang

Lions Head 獅子頭

Angela Lafko

Family History

My great-grandma from my fathers side of my family had used this recipe for decades. She is from China and had to raise four children by herself. Her husband was a general during the war who was always away. She cooked and cleaned and provided for her children during those difficult times. It wasn't until the war had become severe that she escaped and entered Taiwan with her four children. When I was born we would visit my great grandmother at her LA house, and she would always cook for us. The staple dish was always the lion's head, and it was very good.

Later, my great grandmother taught my mom the recipe. Now, with her aging, she cannot cook anymore. She just turned 95, and does not remember how to cook. It makes my heart break that she is slowly forgetting a lot of things, but by passing on the recipe to the next generation keeps her legacy. When I learn this recipe I will definitely teach it to my kids one day and share the same stories about my great grandmother.

Recipe History

Lions head is a traditional Chinese dish, also known as stewed meatballs. This dish is from Huaiyang cuisine of eastern China. The dish first appeared around the Qing dynasty, which is a recipe extracted from the Xu Ke's Qing bai lei chao 清稗類鈔

It consists of pork meatballs with stewed vegetables. There are two ways to cook this dish: with soy sauce for a saltier taste, or a plain white broth, which is more light but rich in flavor. The name "lion head" is because the meatballs resemble the head of the guardian lion in Chinese folklore.



Recipe

Lion's head, is a pork meatball, its shape just as its name implies.

The proportion of fat to lean pork is fifty-fifty, chop up them, then mix them with egg whites so that the mixture can coagulate easily.

The shrimp meat or crab powder is an optional ingredient to mix.

Put napa cabbage or bamboo shoots on the bottom of a clay pot, pour a little water and dissolve the salt in it.

Make the meatballs as big as possible, put them in, then put leaves above the meatballs and put the lid on the pot.

Place the pot in a wok filled with salt water, to avoid cracking in this way, cook over a gentle heat.

Stoke enough firewood at intervals, when the meat is medium, burn the wok fiercely until the meat is well done.

“獅子頭者，以形似而得名，
豬肉圓也。豬肉肥瘦各半，
細切粗斬，乃和以蛋白，
使易凝固，或加蝦仁、蟹粉。以黃沙罐一，
底置黃芽菜或竹筍，略和以水及鹽，
以肉作極大之圓，置其上，上覆菜葉，
以罐蓋蓋之，
乃入鐵鍋，撒鹽少許，
以防鍋裂，
然後以文火乾燒之。
每燒數柴把一停，
約越五分時更燒之，
候熟取出。

The Environmental impacts of pig farming

For my recipe, pork was the main ingredient used. So the environmental effects will be covered on pig farming.

Concentrated animal feeding operations (CAFOs) pose many threats to our environment. CAFOs facilitate swine and other animals in enclosed areas, which causes waste and feces to spread in nearby neighborhoods, causing water and air pollution with other toxic particles. The waste produced by these facilities carry numerous bacteria, pathogens, and heavy metals that can be harmful when ingested. Pigs also contribute to water pollution where they use sprinklers to spray away pig waste into nearby territories. The pollutants sprayed away can cause respiratory ailment, decreased quality of life, mucosal irritation, and high blood pressure. By allowing CAFOs to use this method of disposing waste, it makes it cost efficient. But it also produces injustice problems towards the environment, since communities near these facilities do not benefit from it. The Agriculture and Consumer Health Department has stated that the main reason that impacts the environment is the manure produced by pigs.

CAFOs tend to store swine waste in lagoons. These lagoons are so polluted, they contain pathogens like antimicrobials, antibiotics, salmonella, nitrogen, and phosphorus. This lagoon has the ability to pollute the watershed in CAFO, these lagoons are not treated with mechanical or chemical filtration, leaving it untreated when it goes back into the environment. These spills from lagoons are the contributors to pollution. Toxic waste like ammonia and nitrates can enter the groundwater which can affect the water line humans consume. Approximately 35,000 miles across 20 states has been polluted by manure, pig waste leakage. With

many farms underdeveloped, or lack wastewater treatment systems, this causes more pollution into the environment which contaminates water. Some farmers pollute the lands purposely, stating that the manure sprayed on the land helps fertilize the land. But researchers state that it is a "mass imbalance" which can significantly pollute crops and can spill off to nearby neighborhoods. Many people around the areas complain of the odor caused compared to other farm manure. People have reported faint after being exposed to the odor, and some people's houses were surrounded by 3 foot of fecal matter. This is a common occurrence to people in the community

Communities that live near CAFOs facilities experience negative environmental and health effects due to pig farming. The waste produced by animals in a small space is one of the main issues produced by animal farming. With pig farming, farmers struggle with ways to dispose of waste. CAFOs mostly collect the waste and keep it in lagoons, where the waste can be broken down by bacteria and used as fertilizer. This system of using lagoons and fertilizers is legal in the US.

This waste then travels into towns, which prevents civilians from leaving their homes due to the severe air pollution caused by animal agriculture. Many people have been suffering from health effects such as infections, respiratory diseases, risk of cancer, etc. the waste also produces high levels of nitrogen which contributes to acid rain. Cases studies conducted by Environmental Health Perspectives, have proven that pollutants and malodor concentrations from pig farming can cause increased blood pressure, altered mood, and stress. In a two week experiment, scientists took adult volunteers who live near CAFOs facilities, and requested them to sit outside these facilities twice a day for ten minutes. The volunteers reported that there was odor, and took their blood pressure. The study proves that malodor is associated with rising blood pressure which contributes to chronic hypertension.

With the environmental risks that come with pig farming. Here are some alternatives for pork; turkey bacon, fakon, macon, tofu, and tempeh. Turkey bacon has been proven to be 50% less fattier than pork and has a more authentic taste to it. Fakon is made of soy protein, gluten, and water. A popular and eco friendly alternative for kosher, vegetarian, and vegan consumers. Macon is made of mutton, its appearance resembles pork bacon because of its color and texture. It is reported that macon is popular amongst religious groups that do not consume pork. Tofu is made of soybeans, and absorbs very well. Therefore, it is easy to mimic the taste. Tempeh is fermented bean and soybean, and its appearance is darker. It also has a firm texture and can be cooked in many ways.

Candied Sweet Potato

Chuyue (Olivia) Wang

Family History

Mother: "My father was a close friend with well-known chef, Guodong Liu who was famous for cooking Liaoning cuisine. They always studied recipes together, Candied Sweet Potato was a dish that my father learn from him. In the 1960s, due to the limited resources as well as natural disasters, many people in China suffered from great hunger. During this difficult time, my parents planted some easily-growing veggies in the yard such as sweet potatoes to feed the kids. We did have enough to eat, however we were so tired from having roasted sweet potatoes for every meal.

There was one day my brothers and sisters protested again for eating the same thing everyday, my father went to the kitchen using the only sugar and oil we had to make the dish- Candied Sweet Potato. It looked so delicious and finally it drew everyone's attention. The kids had never seen anything like this. When you drag the sweet potato up high, there is candy silk stuck to it; when you put it in the cold water, the soft sugar coating suddenly becomes crispy. We had such a wonderful meal that day, the dinner table was full of laughter." (Zhang)

There was one day my brothers and sisters protested again for eating the same thing everyday, my father went to the kitchen using the only sugar and oil we had to make the dish- Candied Sweet Potato. It looked so delicious and finally it drew everyone's attention. The kids had never seen anything like this. When you drag the sweet potato up high, there is candy silk stuck to it; when you put it in the cold water, the soft sugar coating suddenly becomes crispy. We had such a wonderful meal that day, the dinner table was full of laughter." (Zhang)



Recipe

This is a family recipe that passed from my grandpa to my mother, then to my generation. It is crispy, sweet and really fun to eat! Candied Sweet Potato is a quite difficult dish in Chinese cuisine, it is commonly used for testing a chef if he or she is qualified. However, this recipe is proved to guarantee complete success. The trick is to cook the sugar perfectly. The finished dish should have crispy sugar coating as well as "sugar silk" when you pull the sweet potato up.

Ingredients:

1 Sweet Potato
75 g White Sugar
250 g Vegetable Oil

1. Peel the sweet potato and roll-cut it into pieces with a slant angle.
2. Heat the pan, then pour into the oil.
3. When the oil reaches 150 °C (there is light smoke), fry the sweet potato until tender. After that, remove it from pan into a plate.
4. Fry the sweet potato again until golden brown,

remove from pan and drain the oil.

5. Heat another pan with just a small amount of oil, then turn to low heat, add in the sugar.

6. Slowly cook the sugar until it turns into light brown color. Test the sugar with a chopstick, dip the chopstick into sugar then raise it up high, if there is a thread of sugar which looks like silk, then the sugar is ready

7. Pour the sweet potato into the sugar mixture, quickly toss to coat well, then serve in a plate.

8. Prepare a bowl of cold water, dip the hot sweet potato into the water, it is time to eat! Yummy.

原料:

1个地瓜

75克白砂糖

250克植物油

步骤:

1. 地瓜削皮, 切成滚刀块备用。
2. 锅烧热放植物油。
3. 当锅内的油达到150度(轻微冒烟)时, 炸地瓜块至变色, 取出放在盘子里备用。
4. 复炸地瓜至颜色金黄, 取出沥干油。
5. 取少量油放入另一个锅内, 烧热, 然后转小火加糖。
6. 熬糖至浅棕色, 用一根筷子蘸糖, 如果拔丝, 糖就熬好了。
7. 倒入地瓜块, 快速翻炒裹糖, 最后倒入盘中摆盘。
8. 准备一碗凉水, 将地瓜块蘸入凉水中再食用。

Recipe History

Candied Sweet Potato is a dish originated from Shandong province which is very famous for its candied dish. In the 1920s, people from Shandong emigrated to the Northeast part of China and brought their typical cuisine with them. Shandong cuisine (Lu Food) fused with the local dish and gradually transformed into Liaoning food nowadays. Candied Sweet potato becomes the signature dish in Liaoning Food (zouqianting_gz).

Candied Sweet Potato is a traditional dessert for the Han nationality. It originated in the north part of China. With the spreading of overseas Chinese, they passed the recipe to Japan and Korea. In Japan, there is frozen candied sweet potato; in Korea, it is very common to see this dish as street food which adds sesame seeds while it is still hot (第一星座网).

Works Cited

Zhang, Jing. *Personal Interview*. 9 March 2021.

zouqianting_gz, wuzhiping_gz. 东北拔丝地瓜的历史 拔丝地瓜的做法是什么?_太平洋时尚网 知识库, g.pclady.com.cn/wiki/g9z96132.html.

“拔丝地瓜的来历与典故.” 第一星座网,
www.dlxz.net/wenhua/yinshi/art99643.aspx.

Environmental/ Social Impact

Sweet Potato

Sweet potato has been widely cultivated around the world due to its low labor needs, low cost and lower risk than other crops. It is often grown as a secondary crop on marginal lands. Research on marginal agricultural land use generally indicates that crop cultivation on the extensive margin will lead to erosion, desertification and land degradation (Anderson et al. 4). Compared to other crops, sweet potato production is relatively sustainable. Based on USA market data, sweet potatoes have a comparatively low carbon footprint and a low water footprint. 0.43 kg CO₂e and 383 liters of water are used to produce 1 kilogram sweet potatoes. There is no obvious damage to air, land, water, soil, forests, etc. as long as no toxic chemical pesticides are used during the cultivation (Marie).

White Sugar

White sugar usually comes from sugarcane. As a thirsty crop, the cultivation of sugarcane produces environmental impacts through the loss of natural habitats, large use of water, massive use of agro-chemicals, discharge and runoff of wastewater pollution.

These are the reasons that cause the degradation of wildlife and water and soil from the place sugar is produced. A particular concern is influences related to irrigation of sugarcane and pollution runoff (WWF). Sugarcane is planted as a mono culture crop which means without the interruption of other crops or plants. A single type of plant occupies large swaths of land. Massive machinery and agrochemicals are used to grow large areas of a single crop, which leads to clear more land for farming. Natural habitats such as rainforests are destroyed to grow sugar cane. In addition, mono crops are lack of biodiversity which makes them more vulnerable to insects, weeds and diseases. It causes the massive applying of pesticides for farmers to kill insects that are harmful to sugar cane. Pesticides are not good for farmers' health, their families and people who get close to the areas where pesticides are used. The essential microorganisms and potassium are eaten up by sugar cane, so fertilizers such as nitrogen and phosphorus are necessary for growing each new crop (Poppenheimer). Though sugar beets share some of the similarities with sugar cane, compared to white sugar from sugarcane, sugar from sugar beets is relatively sustainable because it does not require burning before harvest (Folta).

Speaking of the social impact, the agricultural industry is considered to be one of the most dangerous industries. Farmers are exposed to harmful, toxic chemicals and pesticides. Machinery may be unsafe and they may not have access to clean drinking water. In spite of that, farmers earn meager wages. Many cases of underpaid agricultural workers, wage theft and no overtime payment or benefits are not rare to see (Marie).

Works Cited

Anderson, Leigh, et al. *Agriculture & the Environment: Yam & Sweet POTATO SYSTEMS*. 15 Oct. 2013, epar.evans.uw.edu/research/agriculture-environment-yam-sweet-potato-systems.

Folta, Kevin. "What's the Most Sustainable, Affordable and Nutritious Sugar: Boutique Imported Unrefined Whole Cane v. Domestic Sugar Cane v. Sugar Beet?" *Genetic Literacy Project*, 24 July 2019, geneticliteracyproject.org/2019/07/16/sustainable-and-nutritious-unrefined-whole-cane-sugar-skip-the-latest-organic-scam-and-eat-sucrose-from-gmo-sugar-beets/.

Marie, Adriane. "Sweet Potatoes: 2021 Ingredient Guide for Health, Environment, Animals, Laborers." *HEALabel*, HEALabel, 14 Mar. 2021, healabel.com/s-ingredients/sweet-potatoes.

Poppenheimer, Author Linda. "Environmental Impact of Sugar: Green Groundswell." *Green Groundswell | Home of the Unlikely Environmentalist*, 30 July 2019, greengroundswell.com/environmental-impact-of-sugar/2019/07/22/.

"Sugar and the Environment - Encouraging Better Management Practices in Sugar Production and Pro." *WWF*, wwf.panda.org/?22255%2FSugar-and-the-Environment-Encouraging-Better-Management-Practices-in-Sugar-Production-and-Processing.



Scrambled Eggs with Tomatoes

Jinghang (Beverly) Lui

Family History

Just a whiff of this recipe cooking and folks will tell tales of sitting in or near the kitchen as a kid as a parent made this dish - and how good it tasted!

It is simple, elegant, and savory, and less than 10 - 15 minutes from wok to table. Chopped green onions are almost always used. Sometimes garlic or onion is added, and often there is a blast of shaoxing, rice vinegar, or even oyster sauce to add flavor. Some recipes also add sugar to counter the acidity of the tomatoes, but the memorable taste of the dish usually just comes from the combined flavors of the fresh ingredients. (Laura)

Scrambled eggs with tomatoes was the first dish I learned. My dad and I reminisced about the first time he taught me. It was a summer vacation in junior high school when I was at home alone. The first lesson was such a failure that my dad made me watch him do it once more, and then did it again myself. My father also hand wrote me a recipe, seemingly very simple, but when I did, there were many problems about the amount of each ingredient, such as "add the right amount of oil", "add a little salt". Because I can't estimate the amount of these seasonings, when I made the tomato scrambled egg, it tasted and looked very bad. My dad taught me again, and he just labeled the amount of each ingredient, like "half a teaspoon of salt."

Now, I have been able to cook this dish skillfully, but the interesting thing is that everyone cooks this dish differently, and even now, when my mother watches me cook this dish, she is still alongside me constantly pointing out my tiny mistakes.

Works Citation

"Stir-Fried Tomato and Scrambled Eggs." *Wikipedia*, Wikimedia Foundation, 10 Mar. 2021, en.wikipedia.org/wiki/Stir-fried_tomato_and_scrambled_eggs.

Laura, Kelley. *Silk Road Gourmet*, 5 Sept. 2018, silkroadgourmet.com/tomato-eggs



Recipe

番茄炒蛋食谱：

1. 准备食材：两个鸡蛋，两个西红柿，糖，盐，油，葱
 - a) 打鸡蛋，放入少许盐，当鸡蛋表面有大量泡沫才能算鸡蛋打好了。
 - b) 清洗西红柿并给他们削皮，切西红柿，尽量切成橘子瓣大小的块。
2. 炒鸡蛋，加入适当油，等油烧热再把鸡蛋倒入锅内，入锅后要立即用铲子或筷子迅速翻炒，这样鸡蛋才会变成一小块一小块的。炒好以后盛出来先放在一旁。
3. 这个时候锅里面应该还有一些油，把西红柿倒进去，翻炒几下。加点糖可以中和西红柿的酸味。
4. 由于西红柿里面含有大量的水分，会有水份析出，这个时候把炒好的鸡蛋放进去，放入少许盐，翻炒几下，撒上葱花，就可以出锅了。

Scrambled eggs with tomatoes recipe

1. Ingredients: 2 eggs, 2 tomatoes, sugar, salt, oil, scallions

a) Beat the eggs with a little salt. Break up eggs, add a little salt, stir and make them mixed evenly.

b) Wash and remove the stalk from the tomatoes, cut them into pieces.

c) Wash and cut the scallions into small pieces

2. put some oil into the pan, pour the egg mixture after oil heating-up.

3. Later, stir-fry and cut into small pieces by turning. After completion, take it out and wait to return it later.

4. Now we're going to fry the tomatoes. Pour in a little oil and put tomatoes into the pan, cook it. When we see tomatoes getting soft, change it into a small fire, add proper salts and sugars, and continue cooking.

5. Last, mix eggs with tomatoes uniformly, turn off the fire. Add the scallions, finally the delicious dish is finished.

Recipe History

Scrambled eggs have been eaten in China for thousands of years but cooking them with tomatoes is a modern, Western influence. Western restaurants began to appear in China during the late Qing Dynasty and early Republican era which was when Chinese people began to experiment putting tomatoes into their dishes. This was particularly prominent around Shanghai which was the most cosmopolitan Chinese city at the time. In the 1920s and 1930s, stir-fried tomato and scrambled eggs was sold at restaurants. It was around the 1940s that records of the home-cooked style stir-fried tomato and scrambled egg dish emerged. (Wikipedia)

Egg Production: Pollution and Solutions

The world's reliance on eggs can hardly be overstated. To understand this reliance, the global egg production in 2019 was estimated at roughly 82 million tons (Shahbandeh). Such a huge production volume requires an equally large number of birds to ensure sufficient supply. The challenge with the growing over-reliance on eggs has been the move from a more natural system of free-range poultry to keeping birds in enclosed forms. This is responsible for increased water and land toxicity. The egg production industry is also linked to pollution through the use of harmful packaging materials, mostly plastic ones. Essentially, egg production is marked by a high correlation to harmful practices and requires adequate solutions.

The industrial closed range system of poultry keeping involves keeping large flocks of immobile birds in factory-like ranges, feeding them, and simply waiting for eggs. The waste from such systems is often poorly disposed leading to high nitrogen content concentration in surrounding soil and water (Galanakis 85).

The industrial closed range system of poultry keeping involves keeping large flocks of immobile birds in factory-like ranges, feeding them, and simply waiting for eggs. The waste from such systems is often poorly disposed leading to high nitrogen content concentration in surrounding soil and water (Galanakis 85).

Dealing with the negative impacts of commercial egg production requires proactive approaches. The first way to reduce such problems would be to create a better system of poultry farming that involves partial free-ranging farming. In addition, the recycling of water into manure should be more prompt and done using means that prevent improper leaching of nutrients into the soil. Concerning packaging, an encouragement to use biodegradable papier-mâché trays and containers would be an ideal solution. Unfortunately, there is little to do on transportation until electric trucks gain wider use and electric cargo ships become available. The alternative would be lumping poultry farms close to consumers, which would be a zero-sum game.

Works Cited

Galanakis, Charis M., ed. *Environmental Impact of Agro-Food Industry and Food Consumption*. Academic Press, 2020.
Shahbandeh, Melissa. "Production of Eggs Worldwide, 2019." *Statista*, 3 Mar. 2021, www.statista.com/statistics/263972/egg-production-worldwide-since-1990/.

Shepherds Pie

Kirra Hellfritsch

Family History

This recipe is one my mother found in a cookbook and wrote down. It is a traditional Irish dish that my mother would make for my family growing up. It has been a long time since she made it for me but I do remember it from my childhood. Due to the fact that my mother was adopted, and the relationship with her adoptive parents was tumultuous, she did not have any recipes that have been in my family longer than her.

My mother almost always cooked every meal growing up. Being adopted and distant from her adoptive family, she wasn't passed down family recipes, instead she found her own based on biological heritage and financial resilience. We never had much money growing up which is why she loved the versatility of the Irish shepherd's pie. Consisting of a potato crust, and a veggie/meat filling, this adaptable dish became a family icon. My brother refers to the shepherds pie as the building block of meal construction and often remakes it with his own personal variations.

Recipe History

The potato was introduced to Ireland in 1589 where it became a reliable food source for poor families as it was easy to grow. In order to pinch pennies and let nothing go to waste, after a big meal, people would take the meat and vegetable leftovers, cover them with a cheap potato crust and bake it. Traditionally made with lamb, this meal gained the name "Shepards Pie" around the 19th century.



Recipe

(toppings= Grated cheddar cheese/sliced tomatoes Side of Cabbage or Brussels)

Original Recipe -- Mothers changes due to what she had/ could afford

1 Lb fresh ground lamb -- ground beef - ground bison
2-3 Tbsp vegetable oil -- canola oil
1 onion peeled and chopped
2 medium carrots chopped-- half bag of frozen peas
2 ½ C stock -- diced tomatoes or 1 spoon of bullion
1 Tsp dried mixed herbs -- garlic minced, sea salt, pepper, dried parsley
1 Tbsp worcestershire sauce -- no worcestershire
2 Lbs potatoes peeled + halved - red potatoes, not peeled and softly mashed - cauliflower mash (pad of butter, little milk, s+p)

Fry meat in oil until browned, stir well to break up lumps.

Add in onion + carrot.

Saute gently on med/low heat for 5 minutes until softened.

Pour in water, add bouillon + stir in the herbs, peas, s+p.

Bring to a boil, then turn down heat and cook, without a lid, for about 20 minutes, stir occasionally.

Cool and pour into a casserole dish.

Meanwhile, boil potatoes till tender.

Drain off water and mash, get rid of big lumps, stir in butter and milk (soft, not runny).

Add salt + pepper.

Spoon potato over meat and spread with the back of the fork until smooth and even.

Sprinkle cheese on top, decorate with sliced tomato, salt + pepper.

Place in a broiler to melt cheese.

Served with broccoli and a slice of bread n butter.



Arroz con Leche

Meztli Mercado

Family History

My favorite dessert is hands down arroz con leche, but only the way my mother made it. She was Nicaraguan so she used to make it Nicaraguan style, their version is much less sweet than the Mexican style but with all the same elements except condensed milk. There's even a song she used to sing to me titled "Arroz con Leche", it's an old Spanish kids song with a questionable message being sent so my mother used to change the lyrics so they weren't so misogynistic. I never knew the original song until I grew up and I looked up the lyrics and realized they were originally not what I grew up hearing.

My mother used to stick the arroz con leche in the refrigerator right after making it because I refused to eat it hot, this was when I was much younger, although nowadays I still prefer it cold. I remember I would always beg her to make it for me, it was the perfect dessert for all seasons and all celebrations. In the winter you could eat it hot, and in the summer you could eat it cold. My favorite thing about it is that it's not too sweet, it's the perfect combination of sweet and filling.

One time she even made it for my partner with oat milk since he is lactose intolerant. It was a very special moment, it was a way I could not only share my childhood and culture with my partner but also share my mom and our bond with him as well. Arroz con leche is a very special dessert shared by both my cultures and a gift my mom shared with me. Everytime I make it I get to celebrate my mom and her life. I don't know how to cook, but I do know how to make a good arroz con leche, I hope you enjoy it as much as I do.



Recipe

My mom used to always make me rice pudding, in spanish it is called Arroz con Leche. My mom was from Nicaragua so it was quite funny that she would always make me a traditionally Mexican style dessert. I'm not sure where or when she learned how to make it but the recipe is as followed:

1. Get your rice and water in a medium saucepan and make sure to add a piece of cinnamon to the mix (almost all traditional mexican desserts have cinnamon)
 - Bring to a boil then let simmer for like 20 minutes (basically until rice is squishy/soft)
2. While rice is cooking youre going to start on your milk mixture. This is where the magic happens. You're gonna mix whole milk AND condensed milk (in latin america, we LOVE condensed milk)
3. When all the water has evaporated, remove the pot from the heat then pour the whole milk and the condensed milk and stir- In this step you could add raisins if you want or you can just leave as is

4. Now return the pot to heat and wait till it thickens, this will take from 5- 10 minutes - Make sure to stir every so often to avoid it sticking to the bottom

- If the rice is looking to dry at this point feel free to add $\frac{1}{4}$ cup (or however much you feel is necessary) of warm milk and stir

5. Now you can serve it! It should look like soft creamy pudding. Sprinkle some ground cinnamon on top and you're done!

- You can serve rice pudding both hot and cold, either way, make sure to sprinkle your cinnamon on top!

Arroz con Leche lyrics:

Arroz con leche se
quiere casar con una
viudita de la capital,

que sepa tejer,
que sepa bordar,
que ponga la aguja en su campanal.

2. Yo soy la viudita la hija del rey.

Me quiero casar y no sé con quien.
Contigo sí, contigo no,
Contigo mi vida me casaré yo.

Arroz con leche. (2020, April 22). Retrieved May 10, 2021, from <https://www.bethsnotesplus.com/2013/11/arroz-con-leche.html>
The Spanish arroz con leche. (2009, June 09). Retrieved May 10, 2021, from <https://www.unitedplanet.org/blog/2009/06/02/the-spanish-arroz-con-leche>
What is the history of Arroz CON Leche? (n.d.). Retrieved May 9, 2021, from <https://www.reference.com/world-view/history-arroz-con-leche-9cd16b49895fa65>

Environmental Impact

Arroz con leche's signature ingredients, aside from rice, are milk and cinnamon. When we break down these ingredients and look at their effects on the environment we begin the search for alternatives. Many people think that you can't change around the ingredients to a traditional recipe but the world is constantly changing for the better and our recipes should transform along with them. It's important to help save the planet we love in every way we can, even if it's in small ways like finding a milk alternative.

Cinnamon to my surprise is moderately sustainable. This means that although there is room for improvement in the cinnamon harvesting industry it isn't one to raise too much concern. That being said, cinnamon does have a high water footprint since it is a crop and needs constant irrigation to grow, but a low carbon footprint which makes it moderately sustainable.

Milk on the other hand is a very inhumane industry and not sustainable. When you look at it, consuming any type of animal byproduct is bad for the environment. Not only is the dairy industry wasteful it also causes enormous amounts of pollution. This has led to it becoming one of the biggest causes of climate change. Dairy cows and their manure produce greenhouse gas emissions which directly affects climate change. The dairy/ meat industry takes up two thirds of the world agricultural land which has been desertified because of deforestation and overgrazing. The top soil that has been impacted by the cattle's hooves has a huge loss of organic matter that takes decades, even centuries, to replace. Top soil and its organic matter are incredibly important to maintain since they are crucial for plant and crop growth. If well managed, manure could actually benefit the land but because the industry is so wasteful and has too many cattle, it goes to waste and becomes toxic to the earth. Almost anything in excess can be harmful. The manure then releases ammonia into the air which leads to loss of species diversity in the surrounding areas.

Although rice is hard to find an alternative for, as long as we continue to work on making rice more sustainable we can continue using it for this recipe. And as of right now it looks like cinnamon seems to be sustainable enough with room for improvement. The one replaceable factor is the milk. But how can you make arroz con leche without milk? Easy, replace the milk with oat milk and sugar! This way you are using a milk alternative that has been proven to be sustainable and is definitely going to be healthier too. The arroz con leche you make with oat milk will even be vegan!

Because no animal products will be used (rice, cinnamon, sugar and oat milk). You will hardly notice a difference, it tastes the same and you can customize how sweet you want it with this version since the sugar is added on gradually rather than all at once like with the condensed milk.

Citation

Marie, A. (2021, May 06). Cinnamon: 2021 ingredient guide for health, Environment, Animals, Laborers. Retrieved May 10, 2021, from <https://healabel.com/c-ingredients/cinnamon#:~:text=cinnamon%20is%20moderately%20sustainable.&text=Consuming%20animal%20products%20and%20byproducts,biggest%20causes%20of%20climate%20change>.

Dairy. (n.d.). Retrieved May 9, 2021, from <https://www.worldwildlife.org/industries/dairy#:~:text=Dairy%20cows%20and%20their%20manure,prairies%2C%20wetlands%2C%20and%20forests>.

Lilia Itzel de Oliveira Pelaez says:, & Says:, F. (2021, January 11). Milk life? How about milk destruction: The shocking truth about the dairy industry and the environment. Retrieved May 9, 2021, from <https://www.onegreenplanet.org/animalsandnature/the-dairy-industry-and-the->

2020, 7. (n.d.). Dairy industry is unsustainable. Retrieved May 10, 2021, from https://www.veganaustralia.org.au/dairy_industry_unsustainable
Sustainability and Dairy Farming Fact Sheet. (2011, December). Retrieved May 10, 2021, from <https://www.extension.iastate.edu/sites/www.extension.iastate.edu/files/4h/SustainabilityFactSheet.pdf>

Seaweed Soup

Mitchell Shim

Family History

Seaweed soup is one of Korea's most popular traditional food that we consume on our birthday and while giving birth. It is a tradition for any household to eat this dish in Korea as it is a reflection of our ancestral mothers who consumed this food as a source of energy back in the day. However, I mostly enjoy my mother's cooking of it. I just have memories of myself enjoying this food on my birthday and after school, it brings back notable memories whenever I eat my mum's seaweed soup.

Back when I was a child I would often remember eating this food on the occasion of birthdays of family members. When asking my parents why we continue this tradition till this day, they say it is to symbolize that we would live another healthy year when we eat this food. Another interesting piece of information that was given to me by my mother was that one week prior to giving birth my grandmother would sleep next to a bowl of seaweed soup, this was to make sure the birth will go smoothly the following week. My mother told me she also followed a similar method, instead adhering to the more historical aspect of the soup by feeding after giving birth.



Recipe

Recipe Details:

- Beef
- black pepper
- sesame oil
- garlic
- Cooking wine
- Soy sauce
- Salt
- seaweed

1. Before starting with anything please dunk dried seaweed (as much as you want) in a small tub or bowl. Once you have decided the amount add hot water onto the bowl with seaweed until they fully expand.
2. While the seaweed is expanding start cutting beef (a bag) into multiple cubic slices
3. After cutting the beef please add black pepper after and mix well
4. Once that is done, wait for 30 minutes for everything to season in

5. After 30 minutes, get a new pot and spread sesame oil over the pan equally
6. Prepare the chopped beef and seaweed (please take it out of water first)
7. From the same pot, add the ingredients listed: Beef, Seaweed, 1 tsp of garlic, Cooking wine(2 tsp), 2 average bowls of water when the smell is strong of seaweed
8. When boiling add soy sauce, black pepper, and salt into the pot (until the flavor is right for you)
9. Put the lid on, wait 10 minutes.
10. Enjoy!

Recipe History

In Korea's Goryeo Dynasty (918-1392) the native people realized whales would consume seaweed after birth to recover from the procedure. People noticed this phenomenon, and seaweed soup became a prime recipe to be served to women during childbirth in detoxifying the body. The traditional custom for this recipe also connects to the concept of 'birth'. According to Korean mythology, the three goddesses of fertility called 'Samshin Halmoni' would assist in the process of childbirth. In return for dedicating the seaweed soup as an offering, the child that is born through this ritual was granted protection by the 'three goddesses' before the age of 7.

With historical and mythological meanings the soup incorporates the meaning of safety and comfort in the food. Someone who will try this food will definitely feel the warmth and flavor, bringing delight to their taste buds and mood.

Citations

"What You Need To Know About Korean Birthday Seaweed Soup". *THE KREW | MNL*, <https://kccsupportersblog.wordpress.com/2016/08/09/what-you-need-to-know-about-korean-birthday-seaweed-soup/>. Accessed 12 Mar 2021.

(KOCIS), K. (2021). How seaweed soup became Korea's traditional birthday dish : Korea.net : The official website of the Republic of Korea. Retrieved 12 March 2021, from

"Samsin Halmoni". *En.Wikipedia.Org*, 2021, https://en.wikipedia.org/wiki/Samsin_Halmoni. Accessed 12 Mar 2021.

Environmental impact

Environmentally we need constant protection from nature in a way to achieve balance from the vast amount of decomposition planet earth faces. It's easy to accomplish small changes on land by simply picking up trash to clean the environment, however where there is no human activity especially in the sea, the vast majority of pollution is left for marine life to deal with its aftermath.

The majority of marine pollution caused by humans mostly occurs on land which later gets washed out into the sea. Some examples play a huge role in decomposing marine life such as oil spills, carbon dioxide, and most commonly littering. These are only some of the few examples however we should also focus on the impact of these results that occur in the sea. Polluting the sea, it has many health and environmental issues. The overload of toxic chemicals spread into the sea, this allows less oxygen to be active in certain areas where it can be harmful to marine animals. Oxygen aids in the process of getting rid of all the excess debris. A cycle of sea animals consuming toxic waste, later being consumed by predators eventually to transfer to us humans to eat it, which may result in harmful effects in the body.

Harnessing the attributes of seaweed some of these negative effects can transform and create a change in the environment. Seaweed is a fertilizer for the ocean, and it sucks much of the negative impacts of pollution such as carbon, phosphorus, and nitrogen which helps tremendously in decomposing debris. Increasing the amount of seaweed harvested can help the environment immensely. According to Tyler's work from the 'aquaculture alliance' many of the dangers, the ocean faces can be alleviated by an increased amount of seaweed production across the world, this would be much more beneficial to achieve and fast since seaweed does not need much care to develop. The plant tends to release an immense amount of oxygen, which can be useful in reviving areas. Being grown in the sea and being used as great cleansers the plant also can be converted into being a great source of biofuel. According to the United States government research and development of energy technologies, it is estimated that seaweed cultivation could potentially provide 23 billion gallons of gasoline if the necessary numbers reach 500 million red and brown algae plants.

To sum matters up, seaweed is a prime ingredient of positively changing marine life if we took more consideration of harvesting these plants across the ocean. Pollution is rising on land more and more each year it is later transferred to the sea. It is our responsibility as humans to cultivate the earth and revolutionize to help change this negative impact and take action in flourishing our seas again.

Cited sources

"Seaweed Aquaculture". NOAA, 2021,
<https://www.fisheries.noaa.gov/national/aquaculture/seaweed-aquaculture#:~:text=Environmental%20Benefits%20of%20Seaweed%20Crop%20Farms&text=But%20seaweeds%20pull%20more%20of,gobble%20up%20nitrogen%20and%20phosphorus>. Accessed 2 Apr 2021.

"Seaweed Aquaculture: Benefiting The Ocean And The Economy". Global Aquaculture Alliance, 2017,
<https://www.aquaculturealliance.org/blog/seaweed-aquaculture-benefits/>. Accessed 16 Apr 2021.

Blueberry Cottage Cheese Pancakes

Phaedra Freeman

Family History

Blueberry cottage cheese pancakes are a delicious breakfast that has been made in my family for a long time. It is a very simple and easy recipe. The original recipe is for plain cottage cheese pancakes. This recipe comes from *The Vegetarian Epicure*, written by Anna Thomas. This recipe book was published May 12, 1972, and includes 325 tasty vegetarian dishes and meals. Anna Thomas later wrote two more editions, *The Vegetarian Epicure Book 2* and *The New Vegetarian Epicure*. Anna Thomas states, "This is the perfect protein breakfast for the morning sweet tooth." This is an amazing take on pancakes.

My grandmother was the first person in my family to cook this recipe. She told me that she was looking for something to make for breakfast that was high in protein, but still sweet. While looking through the *Vegetarian Epicure*, she found this recipe and happened to have all of the ingredients, including blueberries. She says they were an instant hit and became a family favorite. My aunt, Aida, remembers having big sleepovers with her friends when she was younger. In the morning, my grandmother would cook them all blueberry cottage cheese pancakes. At first, none of her friends found them intriguing, due to the name, but once they all tried the pancakes, they loved them and always wanted more. My mom says, "These are my favorite pancakes and the only pancakes I eat to this day!" She remembers my grandmother making them for breakfast ever since she was little, as do I. My mom and I have close to the same experience. I do not like regular pancakes, but I will always like and eat blueberry cottage cheese pancakes.



Recipe

Recipe: Cottage Cheese Blueberry Pancakes

Serves: 4

Prep Time: h m

Ingredients:

<u>6 eggs, seperated</u>	<u>1/8 tsp cream of tartar</u>
<u>2 cups small-curd cottage cheese</u>	<u>oil or butter for frying</u>
<u>2/3 cup flour</u>	<u>3/4 - 1 cup of blueberries</u>
<u>2 Tbs sugar</u>	<u>powdered sugar</u>
<u>1 tsp salt</u>	
<u>dash of cinnamon</u>	

Instructions:

1. Beat together the egg yolks, cottage cheese, flour, sugar, salt, and a sprinkle of cinnamon
2. In another bowl beat the egg whites with the cream of tartar until they are stiff but not dry. Fold the beaten whites gently into the cheese mixture.
3. Drop the batter by large spoonfuls onto an oiled griddle or skillet. Fry the pancakes until golden brown on both sides and puffy. Serve at once with syrup, and powdered sugar.



Panqueques de requesón de arándanos

Ingredientes

- 6 huevos, separados
- 2 tazas de requesón
- $\frac{2}{3}$ tazas de harina
- 2 cucharadas de azúcar
- 1 cucharilla de sal
- Pizca de canela
- $\frac{1}{8}$ cucharilla cremor tártaro
- aceite de cocina, manteca
- 1 taza de arándanos
- azúcar en polvo

Direcciones

1. Batir juntos las yemas de huevo, requesón, harina, azúcar, sal y una pizca de canela
2. En otro bol, batir las claras de ~~huevos~~ con el cremor tártaro, hasta que estén rígidos pero no secos
3. Deje caer la masa en cucharadas grandes en una sartén aceiteada. Freír los pancakes hasta que estén dorados por los dos lados y hinchados. Servir de inmediato con almíbar y azúcar en polvo.

This recipe does not require many ingredients. The ingredients consist of 6 eggs (seperated), 2 cups of small-curd cottage cheese, $\frac{2}{3}$ cup of flour, 2 tablespoons of sugar, 1 teaspoon of salt, a dash of cinnamon, oil or butter for frying, and 1 cup of blueberries. The original recipe does not include blueberries, and includes cream of tartar sauce, which is not used in my family's version. Sometimes I may add powdered sugar and/or strawberries on top. Blueberries are the most important ingredient for me! The first step to making these pancakes is to beat together the egg yolks, cottage cheese, flour, sugar, salt, and a sprinkle of cinnamon in a bowl. Next, in another bowl, beat the egg whites until they are stiff, but not dry. This step is very important in order to create a nice unique and fluffy batter. If adding cream of tartar sauce, it should be added at this step; beat with egg whites. Fold the beaten egg whites gently into the cottage cheese mixture. Before cooking, oil or butter the skillet, then drop a large spoonful of batter onto the hot pan. Fry the pancakes until they are golden brown on both sides and puffy. Finally, serve pancakes while hot with maple syrup, and powdered sugar if wanted.

Cottage Cheese Inquiry Health impact

Cottage cheese is a very healthy and nutritious cheese, containing low calories and high protein. This cheese is soft, creamy, and white. Cottage cheese is considered a fresh cheese. That means that cottage cheese does not undergo any aging or rippling process. Therefore, cottage cheese has mild to no flavor. Cottage cheese contains high levels of essential nutrients and protein. For example, vitamin B6, choline, zinc, and copper can be found in cottage cheese. Cottage cheese offers a good amount of calcium, which can help promote bone strength. Cottage cheese is often used in weight loss diets because of its high protein content and low calories. The high protein results in cottage cheese being very filling, similarly to eggs. It is a great substitute for eggs. The low calories in cottage cheese is because it is low in fat. Some things to note about cottage cheese as well, is that it contains no fiber and can be high in sodium. Overall, cottage cheese is a great source of protein and very healthy.

Cottage cheese is made from curds of pasteurized cow's milk. Cottage cheese can be made using nonfat, reduced fat or whole milk. The curds can come in different sizes, such as, small, medium, or large. The first step to making cottage cheese is to curdle the milk by adding an acidic substance like lime juice or vinegar, to warm milk. As acidity increases, curds of casein protein separate from the liquid part of milk. Once the curd has solidified, it is cut into pieces and cooked to release more moisture. The final step is to wash the cottage cheese to remove the acidity, then drain to remove moisture. Cottage cheese is a flavorless, but delicious choice of protein.

Hot & Dry Noodles 做法

Sizhe (Sylvie) Luo

Recipe History

Hot and Dry Noodles is a traditional delicacy in Hubei and its surrounding area, as the most popular and common breakfast, it has been favored by people in Hubei for hundreds of years.

To trace the origin of hot dry noodles, we need to start from the prosperity of Wuhan. There's no other city like Wuhan, rises and falls with the rise and fall of the wharf. During Ming Dynasty, an accidental change of course of the Han River gave birth to a low-lying desert island along the Yangtze River, which was called Hankou. At that time, the prosperity of peace, commercial prosperity, the circulation of goods depends on water transport and port transactions. With the Yangtze River in the east and Han River in the South, Hankou faces two countries and reaches five provinces. It was truly the meeting of nine provinces in the world. It was like a throat, if one holds it, then he can hold all business connections of that time. Tens of thousands of ships stop by the ports per day, busy loading and unloading goods.

Businessmen from all over the places rush to trade, sailors who take a short break, and dockers..... People had developed a special requirement on food: fills, easy, fast, and cheap. This kind of food has a special name called the "dock food", hot and dry noodles would be a typical one.

Food born on-demand like hot and dry noodles encouraged economic growth in this area, people won't bother looking for a place to sit down to get a decent meal, which is time-consuming and expensive. The time saved can be used to create more revenue, businessmen can place a couple more orders, workers can load a couple more boxes, and the freighter can depart earlier.



Recipe

1、煮:锅中加水烧沸, 然后放入面条, 边煮边用筷子搅动, 等面条煮到7分熟时捞出来, 切记不要煮烂了; Boil: Put the noodles into boiling water, stir it with chopsticks, wait until the noodles get to midium well. Take them out.

2、淋:将面条捞出来后过一次凉水, 沥干水, 淋上一小勺香油, 用筷子拌匀后把面挑散开, 这样就不会粘在一起了; Rinse the noodles with cold water, dry out, then pour one spoon of sesame oil, stir.

3、炒:将辣萝卜还有豆角下到锅中翻炒一下盛起, 主要是加热后更卫生, 如果懒得话可以省去这一步; Fry: Fry the spicy radishes and long beans.

4、化:在小碗中倒适量芝麻酱, 加温水化开, 只要一点点水就可以了, 不要加多, 那样会很稀的, 然后加一点盐; Melt: pour sesame sause into a bowl, and add a few drops warm water to melt it down.

5、煮:热干面是需要煮两次的, 这个时候锅里烧水沸腾, 把之前淋了香油的面放在锅里经热水烫一下, 马上关火, 将面捞起来放入碗中 Boil the noodlese once more, for just 5 seconds

6、拌:在盛有面的碗里加入盐、少许老抽、一小勺生抽、少量醋、鸡精、味精、胡椒粉, 再倒入之前化好的芝麻酱, 最后搅拌均匀, 撒上辣萝卜、酸豆角和葱花就可以开吃啦。Stir: put salt, pepper, Soy sauce, vinegar, chicken essence, MSG, and melted sesame sauce, then stir, and add the fried spicy radishes, long beans and some green onion, finished!

Hot and Dry Noodles- Social and Environmental Effects

Although this kind of food brought a lot of convenience for the people, when you look at its ingredients, hidden danger can be found.

Like much traditional Asian food, hot and dry noodles contain pickled vegetables such as pickled radish. And pickled food usually contains nitrite. Nitrite is a general term for a class of inorganic compounds, which is a salt produced by nitrous acid and contains nitrite ions. There are two main sources of nitrite. The first is nitrite contained in food and water itself, and the second is food additives. It is widely found in nature, including the water people drink and the food they eat. Common types are sodium nitrite and potassium nitrite. Nitrate and nitrite exist in large quantities in the environment, including drinking water. The content of such substances in qualified water sources is generally not much and safe to drink.

However, recent research says that pickled food is not good for health. The World Health Organization also identified it as a possible carcinogen. According to the WHO's global gastric cancer incidence diagram, the number of cases of gastric cancer in China accounts for nearly half of the world's gastric cancer population. In East Asian countries that also love pickled vegetables, the incidence of gastric cancer is also quite high. One of the reasons why pickles are carcinogenic is that the nitrite in them may be converted into carcinogenic nitrosamines in the human body if overdosed. This is not unavoidable if people can be more careful on the time they pickle their vegetables. The research shows that in the process of pickling vegetables, the amount of nitrite will rise to its peak during seven to fifteen days, and after that, the amount of nitrite will decrease to a point that is safe for people to eat.

In recent years, the pickled vegetable industry has developed vigorously, and the pickled vegetable production enterprises have gradually become standardized, scaled up, and production conditions and control levels have been greatly improved. Pickled vegetables have become an important force in the food processing industry. However, with the rapid expansion of the scale of the industry, the accompanying environmental pollution problems continue to intensify, especially in the salting of pickles, the fermentation process will be configured, and the use of high salt brine (salt content > 10%) Therefore, a large amount of wastewater will be generated in the pickles salting, out of the pool cleaning and desalination and dehydration process. The wastewater has high salinity (salt content 10%-15%), high organic matter (COD_{Cr} is 4600-28000mg/L), high Nitrogen and phosphorus (NH₃-N is 60-1000mg/L), and other characteristics that make it extremely difficult to handle. High salinity, high organic matter, and high nitrogen and phosphorus will cause the death of bacteria in wastewater treatment and severely corrode sewage pipes. Therefore, it cannot be connected to the urban sewage treatment system. Direct discharge into the water body will deteriorate water quality and affect aquatic life, especially fish. The growth and reproduction of groundwater cause groundwater pollution and sudden salinization, which in turn affects drinking water safety and agricultural production in the basin. When the chloride concentration in the water body exceeds 1500mg/L, it is harmful to cattle, sheep, pigs, and other livestock and poultry. When the concentration exceeds 4000mg/L, the above-mentioned animals will be fatal.

The cation in the water is magnesium, and when the chloride concentration is 100 mg/L, it can make people poisonous. Discharge of high-salinity wastewater, while polluting the environment, a large amount of salt is lost with the wastewater, which also causes a great waste of resources. Therefore, the comprehensive treatment and recycling of pickling wastewater have gradually become a "bottleneck" problem that many pickle companies must overcome to maintain sustainable development.

Sounds terrible, but the good news is that the industry has found a solution already. The way people deal with the wastewater from pickle vegetable industries is to use advanced techniques to balance its pH and to neutralize the salt content. The process is extremely complicated and professional so the description will be omitted here.

If we out to replace the pickled vegetable in hot and dry noodles, salt-baked vegetables would work too. The taste will not be as good as it was but it is more sustainable and also healthier.

Works Cited

<https://patents.google.com/patent/CN106219851A/zh>
<https://www.zhihu.com/question/22550712>
<http://health.people.com.cn/n1/2018/0118/c14739-29771763.html>
[1 https://www.52shijing.com/lshjm/67858.html](https://www.52shijing.com/lshjm/67858.html)

Wet Noodles or Dry Noodles

Tailai Liao

Family History

My friend from Chongqing: the first thing we want to do when they come back home is to have a bowl of small noodles.

My mom: Chongqing small noodles unlike hot pot, it is cheap and easy to cook. Every morning we would like to have a bowl of small noodles due to limit of the time.

My grandma: The noodles is basically meatless, if the noodles has meat and other fried sauce, it cannot be called Chongqing small noodles. The taste of noodles is numb and spicy, so it can dispel dampness.

Recipe History

The history of Chongqing small noodles: During the Southern Song Dynasty, Genghis Khan rose rapidly, leading the Mongolian army to fight everywhere in order to expand its power and territory. Chongqing had also become one of their targets. In order to resist the attack of Genghis Khan's army, the prefect of Chongqing built a city called "Fishing City" in a place called Hechuan in Chongqing. At that time, the Mongolian army that went to attack Chongqing was strong. There was a battle with the Southern Song army on the Fishing City. At that time, the Southern Song army also stubbornly resisted, and eventually the Mongolian army could only fail.

During the campaign, the air was cold and rainy in early spring. In order to protect the soldiers from the wind and cold, the men in the Southern Song Army mixed spicy oil seeds, green onions, ginger, garlic and noodles for the soldiers to eat. Since then, some small vendors have revived Chongqing small noodles in order to survive. The culinary culture of Chongqing small noodles originated on the street and alleys. In the past, the hawker's shoulders picked up baskets and shuttled to the houses to sell the noodles which are the prototype of the Chongqing small noodles. It has changed from the shoulders of the hawkers to the street side and then switched to the facade, and the ingredients are becoming more and more abundant as the development of economy.



Recipe

1. Prepare noodles
Wet noodles or dry noodles
2. Prepare Various Spices
3. Chop the ginger and garlic and add to a bowl of water. Pick, wash, and chop chives. Adjust the sauce while the cooking water for the noodles is not boiling: add two spoons of soy sauce, half a spoon of chicken essence, half a spoon of monosodium glutamate, one spoon of green onion, two spoons of pepper noodles, two spoons of hot pepper sea pepper, one spoon of lard, one spoon of cooked seed oil, a spoon of peanuts and pickled vegetables, two spoons of noodle soup to the seasoning bowl.
4. After the water is boiled, put in a small handful of noodles, then quickly stir it with chopsticks, add water spinach, and cook until it is broken (pinch a section with your hands, and there is no white spot), then you can fill the bowl.

The Introduction of Sichuan Pepper

When it comes to Sichuan cuisine, the first thing we think of is spicy. For example, Mapo tofu, which is the most well-known dish for foreigners, as well as the boiled pork slices and spicy chicken that we eat most often. They are all made with hot peppers and very spicy.

The history of Sichuan cuisine is that Sichuan is relatively closed during peacetime, and the so-called "Shu(which refers to Sichuan) Road is difficult to reach the sky." However, whenever confronted with wars, it is easy to become a refuge for refugees or vagrant regimes. From Liu Bei of the Three Kingdoms at the end of Han Dynasty to the founding of Shu, to the refuge of Emperor Ming of Tang in Shu, to Chongqing as the companion capital of the modern War of Resistance against Japan, each time it was accompanied by large-scale "immigration", forming a unique immigration culture. The characteristics of Sichuan cuisine are born out of this unique history of cultural integration of immigrants.

In ancient China, there were many spicy seasonings. In addition to Chinese pepper, there were ginger, cornel, Fuliuteng, osmanthus, mustard and so on. Before the Ming Dynasty, pepper, ginger, and cornel were used most, and they were called the three major spicy condiments of the Chinese folk, which called "Three spicy".

Zanthoxylum bungeanum is the first of the "Three spicy". In ancient China, there were more than ten names such as Sichuan pepper, Han pepper, Ba pepper, Qin pepper, Tang pepper, Shu pepper, etc., indicating that it was widely planted in the upper and middle reaches of the Yangtze River and North China. However, at the beginning, pepper were not used for food, but as an incense to worship the gods.

Zanthoxylum bungeanum was grown in sunny, warm, and fertile places. The fruit is a seasoning, and aromatic oil can be extracted. When used as medicine, it has the effects of dispelling cold and dampness and killing insects; seeds can be squeezed from oil; leaves are used to make pesticides.

Adding some when cooking can make the dishes more flavorful. Pepper is not only a very good ingredient, but also a helpful medicine.

Reference

<https://www.douban.com/note/741886969/>, assessed 14 November 2019

Sour Round Dumplings

Weixin (Ursula) Haung

Family History

Back when I was under 10-years old, and my grandparents were still healthy enough that they were able to prepare the meal on New Year's eve, we made our own salty rounded dumplings. Rolling dough into little small balls is one of my favorite activities during the New Year. It was not just cooking, but a very precious memory that I shared with my cousin and other families.

However, as we grow up, the time that we shared together seems so far to us. We all have our own lives that we never will have this time again. Our grandparents are aging, and every New Year that we can be with them, will be like counting backwards. The food connects us. It carries us to so many beautiful memories that we can never forget.

Recipe History

The salty rounded dumplings are the native cuisine that we will have on Chinese New Year's eve in my hometown. In most of the areas in Southern China, the dumplings for the New Year are the sweet ones, filled with either sesame paste or peanut butter. But what the local people in my hometown made is much smaller, and with no filling inside. Salty rounded dumplings always go with the soup of chicken, squid, mushroom and cabbage instead. Unlike the dumplings in other places, the salty rounded dumplings focus on the soup. It takes hours to prepare the soup, that is with tons of different kinds of ingredients.

Dumplings in Chinese is pronounced " Tang Yuan". The pronunciation of the dumplings is very similar to the word Reunion—" Tuan Yuan". Children outside are going back to be with their parents. Every family pins their hope of reunion on dumplings they made.



Recipe

Ingredients: round dumplings (flutinous rice)/ pork/ shrimp/ dried squid/dried mushroom/ cabbage/ chicken/ green onion/ garlic

1. Soak dried mushroom and dried squid
2. Roll the dough in to small rounded balls.
3. Chop cabbage
4. Cut pork and chicken
5. Cut green onion and garlic
6. Fry cabbage with oil until it gets soft and put it out
7. Fry squid, shrimp, chicken, pork with more oil
8. Add dried mushroom and add a lot of hot water to make soup

9. Add cabbage into the soup
10. Add rounded dumplings
11. Wait until the dumpling floating , add green onion above(ready to eat)

Flour and Health

Flour is one the most commonly used ingredients in cooking. No matter if making bread, cakes or other food like dumplings, flour is the main ingredient in most recipes. When mixing your favorite batter, the flour plays its role in mixing the ingredients into a dough and adding texture and flavor.

However, Ordinary flour is made by grinding whole wheat ears. Whole wheat is rich in nutrients, but it loses a lot of beneficial ingredients when it is deeply processed into high-precision white flour, and its sugar-increasing influence increases. Over consumption of flour can make people unhealthy.

Flour substitution's benefit is that you can still enjoy the same texture and strength as ordinary flour, but the effect of sugar is able to be controlled. The taste is richer, and it has a variety of nutrients as well.

Flour substitutes are usually made from nuts, seeds, beans and other grains. Diversified ingredients and fiber are also very beneficial to intestinal health. For instants, tapioca or coconut powder are very popular substitution of flour. They are much healthier than normal flour and enrich the flavor.

Chinese Pearl Meatballs with Sticky Rice

Xi (Alex) Ao

Family History

Each family will make the Chinese Pearl Meatballs with Sticky Rice according to the family's taste. My family is not an exception, since my grandmother's mother started to make this dish. Because my father has diabetes, my mother would put less salt and sometimes use beef instead of pork. This dish is usually served only at festivals.

Recipe History

There are two ways to make Chinese Pearl Meatballs with Sticky Rice, one is fried, the other is steamed. Steamed Chinese Pearl Meatballs with Sticky Rice come from Hubei, China. According to historical records, Chinese Pearl Meatballs with Sticky Rice were at the very beginning a palace dish.

In August 1900, the Eight-Power Allied Forces invaded China, and Beijing was invaded. Xiao Dai was the imperial chef who specialized in eight treasure rice and Chinese Pearl Meatballs with Sticky Rice in the imperial kitchen. He saw all the people run away from Forbidden City (where the emperor lived), and he ran away too and went to Hubei. He took Chinese Pearl Meatballs with Sticky Rice to Hubei. Xiao Dai's restaurant became famous, and the recipe began to spread.



Recipe

What you need:

Minced pork tenderloin

Minced ginger

Egg

Black pepper

Salt

Cornstarch

Sticky rice

Let's get start:

1. Dunk sticky rice in water for one night
2. Whisk together 500 grams of pork, 3 tablespoons of ginger, 1 egg, 5 tablespoons of cornflour, and black pepper (amount to taste) as well as possible.
3. Shape the mixture into balls
4. Coat the meatballs with sticky rice
5. Put the meatballs on the steamer
6. After the water in steamer boils, wait for 35 minutes,
7. Eat!

Environmental Impact

In 2016, global pork production exceeded 116 million tons. The market for pork is still growing. China, with a population of 1.4 billion, is the largest producer and consumer of pork. Such a huge demand will inevitably stimulate the production and trade of pork. The production of pork certainly involves industrialized pig farms. The environmental pollutants produced by pig farms mainly include feces and urine, sewage, harmful gases, dust, pathogenic microorganisms, excessive heavy metals in feed, and sick and dead pigs.

First of all, pig feces can cause air pollution. Pigs excrete a large amount of feces and urine, which contains a lot of organic matter. These organic substances decompose and ferment to produce hydrogen sulfide, amines, mercaptans, benzoic acid, volatile organic acids, indole, skatole and other substances, which pollute the atmospheric environment. In addition, the atmosphere containing these harmful substances can cause respiratory diseases of humans and animals, and affect the health of humans and animals. Taking an average production efficiency pig farm as an example, the global warming potential (GWP) per kilogram of carcass weight leaving the slaughterhouse is 3.5 kg CO₂-eq, and the acidification potential (AP) is 43.8 g SO₂-eq, and the eutrophication potential (EP) is 32.1 g PO₄-eq.

Secondly, pig manure can also cause water and soil pollution. If a pig farm discharges pig manure and urine without treatment the surface water, soil, and groundwater will be contaminated. Some pathogenic microorganisms and parasites survive and multiply in water and soil for a long time, which can easily cause the spread of disease. If the pig farm uses excessive additives in the feed, the soil around the pig farm will also be contaminated.

In conclusion, the consumption of pork produces a lot of greenhouse gases, harmful gases and other substances into the environment. The atmosphere, water, and soil will all be negatively affected. In order to reduce the impact of pig farms on the environment, we can reduce the amount of pork consumption. Or waste from pig farms, mainly pig manure and urine, should be treated before being released into the environment.

1 István Szűcs and Viktoria Vida, "GLOBAL TENDENCIES IN PORK MEAT - PRODUCTION, TRADE AND CONSUMPTION," *Applied Studies in Agribusiness and Commerce* 11, no. 3-4 (December 31, 2017): pp. 105-112, <https://doi.org/http://dx.doi.org/10.22004/ag.econ.273280>, 106.

2 G. A. McAuliffe et al., "Environmental Trade-Offs of Pig Production Systems under Varied Operational Efficiencies," *Journal of Cleaner Production* 165 (November 1, 2017): pp. 1163-1173, <https://doi.org/10.1016/j.jclepro.2017.07.191>, 1163.

Bibliography

McAuliffe, G. A., T. Takahashi, L. Mogensen, J. E. Hermansen, C. L. Sage, D. V. Chapman, and M. R.F. Lee. "Environmental Trade-Offs of Pig Production Systems under Varied Operational Efficiencies." *Journal of Cleaner Production* 165 (November 1, 2017): 1163-73. <https://doi.org/10.1016/j.jclepro.2017.07.191>.

Szűcs, István, and Viktoria Vida. "GLOBAL TENDENCIES IN PORK MEAT - PRODUCTION, TRADE AND CONSUMPTION." *Applied Studies in Agribusiness and Commerce* 11, no. 3-4 (December 31, 2017): 105-112. <https://doi.org/http://dx.doi.org/10.22004/ag.econ.273280>.

Zha Jiang Noodles 炸酱面

Yuchen (Cloris) Ding

Family History

Zha jiang noodles is a traditional taste from Beijing, and every family have their own taste of the sauce. The noodles usually come with several choices of small dishes on the side. That Includes lots of different kinds of vegetables and flavors. When you have noodles, you can choose what to put in them, finishing with the sauce on top.

Though the taste of noodles is important, and my family makes their own handmade noodles, but the spirit of this food is the sauce. I'm recording the recipe of the sauce of my family.

My mom's secret recipe is not a secret at all, just a little add of ketchup is the additional material we have in our sauce. Every family has a different taste. Some likes it to be a little bitter, some a little be sweet, some may add more salt. And the seasonal vegetables we add in each time we have noodles are different as well. But for me, the fried sauce noodles reminds me of my home.



Recipe

Recipe of the sauce (process of making) in Chinese:

锅烧热后，放入半碗油。等油烧热后，放入适量大料、花椒。待香味出来后，放入猪肉丁(最好是肥瘦相见的五花肉)，煸炒肉丁。放入葱末和一小部分姜末一起煸炒，放入黄酱(黄豆发酵后的酱)、一点甜面酱、一点豆瓣酱。在快要干的时候，放入一点水，继续煸炒。这样反复煸炒，十到二十分钟。把剩下的姜末放入，再继续煸炒。在差不多三十到四十分钟的时候，可以看出酱料表面有一些厚厚的油，酱的颜色深棕色有一些发黑，就做好了。

Sauce Recipe in English:

Oil

Aniseed and Chinese Prickly Ash

Pork

Scallion and ginger

Yellow sauce (made from Yellow bean)

A kind of sauce that tastes a little bit sweet

A kind of sauce made from beans

A little bit of ketchup added to the sauce is the secret of my family.

It adds the flavor of natural sweet and sour from the tomatoes.

Recipe History

<https://baike.baidu.com/item/炸酱面/369063?fr=aladdin>

The link in Chinese about the instruction of fried sauce noodles.

Here is a short history of the friend sauce noodles I transferred from this link:

In the Northern part of China, people are used to eating noodles and other flour-based carbon, instead of rice based carbon as in the southern part of China. All the flour-based carbon are called “面” in Chinese. But in Beijing, “面” is typically used to describe noodles. Noodles has the meaning of longevity, because of its length and tenacity. In Beijing, one must have noodles on their birthday. And in Beijing, there is a saying: “人生有三面, 即洗三面、长寿面、接三面” telling that there are three kinds of noodles one person must eat during the special days in their life.

The first one 洗三面 means that after a child has born three days, all their family members and friends would come to have noodles, in order to bless them living a long life. The second one 长寿面 means the noodles that should have every birthday. The last one 接三面 means after a person's death three days, all their family members and friends would come to have noodles, in order to memorize them and not forget them as the noodles aren't easy to break.

~~And let's~~ back talking about the literal history of fried sauce

The first appearance of this fried bean sauce was during Han dynasty, approximately 200BCE. And the first appearance of the slim noodles we have for fried sauce noodles was during Jin dynasty, several hundreds years later. But not until Qing dynasty, when these two kinds of material meet each other, and discovered by our ancestors the tasteful flavor of the fried sauce noodles. And later in 1882, Qing soldiers in nowadays Inchoen, South Korea brought the noodles there and became a popular food since then.

Environmental Impact

The production of meat has large environmental impacts - increasing greenhouse gas emissions, agricultural land and freshwater use. One of the world's most pressing challenges is to produce and consume meat, dairy and other protein products in a way that reduces its environmental impacts. When reading an article online talking about how much difference there could be consuming meat and plant-based foods, I was shocked by the differences shown by the graph showing "kgCO₂eq per kg". Then I started to look for the alternative diet for vegan. I worried that might not enough nutrition would be obtained from only plant-based foods, because I'm having no meat or dairy at all. To my surprise, it was quite easy to obtain protein from plant-based foods. The most familiar one is soy bean, and the familiar foods are tofu and soy milk. And then I searched for any plant-based foods that have a similar taste of different kinds of meat and dairy. There were a lot!

The spirit of the fried sauce noodles I have in my home country is the taste of pork in the sauce. Luckily, I found a kind of substitute that could imitate the taste of pork - tempeh. Tempeh is considered as perhaps the best substitute for pork. It has a reliable dry texture along with a tangy flavor. Tempeh is made from a combination of beans and grains or fermented soybeans. Since it is a frozen good, it's important that it is cooked thoroughly prior to consumption. And another element of the friend sauce noodles that could produce more "kgCO₂eq per kg" is the oil we use. I learned from the graph that rapeseed oil and sunflower oil produce similar amount of "kgCO₂eq per kg", though might not be the lowest, but at least lower than pork oil or lamb oil. (Some Chinese dish requires pork oil to increase the flavor, though they taste super delicious 😊.)

That's what I've found about how vegan people have a happy and healthy diet. Being vegan a month, I could feel there is less garbage inside my body and I could feel my body is lighter and healthier. I'm happy I realized the importance of being a vegan at my 21 birthday, and I wish there will be more delicacies created based on plant-based foods!

Sour Plum Soup (Popsicle)

酸梅汤(冰棒)

Yumeng Wu

Family History

Since I was a high school student, sour plum soup has been a regular drink in my family. I also make it into popsicles in the summer, and now I still make them after I have lived in the United States. Sour plum soup is a traditional refreshing drink, and the raw materials used also give this drink some medicinal properties.

traditional Chinese medicine and beverages. The sweet-scented osmanthus Sour Plum Soup that our house often makes is also from this period.

My mother grew up in Guangdong when she was a child, and it was until my grandfather retired from the army that she came to Zhengzhou. My mother told me that sour plum soup was her favorite drink when she was a child. Guangzhou is a very hot and humid city in summer. All medicines for clearing heat and detoxification are unpalatable except for sour plum soup, in my mother's impression. Sour plum soup is a traditional refreshing drink, and the raw materials used also give this drink some medicinal properties. As far as I can remember, sour plum soup has never stopped in the summer. I still remember that when I first came to the United States, I brought a pot and some sour plum soup materials. It has become an indispensable partner for me in the summertime.



Recipe

Roselle, Licorice, Tangerine Peel

Mint

Osmanthus

Rock Candy

1. Wash Plum, Hawthorn, Mulberry, Roselle, Licorice, Tangerine peel, and Mint.
2. Put all the ingredients in a bowl, add a small amount of water and soak for half an hour.
3. Pour the water into the pot, then add an appropriate amount of purified water.
4. After the high heat is boiled, turn to low heat and simmer for one hour.
5. Turn off the heat, add an appropriate amount of rock sugar, filter out the raw materials.
6. Add osmanthus when the liquid is completely cooled.
7. Pour into popsicle mold and put in the refrigerator overnight.

Health and Sugar

Sour plum soup is a traditional Chinese medicine drink that has been proven by history for thousands of years. There is no problem with its recipe because it is composed of traditional Chinese medicine, however; there is one additional ingredient, and it is also very important for sour plum soup—Sugar. The original sour plum soup is super sour, so people like to add a lot of sugar to it for taste.

Sugar is a two-sided existence. On the one hand, sugar can provide energy to the human body and cannot be replaced; on the other hand, sugar is the most widely used "legal drug" in the world, which can make people addicted. Sugar is the main energy material for cell respiration. Carbohydrates produce APT through glycolysis, and ATP is directly used to maintain human life activities. Therefore, when human body function declines, people will choose to supplement glucose first. Glucose is a kind of sugar that can be directly absorbed and utilized. It is an indispensable substance in life activities. It can directly participate in the process of metabolism in the human body. Glucose can replenish water and sugar has the functions of replenishing human body fluids, supplying energy, Carbohydrates produce APT through glycolysis, and ATP is directly used to maintain human life activities. Therefore, when human body function declines, people will choose to supplement glucose first. Glucose is a kind of sugar that can be directly absorbed and utilized. It is an indispensable substance in life activities. It can directly participate in the process of metabolism in the human body. Glucose can replenish water and sugar has the functions of replenishing human body fluids, supplying energy, replenishing blood sugar, and protecting and detoxifying the liver.

Sugar can make people feel good in a short time. When a person is in a bad mood, the body will easily lack nutrients. Because of mood, emotions and brain vitality have a relatively huge relationship, when the human is more upset, anxious, and irritable, and they will need more sugar for their brain. Sweets can stimulate the human brain to release endorphins, and endorphins can regulate mood, which is exciting. In addition, when the blood sugar content of the human body is reduced, the human body is in a state of low blood sugar and hunger, then humans will be more likely to be angry, lose temper, and be indifferent. Secondly, eating sweets will bring satisfaction and satisfy the body's taste needs, which can ease the mood.

Because sugar is highly addictive, sugar is the most widely used "legal drug" in the world. The addictiveness of sugar is 8 times that of cocaine and the lethality rate is 5 times that of cocaine. In human's daily life, people can easily overdose on sugar, and the overdose is super harmful to health. Excessive intake of sugar can easily cause the body to gain weight, cause cardiovascular and cerebrovascular burdens, and increase the incidence of high blood pressure, hyperlipidemia, and diabetes.

Recipe History

Sour Plum Soup appeared thousands of years ago. It is one of the oldest traditional drinks in China. The historical background of sour plum soup is very long. As early as the Shang Zhou dynasty, the ancient Chinese had already used plums to extract the sour taste as a drink. The oldest Chinese classic drink the "醪" mentioned in the "Book of Rites" is plum drink, which was an important drink at that time. In the history record books of the Song and Yuan dynasties, there are records of some plum drinks. According to historical records, the drink made from ebony plum, hawthorn and licorice that appeared in the late Yuan Dynasty is the prototype of modern Sour Plum Soup.

In the Qing Dynasty, Sour Plum Soup became one of the most popular drinks in the court. Especially Emperor Qianlong liked it. Emperor Qianlong liked a healthy diet, and the Sour Plum Soup was a combination of traditional Chinese medicine and beverages. The sweet-scented osmanthus Sour Plum Soup that our house often makes is also from this period.

<https://baike.baidu.com/item/%E9%85%B8%E6%A2%85%E6%B1%A4/947558?fr=aladdin>

Chinese Dumplings (Jiaozi)

Yaxuan (Sussie) Zhang

Family History

Transcription of the interview with my mother: "The custom of eating jiaozi on New Year's day and at farewell dinner of relatives or friends is inherited from our older generation. Jiaozi symbolizes reunion and good luck. When family members eat jiaozi together, they convey good wishes to each other. Especially on the Chinese New Year, we will put a coin in one of the jiaozi. Whoever eats the jiaozi with the coin in it is said to have be fortunate in the coming year. The recipe of jiaozi in our family was learned from your grandmother. Because our whole family love beef, we often made jiaozi filled with beef stuffings. I hope this recipe will continue to be passed on to you and your children. "

Since then, jiaozi have been widely spread among the people. The custom of eating jiaozi during the Spring Festival became popular in the Ming and Qing Dynasties. Jiaozi are usually made before 12:00 p.m. on New Year's Eve and are eaten at midnight. This is the beginning of the first day in the lunar year. When eating jiaozi, we take the meaning of "Geng Sui Jiao Zi", which means the midnight, and is homonymous with "Jiao", which means happy reunion and good luck. (Yang)

Recipe History

Jiaozi originated in the Han Dynasty and was first created by medical scientist Zhang Zhongjing. At that time, jiaozi were used for medicinal purposes. Zhang Zhongjing used ingredients and herbs on his dough wrapper to treat diseases (mutton, pepper, etc.) and help avoid frostbite on the patient's ears.

Works Cited

Yang Kaiqi, Traditional Chinese food: dumplings, 2010.11. 26.
<http://www.chinanews.com/hwjy/2010/11-26/2684267.shtml>



Recipe

Family Recipe: Chinese homemade dumplings(Jiaozi) with beef and carrot stuffing

Ingredients: (for three to five)

*We use the different units in China and we love to say “a little” when describing the weight of ingredients, so I tried my best to collect suggestions from my family members and integrate them into this list with the transformed unit.

500g dumpling flour or ordinary flour
200g water
1 or 2 eggs (due to the size of the egg)
250g carrots
10 dried Shiitake mushrooms
250g beef
2 teaspoon ginger
5 inch of a Chinese green onion
1 tablespoon Shaoxing wine
1 tablespoon cornstarch
½ teaspoon salt
1 tablespoon light soy sauce
1 teaspoon white pepper
1 tablespoon olive oil

Dried shrimps (optional) as much as you like

Dried wood ear mushrooms (optional) as much as you like

Directions:

1. Make the dough. Mix the flour and water together until it's well combined. Hold it in a regular round shape and set it in a bowl with a cover on it.
2. Let the dough rest for 20 to 30 minutes.
3. Make the stuffing. Make sure to steep all the dried ingredients in hot water in advance and make sure they are ready to cook. Chop all the solid ingredients into mince, whisk the eggs, then take a large bowl to hold these ingredients in it. Stir the stuffing with a spoon or a pair of chopsticks always in one direction (either clockwise or anticlockwise) until they are well-mixed. A good stuffing is expected to be moist, fragrant, and juicy but with barely any water leaking down when you tilt the bowl.
4. Make the wrapper. Taking out moderate dough at a time out of the bowl and make sure the left part won't dry out in the air. Sprinkle some flour evenly on the chopping board to prevent the dough from sticking. Knead the dough into a round shape and then dig a hole in the middle, shape it into a ring. Then, cut the ring into a long strip and roll it into the proper thickness. Cut them into little doughs of about one and a half inches long. Press them into pastry pieces and use a rolling pin to make wrappings (make them into evenly round shapes and remember to make them thick in the middle and thin on the edges).
5. Fill the stuffing. Fill the stuffing and fold the wrapping in half. Start the first pinch on the middle and then pinch from both ends to the middle to create beautiful folds. Make sure to pinch tightly or the dumplings will fall apart when boiling.
6. Boil the dumplings. Heat the water first until it's boiled, put the dumplings in and wait 5 minutes after the dumplings start floating on the surface. Stir them if need to prevent sticking on the pot. Check the edge of dumplings as if you see it to be semitransparent, then it's ready to serve.

Recipe History Continued

As one of the traditional Chinese food, jiaozi plays an important role in the hearts of the Chinese people. The custom of eating jiaozi has been handed down for thousands of years, which has witnessed social changes in the choice of food materials and the development of culture. The origin of jiaozi can be traced back to the Han Dynasty thousands of years ago (202 B.C.E to 220 B.C.E). Significantly, jiaozi were originally used as medicine to dispel typhoid. One winter, Zhang Zhongjing, the great medical scientist, made the first jiaozi to treat typhoid fever among the people in town. He boiled mutton and herbs in a pot, took them out and chopped them up, then wrapped them in a half-moon shape to boil. He named them Jiao'er. Jiao'er soup, with jiaozi cooked in hot water, has spread and become a staple food for people to dispel cold Qi in their bodies and treat diseases. (Jin Hui) After that, jiaozi gradually became a frequent guest on the table and was given the auspicious message and the blessing of reunion. Jiaozi can be said to be a perfect combination of traditional Chinese medicine and daily food, reflecting the wisdom of Chinese people.

No matter in ancient times or today, wheat is widely used in jiaozi wraps. The tradition of eating jiaozi is mainly distributed in northern China, which is attributed to the geographical conditions of wheat planting. Since ancient times, northern China has been the main area of wheat cultivation. As early as the Qin and Han Dynasties, northern China has developed a cooking culture from "grain food" to "flour food". There is an old saying in China: "One side of soil and water nourishes the side of people." China's agricultural conditions not only affect the composition of China's agricultural society but also create a grain-based eating habit of Chinese people. Wheat is abundant in the north of China, while the humid air in the south is more suitable for rice cultivation. No matter the wheat in the north or the rice in the south, they all contributed to the important position of the food. (Zhou Xing) With the cultural exchange between China and foreign countries in ancient times, our eating habits also spread widely in Asia, thus forming today's Asian food culture with grain as the main dish.

Jiaozi and many traditional Chinese foods reflect profound philosophy, which is the epitome of Chinese social culture. With the rapid development of agriculture, cooking science and cooking tools have also been studied and improved. Chinese people attach importance to the harmony of yin and Yang, also pay great attention to the knowledge of food cooking. The philosophy behind the culinary culture, including jiaozi, suggests the opposition between elements of water and fire, and the addition of five Wei to reconcile them, that is, cooking food with essentially opposite water over the fire and flavoring it with spices. The ancient Chinese not only summarized the natural world philosophically but also used them in daily food. (Xu Xian)

Food and cooking have been treated strictly by Chinese people since ancient times. As early as the pre-Qin period (before 221 B.C.E), it was regarded as an important component of etiquette, diplomacy, and national governance. (Wu Zhibiao) Jiaozi has been handed down for thousands of years, not only as a favorite family food for Chinese people but also as a symbol of culture and spiritual sustenance, which has always existed in every Chinese heart.

Recipe History Continued

No matter in ancient times or today, wheat is widely used in jiaozi wraps. The tradition of eating jiaozi is mainly distributed in northern China, which is attributed to the geographical conditions of wheat planting. Since ancient times, northern China has been the main area of wheat cultivation. As early as the Qin and Han Dynasties, northern China has developed a cooking culture from "grain food" to "flour food". There is an old saying in China: "One side of soil and water nourishes the side of people." China's agricultural conditions not only affect the composition of China's agricultural society but also create a grain-based eating habit of Chinese people. Wheat is abundant in the north of China, while the humid air in the south is more suitable for rice cultivation. No matter the wheat in the north or the rice in the south, they all contributed to the important position of the food. (Zhou Xing) With the cultural exchange between China and foreign countries in ancient times, our eating habits also spread widely in Asia, thus forming today's Asian food culture with grain as the main dish.

Jiaozi and many traditional Chinese foods reflect profound philosophy, which is the epitome of Chinese social culture. With the rapid development of agriculture, cooking science and cooking tools have also been studied and improved. Chinese people attach importance to the harmony of yin and Yang, also pay great attention to the knowledge of food cooking. The philosophy behind the culinary culture, including jiaozi, suggests the opposition between elements of water and fire, and the addition of five Wei to reconcile them, that is, cooking food with essentially opposite water over the fire and flavoring it with spices. The ancient Chinese not only summarized the natural world philosophically but also used them in daily food. (Xu Xian)

Food and cooking have been treated strictly by Chinese people since ancient times. As early as the pre-Qin period (before 221 B.C.E), it was regarded as an important component of etiquette, diplomacy, and national governance. (Wu Zhibiao) Jiaozi has been handed down for thousands of years, not only as a favorite family food for Chinese people but also as a symbol of culture and spiritual sustenance, which has always existed in every Chinese heart.

Works Cited

Jin Hui, 饺子的历史典故和传说, 2017

<https://www.xuexila.com/pinpai/3671530.html>

Wu Zhibiao, 浅谈中国烹饪文化, 2019.09.18

<https://www.wenmi.com/article/pxzis1033t3a.html>

Xu Xian, 中国的蒸煮食品与蒸煮食文化(下)

[https://www.ixueshu.com/document/](https://www.ixueshu.com/document/62561c397d2026c926b8f9e566478b318947a18e7f9386.html)

62561c397d2026c926b8f9e566478b318947a18e7f9386.html

Zhou Xing, 饺子: 民俗食品、礼仪食品与“国民食品”, 2007

Zhou Xing, 饺子: 民俗食品、礼仪食品与“国民食品”, 2007

Social Impact Behind Flours

- The main ingredient for making jiaozi wrap is flour, which comes from wheat. In China, especially in northern China, wheat has always been one of the main grains, which plays an important role in both agriculture and the economy.
- Wheat is the most widely distributed grain crop with the largest planting area in the world. At present, the main wheat-producing areas are still concentrated in Asia. According to statistics, it will account for 18% of global production in 2019. In recent years, the production and consumption of wheat are increasing year by year not only in China but the world as well. By analyzing the trend of the domestic wheat industry, we can see the progress of wheat planting technology and the improvement of economic benefits from the decline of wheat harvest area and the increase of wheat yield.
- With the rapid growth of China's economy, the diversified demand of Chinese customers for flour products is increasing. In addition, compared with general flour, special flour not only pays attention to appearance but also the taste and texture of food, attracting more and more high-quality food processors, restaurants, bakeries, and senior customers. With the continuous improvement of people's health awareness, more and more consumers buy high-end food products, such as products made from whole wheat flour and flour developed from other grains, which further promotes the development of China's flour market.
- At the macro-economic level, people's consumption of flour and wheat has become a part of promoting economic development. Back to the daily life of every household, people's consumption of flour also reflects the flavor of life. With the prosperity of convenience food and the fast-food industry, all kinds of food with "simple, efficient, fast" as the selling point occupy



