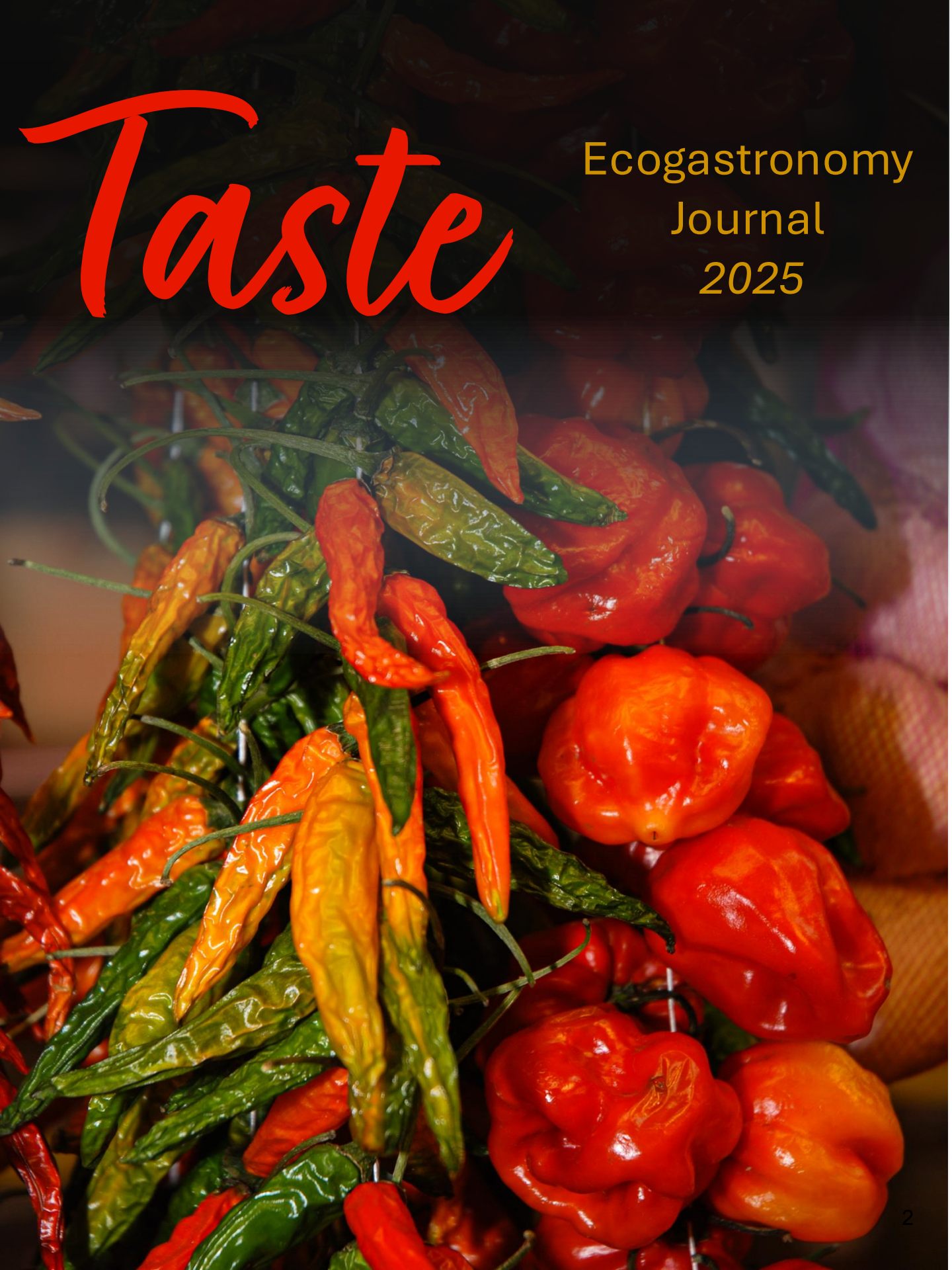


Taste

Ecogastronomy Journal *2025*

Table of Contents

Fesenjan

Fesenjan is a sweet and sour Iranian stew originating from the northwestern province of Gilan. It consists of a walnut and pomegranate sauce, is traditionally made with poultry, either chicken or duck and is served over Persian style rice. It has ancient roots going back to the Sasanian Empire.

Figure 1.

Geographic origins of the two main ingredients

The two main ingredients of Fesenjan are walnuts and pomegranates. The English or Persian walnut (*Juglans Regia*) has diverse geographic origins with its native range stretching from Eastern Europe through Iran, Central Asia and the Himalayas. This walnut is widely cultivated for commercial production. It has a thin, easy to crack shell, making it more efficient to process, as well as a mild flavour which is versatile for use in a wide variety of culinary applications. Pomegranates (*Punica granatum*) are believed to have originated in Iran and then spread to the rest of the world (Teixeria da Silva *et al.*, 2013). Their cultivation reached the Mediterranean, Arabia, India, China and Africa. Iran is the largest exporter of pomegranates with 60,000t followed by Indian with 35,176t (Teixeria da Silva *et al.*, 2013). It is known that about 5000 years ago pomegranates were domesticated in the Middle East (Chandra *et al.*, 2010).

Figure 2.

Figure 3.

Transition of Ingredients

The evolution of Fesenjan shows changes guided by human choice and preferences. An example of this is the transition from duck to chicken as the main protein source. Fesenjan originated in the northern Iranian province of Gilan, a region known for its wild duck population, making duck the traditional and readily available protein in that area. Today it is more commonly made with chicken (thighs or breasts) because they are cheaper and more widely available compared to duck, both within Iran and internationally. In Gilan alone there are over 1,000 chicken farms with 18 million chickens being bred. Furthermore, walnuts grown as crops have evolved as a result of artifical selection by humans. There are several walnut breeding programs around the world, including in California, France, China and the Middle East aiming for high yields, easy-to-crack shells, attractive and great-tasting kernels, well-timed flowering and harvest periods, and a and a strong resistance to major diseases such as walnut blight and anthracnose (Bernard et al, 2017).

Figure 4.

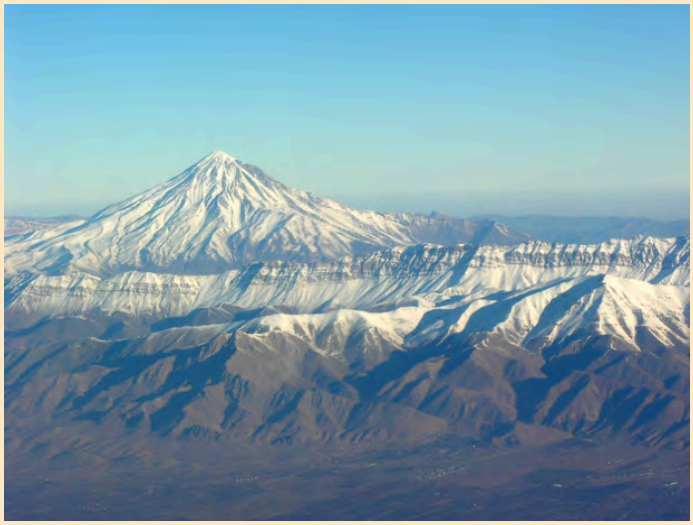


Figure 5.

Bio-Geo-Physical Influences

Fesenjan originated in the province of Gilan located in the northwest of Iran. Gilan is a coastal province, boarding the Caspian sea to the north, which is the largest enclosed body of water in the world. Gilan has a humid, temperate climate and receives high levels of rainfall each year. Gilan province contains the Alborz and Talesh mountain ranges. The Alborz mountains (Figure 5) run along the Southern Caspian Sea while the Talesh mountains are located at the western most point of the Alborz and lie along the western Caspian Sea. Gilan's unique geography leads to high levels of humidity because the Caspian Sea provides plenty of moisture to the region while the Alborz and Talesh mountains act as a barrier trapping that moisture over the region making Gilan much more humid than other parts of Iran which can be quite arid. The capital of Gilan is Rasht which is also known as "The City of Rain" due to its high annual rainfall.

Gilan has several lush forests including the Hyrcanian Forest which is a mixture of lush lowlands and mountain forests. Wild fruit trees make up approximately 10% of all wild trees in this forest including wild pomegranate (Punica granatum L.) and wild walnut (Juglans regia) which are the two main ingredients of Fesenjan (Alizadeh, 2025). In addition to having suitable climate conditions, Gilan also has very fertile soil that is excellent for agricultural purposes. These fertile lands have influenced Fesenjan by providing the key ingredients of walnuts and pomegranates. Gilan's geography supports the cultivation of walnuts which give Fesenjan its earthy flavour and thick texture when finely ground up. In the 2023 agricultural season farmers in Gilan were estimated to harvest 7,400 metric tons of walnuts. Additionally, the region's climate and soil allows for the growth of pomegranates which give the dish its sweet and tart flavour. Pomegranates are abundant during the fall harvest which traditionally has made Fesenjan a seasonal dish primarily associated with the fall and winter months.

Cultural Influences

Cultural practices have influenced the development of Fesenjan. It is prepared using pomegranates and walnuts which both carry symbolic meaning in Iranian culture. Originating in northern Iran, a region abundant in pomegranates and walnuts, the dish developed as a special occasion meal, historically considered a

Figure 6.

"rich man's dish" due to its costly ingredients and association with royal courts such as the Qajar dynasty which ruled Iran from 1728-1925. The dish is associated with celebrations such as Nowruz, the first day of the Iranian new year occurring on the first day of spring and Shab-e Yalda, an ancient Persian festival celebrating the winter solstice, the longest night of the year. It is popular in fall and winter months because are they ripened then. The roots of this dish can be traced back to the Sasanian Empire (224 AD to 651 AD), prior to the Muslim conquest. Archeologists from the University of Chicago working in Persepolis, the capital of the Achaemenid Empire (550 B.C to 330 B.C) discovered a clay tablet listing the main ingredients of Fesenjan (walnuts, pomegranates and poultry) as pantry staples. Pomegranates have great importance in Iranian culture, religion and tradition. They are regarded as a symbol of fertility, abundance and blessings. They are mentioned three times in the Quran, the central religious text of Islam.

In Zoroastrianism, the monotheistic, pre Islamic religion of ancient Persia, the pomegranate is the centre of rituals, marriage ceremonies and funerals. In Persian mythology, Esfandiyār eats a pomegranate and becomes invincible. Additionally, Herodotus mentions golden pomegranates adorning the spears of Persian warriors in his book *The Persian Wars*. Fesenjan is not the only Iranian dish that features pomegranates, there is also Kabab Torsh (sour kebab), Zeytoon Parvardeh (olives marinated with pomegranates and walnuts) and Ash-e-Anar (pomegranate and herb stew) to name a few. Walnuts are also important in Iranian culture as they are featured in several dishes and their production is the main source of employment and income for households particularly those in Hamedan province. They are a symbol of intelligence, wisdom, knowledge and inspiration.

Figure 7.

Figure 8.

Variations

Fesenjan has inspired different variants and adaptations of the dish that reflect the culinary traditions of other places. While the classic Iranian version is made with chicken or duck simmered in a rich pomegranate-walnut sauce, in the neighbouring country of Azerbaijan, a similar version of Fesenjan known as Fisinjan Pilaf is prepared. Pilaf, which is a rice dish, is the signature dish of Azerbaijani cuisine. There are many variations of Pilaf, but Fisinjan Pilaf is served with the same pomegranate-walnut sauce as Fesenjan, and it is more commonly served with beef or lamb meatballs as opposed to poultry. Contemporary cooks have developed vegan versions using lentils, mushrooms, or squash as substitutions for meat. These adaptations demonstrate how fesenjan's distinctive sweet and sour profile transforms across cultures while maintaining its core identity.

The Recipe

Figure 9.

Ingredients:

- 2 cups grounded walnuts
- 1 chopped onion
- 2 tablespoons oil
- 1 pound chicken (4 pieces of thigh or breast)
- 1 cup pomegranate paste
- 2 cups water
- 1 tablespoon sugar (optional, adjust to taste)
- Salt, pepper and tumeric

Instructions

1. Use a food processor to ground up your walnuts. Heat the grounded walnuts in a dry pan until they become fragrant and turn a light golden brown color.
2. In a pot, fry the onion in oil until golden.
3. Add chicken, season with salt, pepper and tumeric; saute until lightly browned.
4. Add the ground walnuts and mix well.
5. Add 2 cups of water; bring to a boil; then reduce heat and simmer for 45-60 minutes, until the sacue starts to thicken
6. Add the pomegranate paste, add sugar if it's too sour.
7. Simmer again for 30-40 minutes on low heat until the stew becomes thick, rich and dark
8. Serve with rice.

Figures

Figure 1: https://persianmama.com/chicken-in-walnut-pomegranate-sauce-khoresht-fesenjan/

Figure 2: https://www.delish.com/food-news/a46030545/pomegranate-health-benefits-guide/

Figure 3:
https://www.starkbros.com/products/nut-trees/walnut-trees/persian-walnut?srsltid=AfmBOop2AwTHooRzn08hqubEeZYys1fnrVtbigwL80AJfF7BeN5MDbQN

Figure 4: https://www.shutterstock.com/search/gilan-province?image_type=illustration&dd_referrer=https%3A%2F%2Fwww.google.com%2F

Figure 5: https://en.wikipedia.org/wiki/Alborz

Figure 6: https://kelliesfoodtoglow.com/2015/10/12/easy-pomegranate-walnut-stew-a-hearty-vegan-recipe-for-autumn/

Figure 7: https://minimalistbaker.com/vegan-lentil-fesenjan/

Figure 8: https://flavorsofbaku.com/portfolio-view/fisinjan-meatballs-pilaf/

Figure 9: https://www.thespruceeats.com/fesenjan-recipe-6752768

References

Alizadeh, M. (2025). Wild edible fruit trees in the Hyrcanian forests of Northern Iran: a study of ethnobotanical insights and genetic diversity [Review; Early Access]. NATURAL PRODUCT RESEARCH. https://doi-org.ezproxy.library.uvic.ca/10.1080/14786419.2025.2481611

Azerbaijan pilaf. Advantour. (n.d.-a). https://www.advantour.com/azerbaijan/food/pilaf.htm#:~:text=Fisinjan%20pilaf,meat%2C%20and%20some%20use%20poultry.

Baker, D. @ M. (2025, February 15). Vegan lentil fesenjān (pomegranate walnut stew). Minimalist Baker. https://minimalistbaker.com/vegan-lentil-fesenjan/

Bernard, A., Lheureux, F., & Dirlewanger, E. (2018). Walnut: past and future of genetic improvement [Review]. TREE GENETICS & GENOMES, 14(1), Article 1. https://doi-org.ezproxy.library.uvic.ca/10.1007/s11295-017-1214-0

Chandra, R., Babu, D. K., Jadhav, V. T., & Teixeira da Silva, J. A. (2010). Origin, history and domestication of pomegranate. Fruit, Vegetable and Cereal Science and Biotechnology. 2, 1-6.

Fisinjan Meatballs Plov. Flavors of Baku. (2015a, September 30). https://flavorsofbaku.com/portfolio-view/fisinjan-meatballs-pilaf/

Guardian News and Media. (2019a, February 9). Meera Sodha's recipe for vegan aubergine fesenjan | the new vegan. The Guardian. https://www.theguardian.com/food/2019/feb/09/vegan-fesenjan-recipe-roast-aubergine-pomegranate-walnut-sauce

Häsler, A. R. (2025, January 19). What to eat Iran 🇮🇷 Fesenjan. Swiss Global Dining. https://www.globaldining.ch/what-to-eat-iran-fesenjan/#:~:text=Other%20occasions%20that%20warrant%20serving,is%20disabled%20in%20your%20browser.

Hiking Tour Gilan, iran tour and experience. TasteIran. (n.d.-a). https://www.tasteiran.net/experiences/2050/hiking-tour-gilan#:~:text=Gilan%20is%20a%20province%20in%20northern%20Iran,up%20to%20830%20meters**%20*%20**Meeting%20locals**

Iran - gilan province, tourist attractions, rasht. (n.d.). http://www.orient-travel-pars.com/gilan.htm#:~:text=Gilan%20province%20is%20located%20in,Climate

Iran Press. (2020, September 28). Autumn fruits show arrival of Autumn in Iran's gilan. iranpress.com. https://iranpress.com/content/27960/autumn-fruits-show-arrival-autumn-iran-gilan#:~:text=Gilan%20(IP)%20%2D%20Autumn%20in,205/216

The Iranian vegan. Iranian Vegan. (n.d.-a). https://www.theiranianvegan.com/recipes/vegan-khoresht-fesenjoon-walnut-and-pomegranate-stew

Isna. (2023, July 14). Iran: Production of more than 18 million pieces of chicken in gilan. Tridge. https://www.tridge.com/news/production-of-more-than-18-million-pieces-of-chick#:~:text=Original%20content,fluctuations%20and%20the%20challenges%20...

January 23, 2018. (2025, March 31). Pomegranates: Under the solano sun. UC Agriculture and Natural Resources. https://ucanr.edu/blog/under-solano-sun/article/pomegranates

Kaghazi Walnut - Arca del Gusto. Slow Food Foundation. (2025, July 10). https://www.fondazioneslowfood.com/en/ark-of-taste-slow-food/persian-walnut-jouz-gowz-kaghazi/

Langley, P. (2000, November 4). Why a pomegranate?. BMJ (Clinical research ed.). https://pmc.ncbi.nlm.nih.gov/articles/PMC1118911/

Pellow, M. (2025, February 24). The rich man's stew: Fesenjan at Seymour Kitchen. STRAND Magazine. https://www.strandmagazine.co.uk/single-post/the-rich-man-s-stew-fesenjan-at-seymour-kitchen#:~:text=As%20the%20evenings%20grow%20colder,has%20had%20partridge%20and%20fesenjan%E2%80%9D

Pomegranate. TasteIran. (n.d.-b). https://www.tasteiran.net/stories/10045/pomegranate

Protheroe, A. (2022, June 15). The important role pomegranates play in human history. Plant Me Green. https://plantmegreen.com/blogs/news/the-important-role-pomegranates-play-in-human-history?srsltid=AfmBOorvsqv4AF8IGLN97Edv9sxx_HzvtWYqBF3hX1n21L6rD88zA460

Province of Gilan. Iran Chamber Society. (n.d.). https://www.iranchamber.com/provinces/05_gilan/05_gilan.php#:~:text=Gilan%20has%20a%20humid%20temperate,Gilani%20(and%20Mazandarani)%20cuisine.

Schwartz, L. (2025a, August 13). Fesenjan. Beryl Shereshewsky. https://www.beryl.nyc/index.php/2024/07/18/fesenjan/#:~:text=Origins,and%20the%20beauty%20of%20nature.

Soilemezidou, M. (2023, May). The conundrum of defining the Caspian Sea - Ebulletin. https://ebulletin.mepielan.gr/articles/2023/the-conundrum-of-defining-the-caspian-sea/

Teixeira da Silva, J., Rana, T., Narzary, D., Verma, N., Meshram, D., & Ranade, S. (2013). Pomegranate biology and biotechnology: A review [Review]. SCIENTIA HORTICULTURAE, 160, 85-107. https://doi-org.ezproxy.library.uvic.ca/10.1016/j.scienta.2013.05.017

Theunmanlychef. (2017, March 13). Fesenjan – Iranian pomegranate walnut stew. The Unmanly Chef. https://theunmanlychef.com/2017/03/13/fesenjan-iranian-pomegranate-walnut-stew/#:~:text=Fesenjoon%20is%20very%20popular%20in,prepared%20for%20Passover%20as%20well.

Traditional walnut system: Globally Important Agricultural Heritage Systems: Food and Agriculture Organization of the United Nations. GIAHS. (n.d.). https://www.fao.org/giahs/giahs-around-the-world/iran-walnut-system/en#:~:text=Walnut%20trees%20are%20deeply%20rooted,their%20landscape%20and%20watershed%20management.

Walnut Fact Sheet: Fruit & Nut Research & Information Center. UC Agriculture and Natural Resources. (2025, February 26). https://ucanr.edu/site/fruit-nut-research-information-center/walnut-fact-sheet#:~:text=Description:%20Deciduous%20tree;%20chambered%20pith,growing%20season%20reduces%20blight%20incidence.)

Walnut farming in Gilan. En.irna.ir. (n.d.). https://en.irna.ir/photo/85243893/Walnut-farming-in-Gilan

Walnuts: How to grow them, eat them, and Love them. Gardenia.net. (n.d.). https://www.gardenia.net/guide/walnuts-how-to-grow-eat-and-love-them

Www.wisdomlib.org. (2025, October 25). Rasht: History and travel details. Rasht (city information). https://www.wisdomlib.org/cities/rasht-1061

Figure 1: Corn flour & cooking stick.

Ugali, Sukuma & Manyachoma

Kenya's Staple Food

By Nkiko.

Student number: V01050047

Course: ES347

School: University of Victoria

Prof: Dr. John P. Volpe

Assignment: Gastronomic Journal Article. (Ugali Samaki).

Every place has staple foods. They are cooked and eaten in a big quantity and frequency in home regions. They are commonly expected and abundant as part of buffet or in other arrangements, in family and community gatherings such as funerals, graduations, birthday parties, weddings and national and faith holidays, etc. East Africa, Kenya in particular, is no exception. Ugali is by far the most eaten staple across the country and across Kenya's demography. Demography because Kenya is not a homogenous society. It is rather a true mosaic country made of multiple ethnic groups with distinct dialects, cultures and faith. Kenya is also a culturally and socially hospitable and welcoming. For that reason, it has attracted and houses multiple ethnic groups from neighbouring countries like Somalia, South Sudan, Ethiopia, Rwanda, DR Congo, and those from across the Ocean like India, and Pakistan. Among those nationwide values and practices that bind these distinct Kenyan cultures together, Ugali is one of them. It is widely eaten in all these cultures, albeit with ethnic nuances. This paper explores the origins, preparation, and contemporary significance of Ugali in Kenya, demonstrating why it remains central to East African/Kenyan cuisine, identity, and social life.

Ugali is a Swahili name/word for a stiff, thick porridge made of maize/corn flour, stirred and mixed with hot water over the stove. Ugali, therefore, is a corn meal. Since its introduction to Africa through the Columbian Exchange, corn has risen in prominence probably more than any other agricultural crop. Nunn and Qian note that the Columbian Exchange refers to the exchange of diseases, ideas, food crops, and populations between the New World and the Old World following the voyage to the Americans by Christopher Columbus in 1492 (2010, pg.163). They continue that the food crops brought from the Americas and introduced to the old world include but not limited to potatoes, sweet potatoes, maize, and cassava. It is worth noting that, this exchange was both ways in that both world reciprocated exchanges of ideas, crops, and diseases albeit to varying degrees. Mangelsdorf, contends that it is precisely in Cuba that Columbus first encountered corn and brought it to Europe (1986). He goes on to state that by the time Columbus discovered corn, it was being cultivated from present day Canada to Chile by the inhabitants of the America. The success in the adaptation of the new world agricultural products was fast and effective in almost all parts of the old world, Africa in particular.

In East Africa maize accounts for 30% of all calories; Kenya and Tanzania are sixth and fifteenth on the world list of percentage consumption (McCann, 2007, pg.247). The explorers have introduced these Americas products in Europe, Africa, and Asia, but little did they know that these agricultural crops would become staples, and that their uses would vary from culture to culture. Although corn is a global crop, Ugali is a unique dish in East Africa, Kenya, and other Sub-Saharan countries. To Kenyans, Ugali stands up as the most usefulness of corn and corn flour.

Ugali preparation.

Figure 1: Ugali meal, beans and Basa steak as side dishes. Made by Nkiko

Ugali is a simple recipe to make. For its preparation, what one ought to do is to place a cooking pot with water on a stove and bring it to the boiling point. The amount of water determines the size of Ugali to be made and how soft or firm it will be. This may involve measurements of water cups per corn flour volume. Personally, I do not use measurements because I don't need them – I rely on my intuition. Some cultures use raw or pasteurized milk instead of water, others use a bit of salt and oil or butter. But my culture uses water and adds no ingredients. The logic is that Ugali needs to come natural and flavour neutral. All ingredients and seasoning apply to the side dish to be served with Ugali. Now that water has started to boil, the cook pours the flour into the pot, and using Mwiko (A wooden cooking stick), he stirs the flour until water is entirely absorbed by the flour.

Depending on the experience, the person may need to pour into new hot water or more flour to achieve the needed texture and firmness of the meal. After water has hit the boiling point, the *kusonga*, which is the process of making Ugali, may not take more than 10 minutes to make. However, it is much faster and quicker when making Ugali for one person than it is when making ugali for say, 10 people or more, on those big family days. The *kusonga* or the stirring process needs to be consistent because this is when the texture of the Ugali is determined. But also, it needs to be consistent to avoid lumps of flour from forming within Ugali. Thus, it is important to make sure that *mwiko* turns every part and side of the Ugali throughout the process. This involves a bit of muscle energy in one's hands where one hand holds tight to the handle of the pot, while the other is stirring the Ugali in becoming.

Kusonga forms ugali and gives it the desires texture (I must add that texture is also determined by the kind of flour chosen for this. Some flour i.e. Jogoo, or Posho are among the most known and preferred in Kenya. Some are white in Color others are Yellow, coarse or smooth, stretchy or not. These characteristics are a product of farming process, maize breed, and griding technology.) but the last step of it, is as important as the initial ones because it gives it the final presentable shape. This, again, is a matter of cultural and personal preferences, there is no right or wrong way of shaping Ugali. Some prefer it in an undivided rounded, ball-like shape, as they transfer it on a dinner plate. For others, it must be cut immaculately into pizza-like slices so that each person can easily take their portion. Slicing it can also accelerate heat release for certain family members like kids or simply those who prefer it not too hot. Thus, knives, shape-

specific utensils may be employed in this Ugali-shaping business. It is also done while the Ugali is still hot and as the last phase of kusonga.

Figure 2: Ugali dinner; beef and Bok choy as side dishes. Made by Paul Kitete, my roommate.

Now that Ugali is on a plate, its time to wash hands and eat. Just as Italians never break pasta before cooking it, Kenyans traditionally eat ugali with their hands rather than with cutlery. As mentioned above, ugali is almost flavour neutral, side dish is needed to accompany it. Ugali is never eaten alone. Side dish can be anything one likes. There is a whole range of vegetables that one can prepare as part of their ugali meal. These includes African eggplants, Njahi (Kenya's black beans), Sukuma wiki or collard greens, nyamachoma or grilled beef, fish, etc. In this journal, I have chosen nyamachoma (Swahili word grilled beef; nyama for meat and choma for roasting or grilling.) and Sukuma wiki.

Nyamachoma process

Figure 3: Ugali Nyamachoma & Kachumbali served on cutting board, by Chef Vavelo

To have juicy and tender nyamachoma, a couple of steps must be honored. First is the seasoning process: crushed garlic, thyme, paprika, black pepper, salt, ginger, rosemary, and cooking oil will be mixed together in small kitchen mortar and pestle. Before grinding them, each ingredient must be in good measure. As Chef Vavelo (2024) demonstrates it in a YouTube video whose link is in the reference, the grinding is not aiming at making ingredients completely mixed. Instead, one can still identify each of these ingredients after grinding. The next step is to take the meat, say a leg of goat and jab it with the tip of the kitchen knive. This allows the seasoning ingredient to cascade into the flesh of the meat as it grills in the oven. After this the ingredients crushed in the mortar are spread over the surface of the meat. Then, wrapped in banana leaf and tin foil, the meat is transferred on a baking trey and sent into the oven for two hours and a half under 180

degrees Celsius. On most occasions in Kenya, nyamachoma is grilled using barbecue or clay stove than oven. Meanwhile, it is time to make Sukuma wiki as beef grills.

Sukuma wiki cooking

Figure 4: Sukuma wiki & ingredients by Drzazgowski (2023)

One starts with cutting onion and tomatoes (separately) in small medium sized onion. Then add two to three tablespoons of cooking oil (in this case, it's a recipe for 1 to 2 people) on the stove and add the tomatoes, onion and salt, let them cook until they look gold. On medium heat, this takes about 5 minutes. Green pepper is usually added too, but it is entirely optional (Jikonimagic, 2018). Sukuma wiki must be chopped into small pieces on a cutting board. It is added lastly into the pot and covered for about 5 minutes. When cooking on low heat, one may add a little bit of water, say 30 ml. But usually, Sukuma wiki cooks well with steam and may need no water. Sukuma wiki is not only good for ugali, but also eaten with rice, chapati, and potatoes (smashed or not) as well. Sukuma is rich in nutrients, affordable in market, easy to cook, easy to farm and delicious as part of a meal. This is why it is such an irreplaceable staple and gained popularity across the east, central, and southern parts of Africa.

Since corn and kale/collard greens are universal crops, Kenyan Diaspora myself included, rely on these food items farmed in different places and technology to make food that looks like food from home. For example, the flour we use to make ugali here in Victoria, found in most major grocery stores, is imported from India. The different in taste and other characteristics of it, can be attributed to different geographies and other farming and evolutionary factors of corn breed used to make this flour. Although in smaller quantity and of different taste, this corn flour (Suraj makki ka atta) is a true reminiscent of food from home. In bigger Canadian cities like Vancouver, Edmonton, Toronto, Ottawa, etc., there are huge African shops that import food items like sombe (cassava leaves), Yams, flour for Kenyan chapati, plantain from Rwanda, corn flour from Uganda, ndagaa from Burundi and more. In these cities, Africans are not only cooking these recipes in their homes but have introduced them to existing mosaic culinary in Canada's big cities. It is more likely that the more African diaspora increases in Canada and north America for that matter, the prominent ugali and other African recipes will become.

Cultural food equals identity and place. It does not only offer nutrients and subsistence, but a deep sense of comfort and values. To Kenyans that is what ugali (and other recipes not mentioned in this journal) offers. Corn, from which ugali is derived, is a source of income to many families and businesses in Kenya. Since its introduction to East Africa, corn has matched both the ecology and culture of the place and largely influenced the cuisine. Ugali become popular and staple food for Kenyans of all walks of life. Although Kenyan culture and social landscapes are evolving, it is unlikely that ugali will become a thing of the past.

Reference

Aura, C. M., Nyamweya, C. S., Owili, M., Gichuru, N., Kundu, R., Njiru, J. M., & Ntiba, M. J. (2020). Checking the pulse of the major commercial fisheries of Lake Victoria Kenya, for sustainable management. Fisheries Management and Ecology, 27(4), 314-324.

Mangelsdorf, P. C. (1986). The origin of corn. Scientific American, 255(2), 80-87.

Nunn, N., & Qian, N. (2010). The Columbian Exchange: A History of Disease, Food, and Ideas. The Journal of Economic Perspectives, 24(2), 163–188. https://doi.org/10.1257/jep.24.2.163

McCann, James C.. Maize and Grace: Africa's Encounter with a New World Crop, 1500-2000, Cambridge, MA and London, England: Harvard University Press, 2007. https://doi-org.ezproxy.library.uvic.ca/10.4159/9780674040748

Adamu, I. (2024, May 14). *Sukuma Wiki*. Immaculate Bites. https://www.africanbites.com/sukuma-wiki/

Moju, K. (2025, February 18). *Ugali (Savory Kenyan cornmeal porridge)*. Serious Eats. https://www.seriouseats.com/ugali-cornmeal-porridge-recipe-8690802

Chef Vavelo. (2024b, June 29). *EASY NYAMA CHOMA RECIPE AT HOME* [Video]. YouTube. https://www.youtube.com/watch?v=vopuTOEHueo

Drzazgowski, A. (2023b, August 7). *Sukuma Wiki*. The Foreign Fork. https://foreignfork.com/sukuma-wiki/

Ode to Adobo

Bren Stevenson

Adobo is the unofficial national dish of the Philippines and possibly the dish I cook more than any other. Philippine adobo is not a strictly defined dish, more so a technique or template. Essentially, philippine adobo is a protein, sometimes marinated, that is braised in vinegar and aromatics. Adobo varies significantly across the many islands of the Philippines, between families, and even between individuals in those families. I imagine the countless versions of adobo in an evolutionary branch sharing a common ancestor.

Figure 1: Classic Dark Adobo from "There's nothing Spanish about adobo—should we ditch its Spanish name?" by B. M. N. Dacanay

I had come across a recipe for adobo while scrolling through Instagram and after making it for the first time I knew it would become a mainstay in my meal rotation. Philippine Adobo is not only delicious, but relatively accessible, economic, and extremely modifiable. Ultimately, there is a version of adobo for everyone.

What is Adobo?

To this point, I have made sure to call it Philippine adobo, that is because other countries have their own versions of adobo. "Adobo" derives from the Spanish word "adobar" which means "to marinate" (Makalintal, 2021). Adobo dishes are found in countries with a shared history of Spanish colonization and influence. Spanish adobo is a marinade of vinegar, olive oil, and aromatics like pimentón (paprika), oregano, and garlic. Proteins like meat or fish were marinated for long periods of time, not only to impart flavour, but as a method of food preservation (Rampe, 2023). Spanish colonizers labelled "similar" dishes from their global empire as adobo.

Mexico, which was controlled by the Spanish for 300 years, has its own adobo iterations. Like Spanish adobo, a food preserving acidic component is a key part of the marinade. Mexican adobo uses dried chillies such as guajillo and ancho peppers, an acidic component like vinegar or citrus juice, and aromatics including onions, garlic, tomatoes, cumin, or oregano (Makalintal, 2021). Mexican adobo can be used to marinate meat, in which case it is called "adobada", as the base of a stew, a condiment, or as a sauce commonly found in canned chipotle peppers.

Adobo is also prevalent throughout the Caribbean and South America, essentially anywhere Spain once ruled. It is important to note that Spain did not invent or import adobo to these countries but simply labelled dishes, sauces, and marinades as adobo based on their similarities. The essential ingredients for adobo existed in these regions prior to the arrival of the Spanish and using salt, acid, and

aromatics to preserve and flavour meat is not a Spanish invention. Unfortunately, the original names of these distinct dishes were likely erased and renamed adobo by the Spanish in what food historian Raymond Sokolov calls "lexical imperialism" (Dacanay, 2019). That being said, these adobo dishes likely evolved or diverged under Spanish occupation as a result of cultural exchange and global trade importing new ingredients.

Evolution of Philippine Adobo

Adobo is a marinade or dish involving the use of acid, salt, and aromatics to preserve and impart flavour on meat or fish. The Philippines has its own distinct version adobo which exists independently of the other adobos from around the world. The acid and salt in Filipino adobo preserved the cooked meat, enabling preservation prior to refrigeration. The Spanish established a colony in the Philippines in the 16th century where they ruled for over 300 years. During this period, they labelled traditional Filipino dishes involving the marination and/or cooking of proteins using salt, vinegar, and aromatics as "adobo".

Figure 2: Classic Dark Adobo from "There's nothing Spanish about adobo—should we ditch its Spanish name?" by B. M. N. Dacanay

What we consider Philippine adobo likely evolved from another Filipino dish "kinilaw". Kinilaw is fresh seafood, like fish, shrimp, crab, or urchin briefly marinated in vinegar and aromatics like onions, ginger, and chilli. This dish is similar to Mexican "ceviche" where raw seafood undergoes a form of cooking involving acetic acid as opposed to heat. Philippine adobo is essentially just cooked kinilaw. Some food writers argue that Filipino adobo is in fact a variation of kinilaw, however today they are considered separate dishes, one being raw seafood in vinegar, the other being meat stewed in vinegar (Dacanay, 2019).

The overarching definition of Philippine adobo is a protein (most commonly chicken or pork) cooked in vinegar and salt. Essentially all Filipino adobos include the aromatics: garlic, bay leaves, and black peppercorn. The earliest version of Philippine adobo is light adobo which uses only the essential ingredients: vinegar, salt, and the basic aromatics. Upon the introduction of soy sauce to the Philippines via Chinese traders and migrants had a significant impact on Filipino cuisine (Aster et al., 2023). Soy sauce replaced salt in adobo giving it a darker hue while maintaining the preservative properties of salt. This dark adobo uses soy sauce, vinegar, basic aromatics and is the most recognizable and popular version of Philippine adobo (*Figure 1)*. Alongside the classic white and dark adobos are other regional variants with distinct colours. The island of Bicol uses pairs coconut milk, green chillies, salt, garlic, and vinegar to create a white adobo (Dacanay, 2019). In the provinces of Cavite and Pampanga, mashed pork liver is added to a white adobo giving it a brown colour. Additionally, red and yellow adobos can be made using annatto seeds and turmeric.

Today, ingredients such as onions, pineapple, fish sauce, hard boiled eggs, various pepper, and sugar are all popular additions to adobo. While pork, chicken, or a combination of the two are the most common proteins to cook in adobo, the dish is made using a variety of meat and seafood such beef, shrimp, crickets, squid, goat, and more. Additionally, it is common to add vegetables like bamboo shoots, morning glory, banana blossoms, and eggplant. Vegetables and mushrooms could even replace meat entirely in adobo for a vegan option. Adobo can be further customized by the cooking technique: whether to marinade or not, reduce the liquids to a glaze or serve as a stew, or even removing the meat from the stew to fry on its own. The one thing there appears to be a consensus on is that adobo is served with rice.

Ingredients

Garlic (Allium sativum):

Garlic, native to Central Asia, is a globally popular culinary ingredient and has been cultivated for thousands of years. The consumption and cultivation of garlic was spread throughout the old-world millennia ago by travellers and migrants. Garlic was referenced in Indian culture 5000 years ago and its cultivation was written about in China existed 4000 years ago (Simon, 2020). Garlic is a ubiquitous ingredient in Filipino cuisine and has likely been cultivated there for thousands of years.

Bay Leaves:

Bay leaves come from the sweet bay tree (Laurus nobilis), indigenous to the Mediterranean where it has been cultivated and consumed since ancient times (Pant, 2025). It is thought that the dried leaves were brought to Asia as part of the spice trade. It is possible that the Spanish introduced bay leaves to the Philippines leading to it becoming a core ingredient of adobo, however, this is unclear. There exists other species commonly referred to as bay leaves, particularly the Indonesian bay leaf (Syzygium polyanthum) and the Indian bay leaf (Cinnamomum tamala). Given the prevalence of bay leaves in Filipino cuisine and its close proximity to Indonesia, it is feasible that the Indonesian variety was cultivated and consumed in the Philippines prior to Spanish colonization.

Black Pepper (Piper nigrum):

Black pepper originates from the Malabar Coast of India and is one of the longest used spices (Brittanica Editors, 2025). Although a focal point of the spice trade, it was imported to and cultivated throughout Southeast Asia long before Spanish arrival in the Philippines.

Vinegars

Vinegar is not only a quintessential element of adobo, but culturally significant part of Filipino food ways. Traditional Philippine vinegars served a crucial role in food preservation and created a national desire for sour flavours (Lim-Castillo, 2006). Traditional vinegar production is widespread in rural communities, relying on natural fermentation methods and utilizes whatever grows locally. It is suspected that craft vinegar tradition unintentionally arose from a mishap in toddy (palm wine) production. Vinegars played a key role in providing cheap and accessible nutrients to rural communities. Traditional vinegars are prime examples of Philippine food culture and show a depth of traditional ecological knowledge. In *Traditional Philippine vinegars and their role in shaping the culinary culture,* author Pia Lim-Castillo (2006) dives deep into traditional Philippine vinegars identifying 4 major

regional varieties: sugarcane (Sukang Iloko), nipa palm (Sukang Paombong), coconut sap (Tuba) vinegar, and sugar-palm (Kaong).

Sukang Iloko

Philippine sugarcane vinegar, or sukang iloko, is a traditional vinegar from the Northern Luzon Island where sugar cane plantations are concentrated. This vinegar begins as sugarcane juice which is then boiled and left to ferment for about a month resulting in a robust, slightly sweet product with a fresh sugarcane aroma. Alternatively, sukang iloko can be made from basi, a sugarcane wine, if the batch turns sour. Vinegar made from basi is fermented with the addition of a native yeast called bubud and aged in glazed jars working to create a bittersweet profile. Flavouring agents in the form of barks or leaves from the surrounding jungle may also be macerated in the vinegar during the aging process. Sugarcane vinegar is used in a variety of cooking applications such as pickling, dipping sauces, and adobo.

Sugarcane plantations are abundant in Northern Luzan where the tropical climate grows the perennial grass with ease. Sugarcane grows year-round, reaching 4 to 5 metres in 10-14 months. Sucrose rich sugarcane juice is easily extracted through crushing cut stems; however, sugarcane must be processed with 2 days of harvesting to prevent bacteria from consuming its sugars. Due to rapid and efficient growth of sugarcane, sukang iloko is the cheapest vinegar to produce.

Sukang Paomnong

Sukang Paomnong is vinegar from the central plains and riverine regions derived from the sap of nipa palms. Nipa palms grow in muddy soil along rivers and mangroves, often in brackish water. These fascinating palms play an important role in preventing erosion while the fronds are used by the locals for weaving and cooking in. The base of the palm is slashed and kicked twice a day to extract the sugary sap. Wild yeasts already present in the sap kickstart fermentation immediately. In 15-30 days, nipa sap vinegar reaches roughly 4% acidity. The flavour is relatively mild, sweet, aromatic, and often salty due to its brackish habitat. This vinegar darkens with age due to high iron content. The vinegars quality is judged by the extent to which it darkens, darker vinegar is associated with purity. Additionally, sukang paomnong contains a significant amount of nutrients including potassium, calcium, sodium, magnesium, and iron.

Kaong vinegar

Sugar palm vinegar, kaong vinegar, is made from the sap of the sugar palm (Arenga pinnata). This variety is associated with the inland forested regions. Kaong vinegar is the mildest and sweetest of the traditional vinegars and is used in cooking and salad dressings. Additionally, the vinegar was found to contain nutritionally beneficial benzoic acid. The harvesting of sugar palm sap is a long, labour-intensive process. The trees take 10-15 years to mature. Sap is only harvested from male flowering stalks which must be rocked daily before blooming. When the flower attracts hundreds of fruit flies, the stalk is tapped and produces exorbitant quantities of sap which is fermented 3-4 weeks to produce the vinegar.

Tuba Vinegar

Coconut sap vinegar, or tuba vinegar, is the most popular Philippine vinegar hailing from Southern Luzon to Midanao. To make coconut vinegar, coconut sap is harvested from the inflorescence of the coconut tree. The fresh sap is collected early in the mornings when the sucrose levels are

highest. The live yeasts found in the sap begin fermentation immediately. The fermentation process takes 45-60 days after which it is aged. What begins as a clear sap turn light brown with and contains a milky white sediment form the live bacteria and yeast called the “mother”. Coconut sap vinegar is high in nutrients and beneficial minerals thiamine, riboflavin, and pyridoxine. This vinegar is the sharpest most acidic traditional vinegar. Coconut sap vinegar has a pronounced terroir influence, the soil and proximity to the salty ocean enhance the flavour profile.

Why I Love Adobo

Philippine adobo can be described as a peasant dish. I apply this label to adobo as praise, many of the worlds best dishes like pizza and coq au vin had humble origins. A peasant dish is defined as a meal made of affordable and accessible ingredients which is filling and nutritious while using simple cooking techniques. Adobo, which uses any protein, specifically adept to make cheaper cuts of meat, including organs, tasty, nutritious, and shelf stable exemplifies the idea of peasant food. I implore anybody to attempt this dish at home. The flexibility of ingredients, ease of cooking, and budget friendly nature make it a perfect weeknight meal.

Coke & Lime Adobo with Garlic Rice

This is my enhanced take on adobo that draws inspiration from Filipino BBQ by utilizing coke in the marinade. Additionally, the lime leaves, a common ingredient elsewhere in Southeast Asia bring the classic lime and coke flavour pairing. Like other adobo recipes, this dish is easy, accessible, and customizable to your own tastes. I like to pair my adobo with garlic rice, but this is optional.

Adobo:

- 1-2kg of chicken (drumsticks or bone-in thighs)
- 1/2 kg pork belly (cut into thick slices)
- ½ cup of light soy sauce
- ¼ cup of dark soy sauce
- ¾ cup of vinegar (rice or Philippine)
- ½ cup of cola
- 1/ cup of cane sugar
- Roughly 10 garlic cloves (lightly crushed)
- 4 bay leaves (preferably fresh)
- 1 star anise
- 2 kefir lime leaves
- 1 tsp of black peppercorn

In a large bowl combine cane sugar, garlic, light and dark soy sauce, rice vinegar, bay leaves, lime leaves, and peppercorns. Add chicken and marinate for 2-24 hours. Place pork belly into a cold large saucepan or heavy bottom pot. Set to medium-low heat to render fat and brown each side of the pork belly slices then remove. Remove chicken from marinade to sear in pan, ensure to reserve marinade for later! Brown chicken on all sides, sear in batches to avoid crowding the pan, do not worry about fully cooking chicken at this point. When chicken is sufficiently browned, pour the marinade and its contents over the chicken in the pan. Bring mixture to a simmer and cook for around an hour. Once the chicken is near falling off the bone and the fat well rendered, remove the chicken from the liquid. Bring remaining liquid to a boil and reduce until thickened into a glaze. To plate, place chicken over garlic rice and coat in glaze.

Garlic Rice:

- 2 sliced scallions (whites and greens separated)
- 2-3 thinly sliced garlic cloves
- 1 cup of white rice
- 1 tbs of neutral oil

Cook rice the day before and let dry uncovered in fridge. Heat a frying pan or wok to high, add 1 tablespoon of neutral oil (enough to coat bottom), add thinly sliced garlic and the sliced scallion whites. Once the garlic appears gold around the edges, add the cooked rice. Actively toss and mix until garlic is fully golden and rice is slightly toasted. Incorporate scallion greens and remove from pan.

References:

Aster, K. G. V., Castillo, J. R. B., Cheng, S. R., & *et al.* (2023). *Sawsawan: Explicating the culinary heritage significance of Philippine condiments using bibliometrics (1972–2018)*. Journal of Ethnic Foods, 10, 19. https://doi.org/10.1186/s42779-023-00186-3

Britannica Editors. (2025, November 7). *Black pepper (plant)*. In *Encyclopædia Britannica*. https://www.britannica.com/plant/black-pepper-plant

Dacanay, B. M. N. (2019, May 1). There's nothing Spanish about adobo — should we ditch its Spanish name? *ANCX*. https://www.abs-cbn.com/ancx/food-drink/features/05/01/19/theres-nothing-spanish-about-adoboshould-we-ditch-its-spanish-name

Davidson, A., Jaine, T. (2014). The Oxford Companion to Food. United Kingdom: OUP Oxford.

Lim-Castillo, P. (2006). Traditional Philippine vinegars and their role in shaping the culinary culture. In R. Hosking (Ed.), *Authenticity in the kitchen: Proceedings of the Oxford Symposium on Food and Cookery 2005* (pp. 295–306). Prospect Books

Makalintal, B. (2021, October 19). People all over the world love adobo — but what is it? *Bon Appétit*. https://www.bonappetit.com/story/what-is-adobo?srsltid=AfmBOor2i7zEC-kyLSH926CISzkjJ32vxHLTS6YgLJs9F46B7u4bd8yE

Pant, A. (2025, November 12). *Bay leaf*. In *Encyclopædia Britannica*. https://www.britannica.com/topic/bay-leaf

Rampe, A. (2023, September 7). What is adobo? *Food & Wine*. https://www.foodandwine.com/seasonings/what-is-adobo

Simon, P. W. (2020, March 3). *The origins and distribution of garlic: How many garlics are there?* USDA Agricultural Research Service. https://www.ars.usda.gov/midwest-area/madison-wi/vegetable-crops-research/docs/simon-garlic-origins

Anhui Water Bowl

Folk cuisine from Anhui Province, China———

In Daguan Town, Tongcheng City, Anhui Province, China, there lies a delicious dish deeply ingrained in the locals' bones—the Daguan Water Bowl. It is not a simple soup dish, but a gustatory memory flowing through Wanjiang culture, a sense of ritual during festivals and family reunions, and above all, the most cherished taste of home in the hearts of wanderers.

Meat full of natural flavor

Anhui Province is located in the Yangtze River and Huai River basins, with a dense network of waterways and abundant fishery resources (such as Chaohu silver fish and black pigs from the Wannan mountainous areas), providing high-quality protein sources for aquatic dishes. Free-range local chickens and black pork from mountainous areas like Dabie

Mountains and Huangshan are traditional favorites due to their firm meat texture and evenly distributed fat.(FLGURE 1)

FLGURE 1

“Water bowls are a homesickness engraved in the genes of Anhui people”

Many local veteran chefs often express this sentiment. The water bowl, also known as 'soup bowl' or 'water banquet bowl', is a unique traditional stewed dish specific to the Jianghuai region of Anhui Province, with the most prominent presence in areas around Lu'an, Hefei, and Chaohu. It emerged from the interplay between the humid and rainy climate of central Anhui and agricultural culture—in winters that are long and cold, and summers that are hot and muggy, a hot soup blending rich broth, seasonal vegetables, and inexpensive meat became an energy source for farmers, fishermen, and miners to combat the harsh natural conditions.

As one of the local superior pig breeds in Ningguo City, Anhui Province, Wannan Black Pigs are raised in large numbers in Yangshan Village and its surrounding areas, making it the main production and breeding region.(Zhang Jun 2023)

FLGURE 2

The left image shows Emperor Qianlong (Hongli, Aixinjueluo), the seventh emperor of the Qing Dynasty, who was the longest-serving and oldest reigning emperor in Chinese history. He ruled for 60 years and brought the Kangxi-Qianlong Prosperity to its peak.（Zhang Jiquan 2024）

A soup's fame hides a legend of Emperor Qianlong

It is said that when Emperor Qianlong(FLGURE 2) traveled south of the Yangtze River, he passed through Daguan Town in Tongcheng, Anhui Province. Tired from the journey, he wanted to rest at a teahouse by the roadside. At that time, the teahouse was short of ingredients, so the owner, in a hurry, used locally produced mountain spring water and some simple ingredients such as old hens and pork bones to simmer a pot of clear soup. This was then served with seasonal vegetables or slices of meat for Emperor Qianlong to taste. （Zhang Jiquan 2024） Unexpectedly, after drinking the soup, Emperor Qianlong found the broth clear and fresh with a rich flavor, and he praised it highly. He asked the owner what the dish was called. The owner, at a loss for words, replied off the cuff, "Water Bowl." Emperor Qianlong was delighted and named it "Daguan Water Bowl." From then on, this dish became famous and is now a signature local delicacy.

FLGURE 3

Water:Soul Soup

Broth is typically made by simmering local old hens and pork bones. In the Wannan region, ham (such as Xiuning Ham) is also added to enhance the umami flavor. Auxiliary ingredients like wood ear mushrooms, bamboo shoots, and shiitake mushrooms come from the forest resources of Anhui's mountainous areas, with Huangshan Maofeng Bamboo Shoots and West Anhui Wood Ear Mushrooms being particularly renowned for their quality.

This broth serves as the "base" for all the soup bowls. Whether it's blanching vermicelli, meat slices, or fish balls, the ingredients are cooked or stewed in the broth, allowing them to fully absorb the broth's nutrients and essence, achieving an effect of "rich and full broth with lingering fragrance in the mouth." The emphasis is on "original flavor," so the broth itself should be fresh, smooth, tender, and sweet. To maintain the broth's milky white color and clear (FLGURE 3), attractive appearance, soy sauce is usually not added during preparation.

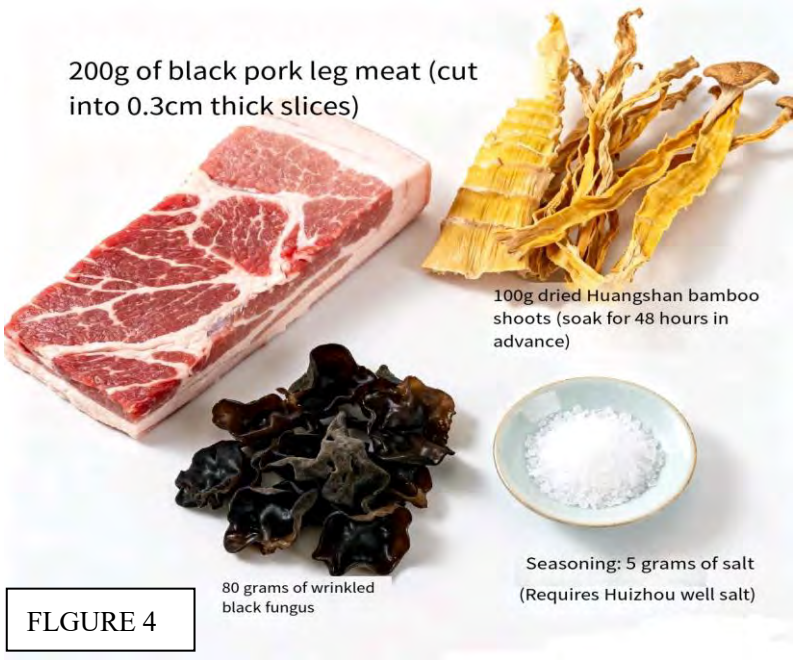
Recipe（Home Edition）

Preparation of ingredients——（FLGURE 4）

- 200g black-haired pig leg meat (sliced into 0.3cm thin pieces)
- 100g Huangshan bamboo shoots (soaked in advance for 48 hours)
- 80g crinkled wood ear mushrooms
- Seasonings: 5g salt (preferably Huizhou well salt)

Steps:

1. After the broth comes to a boil, simmer at 65° C for 6 hours.
2. Pound pork slices with tapioca starch.
3. Arrange layer by layer in the order of bamboo shoots → wood ear mushrooms → pork slices.
4. Pour the broth over and steam for 15 minutes.
5. Sprinkle with chopped green onions and freshly ground black



FLGURE 4

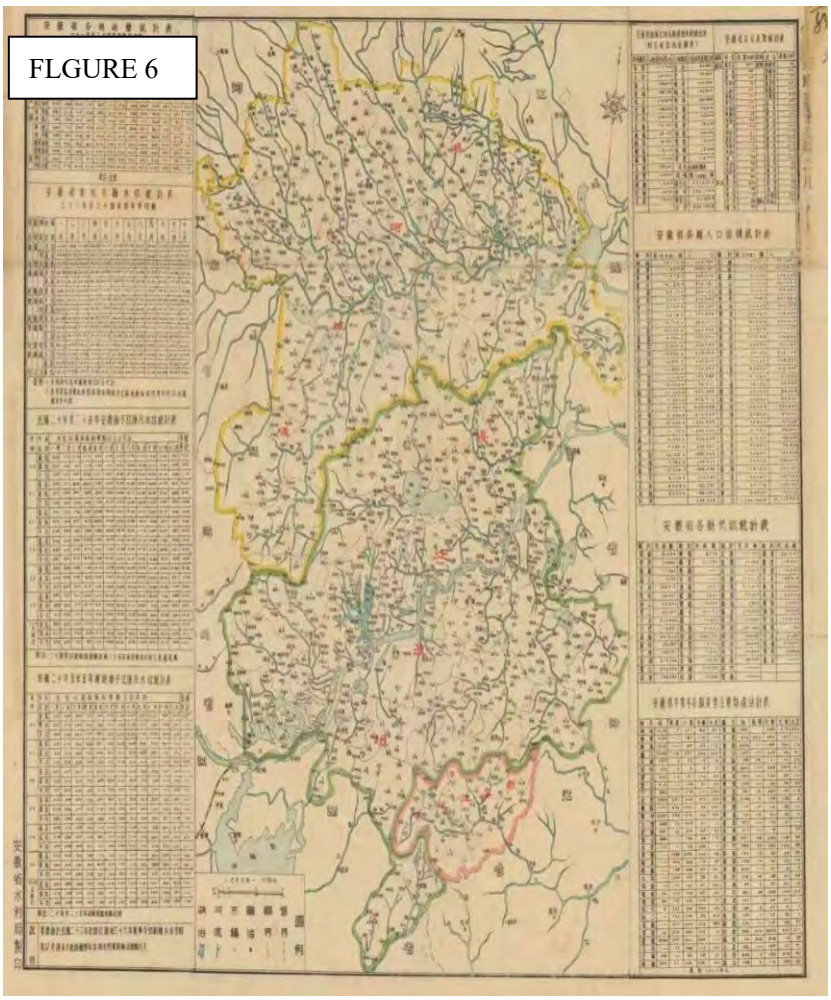
FLGURE 5

The Philosophy of the “Bowl”

In Anhui's water bowls, the 'bowl' is not only a practical utensil but also a carrier of cultural philosophy. (FLGURE 5)

Its round mouth and square bottom structure subtly(Wang Zilin 2023) aligns with the cosmology of 'heaven is round, earth is square,' while its bluish-white glaze reflects the aesthetic pursuit of Huizhou literati of 'lotus flowers emerging from clear water.' The rough porcelain bowls carried by Huizhou merchants during their travels served as containers for homesickness(Dai Sheng 2025) and embodied the philosophy of 'holding a bowl as holding one's heart'—in the balance between emptiness and fullness lies the realm of life.

A historical turning point


FLGURE 6

Induced transformation

From "boiling" to "stewing": Traditional water bowls were mainly boiled simply, and later developed into slow stewing over low heat.

Introduction of seasonings: In modern times, foreign seasonings such as chili peppers and soy sauce were introduced (Peng Na, 2017), forming the "slightly salty, fresh and slightly spicy" Anhui style.

Anhui Province has a dense network of rivers (Figure 6), such as the Yangtze River and Huai River. The 'shuowan' (a type of soup dish) primarily features broth, which caters to dietary needs under a humid climate by replenishing water and electrolytes（Chen Xuejun, Wang Beibei ） . In mountainous areas like southern Anhui, due to inconvenient transportation, local mountain products (such as bamboo shoots, shiitake mushroom and stone ear fungus) are relied upon, and the soup emphasizes the rich flavor of dried ingredients. Along the river regions, where the soil is fertile and vegetables (such as asparagus and water chestnut) are abundant, the 'shuowan' has evolved from purely meat-based broths to a combination of meat and vegetables.

Health-oriented improvement: The modern trend of low salt and low fat has led to a reduction in animal fats and an increase in the proportion of vegetables.

The activities of Huizhou merchants brought in influences from the south of the Yangtze River, such as ham for enhancing flavor (Zhang Weili, Yin Zongjun, Cheng Xiaofa), and Huaiyang (with meticulous knife skills), resulting in a diversified and integrated soup system

FLGURE 7

FLGURE 8

Key node

Mid-19th century: The prosperity of salt merchants' economy promoted the transition of soup bowls from 'satiety' to 'taste', with broth (FLGURE 7) (made from chicken and pork bones) becomin g a standard.

21st-century health trends: Plant-based proteins (such as tofu) replace part of the meat, reducing purine content to meet modern dietary needs. (FLGURE 8)

References：

Zhang Jun，Breeding and Cultivation of Special Pig Breeds in Ningguo District, Anhui Province，Guangdong Sericulture. 2023, (05)
https://www.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAST2023&filename=GDCY202305012&uniplatform=OVERSEA&v=jn1gjYrWirez8vYa6Zm7IUOC7enPKP5d6K31VUWeLEMl35ofbofypGCCKw-_lFxP

Zhang Jiquan， Selected Local Snacks: Tongcheng Daguan Water Bowl. Editor-in-Chief, Anqing Yearbook, Huangshan Book Society, Times Publishing Media Co., Ltd., 2024, pp. 44-45, Yearbook. DOI:10.38427/y.cnki.yapnj.2025.000114.
https://www.cnki.net/KCMS/detail/detail.aspx?dbcode=CYFD&dbname=CYFD2025&filename=N2025010084000128&uniplatform=OVERSEA&v=XJ8rQ8coY7EqI25N2RM5FfllEMBbiH5Ujfe3g6gHYjUCX8vEhGvGhQIQe210mxNOUA2dE3mH2Ls%3d

Wang Zilin. The Origin of 'Heaven Round and Earth Square'[J]. Knowledge of Literature and History, 2023(12):5-12.
https://www.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLASN2024&filename=WSZS202312001&uniplatform=OVERSEA&v=6E14-2QWIzDF1QmEJ4MLYHve7GCgfE81XU8EdeErqMHlU1qKnAZV0ti_tHXmz-9V

Dai Sheng. Crossing Rivers: The Daily Life of Merchants and Travelers in Inland

Long-Distance Trade of Huizhou Merchants during the Ming and Qing Dynasties[J]. Civilization, 2025(09):74-97+6.
https://www.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLASN2025&filename=WENM202509007&uniplatform=OVERSEA&v=wkjaUaBsJ0U7nVdG6K2m73TlcEQ74CxK1ZIYcWBEqtfXVGBjpu5KK6kMbkFWgHHo

Chen Xuejun, Wang Beibei. A Discussion on the Study of Anhui Regional Dietary Culture[J]. Journal of Chuzhou Vocational and Technical College, 2020, 19(04): 90-93.
https://www.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLAST2021&filename=CZZJ202004023&uniplatform=OVERSEA&v=YZ7Z79Hu44gM5XTcCjhEDjqr01JVTjMCg-4Tks29TnBdXgkaMZRb8Ej1x28x8k8j

Peng Na. Spicy All the Way [J]. Belt and Road Report, 2017(03):86-87.
https://www.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFDLASN2017&filename=YDYL201703037&uniplatform=OVERSEA&v=EXDy_eLZtgHawTbwQK7nQA-gv-CaXvHpdkeKWwIywabsNNYiub4-lGX_Ab-RD2kV

Zhang Weili, Yin Zongjun, Cheng Xiaofa. Evaluation of the Quality of Sliced Ham Meat from Wan'nan Flower Pig[J]. Swine Industry Science, 2014, 31(03): 128-131.
https://www.cnki.net/KCMS/detail/detail.aspx?dbcode=CJFD&dbname=CJFD2014&filename=TJXM201403040&uniplatform=OVERSEA&v=v7RWh2BypBUdpQsjHKra9nkWSUY7e_A9wfSNH-3HWHx73KFAtoY2aBY6enxDnM7p

Vietnam and China boarder

BÁNH MI

The sandwich that fuses east and west

Robert Minnes

Introduction

Bánh Mi is a reflection of cultural fusion through colonialism in Asia. The sandwich is a French and Vietnamese mix that brings the best aspects of both incredible food cultures into one dish. To understand the origins of this dish and where all of its parts originated from, we must first look at the relationship between Vietnam and France. Additionally, it really wouldn't be an Environmental Studies class without examining some incredibly blatant colonialism, so here is a brief history of the conquest of Vietnam by France.

https://commons.wikimedia.org/wiki/File:Flag_map_of_Vietnam.svg

Vietnam and France

During the 17th century, catholicism was being spread through Asia by European missionaries quite rapidly. During this time, Vietnam was an independent nation with Emperor Tự Đức leading the nation. Vietnam and other Asian countries alike were becoming wary of European missionaries and foreign powers gaining influence in their countries. France seized the opportunity to expand its influence in the region when Emperor Tự Đức ordered the execution of two Spanish missionaries in the mid-185Os (Pike, 2018). While France was fighting in China in the Second Opium Wars, They pivoted their strategy in 1858 and took what is now Da Nang, turning it into a French military base (Encyclopaedia Britannica, n.d.). Once Genouilly, the French admiral who led the first French and Spanish assault on Vietnam, had more resources at his disposal following the Second Opium Wars and realizing he couldn't take the land around Da Nang, sailed south and took Saigon (now known as Ho Chi Minh City following the Vietnam War) in 1859 (Encyclopaedia Britannica, n.d.; Pike, 2018).

Ha Giang loop section in rural northern Vietnam

Many argue that the execution of the two missionaries was propaganda used by France to expand their need for trade following its upsurge of capitalism after 185O. This increase in production led to the need for overseas markets and the desire for a larger French share of the Asian territories conquered by the West (Encyclopedia Britannica, n.d.). By 1862, the French had taken over all of Saigon and the surrounding area and were calling the shots in Vietnam. They demanded payments from the Vietnamese for this costly war that they "had to wage" on the country, and demanded three provinces and free use of trading ports throughout the country. This was the birth of the French Colony of Cochinchina (Pike, 2018).

Food in the early Colony

Now, back in the 1860s, food preservation wasn't quite where it is today, so the European occupiers, who didn't want to change their diets, started introducing their native livestock and crops. Obviously, to the French, it would be intolerable to suffer through a period without coffee, milk, and cured meats. Unfortunately for the French, wheat just refused to grow in the Indochina mixed forests and peatlands region (One Earth, n.d.), and therefore, the colonizers were forced to import the wheat from France, which made the commodity incredibly inaccessible, with only the French being able to afford it (Pike, 2018). The French, unknowingly or intentionally, used this inability to eat the same diet as a means to demonstrate European superiority.

Ha Giang loop near norther boarder with china

Vietnamese opportunity

Up until the great war, the Vietnamese diet really hadn't changed all that much, even with European ingredients in the country. The interesting part is that when the war broke out in Europe, the French seized two warehouses owned by German exporters full of the goods that Vietnamese citizens had been denied (Roads & Kingdoms, 2016). When the troops occupying Saigon were called home to fight, they abandoned these stores and the goods flooded the market (Pike, 2018). This may sound insignificant, but for the first time many poor Vietnamese could afford to eat cold cuts, cheeses and baguettes. Now you may think that the French would be too occupied on their home continent to worry about control of one of its far away colonies, but you would be wrong. The Vietnamese were still a colony up until the defeat of the French in 1954 at the battle of Dien Bien Phu (Encyclopaedia Britannica, n.d.). Up until this point, Vietnam ate these new European foods like their European occupiers, baguettes with a platter of cold cuts, butter and cheese. Now once the french were out that is when the magic started to happen.

Unrestricted Fusion Time

Now the word Bánh Mi directly translates to "bread" and "Sandwich" in English (Sir Kensington's, 2020). This leaves a lot of interpretation of what can go in that sandwich. At the beginning of this adaptation, Vietnamese in the south were free to modify French dishes to include local ingredients. For example, mayonnaise replaced butter, and veggies replaced the more expensive cold cuts, and the bánh mì morphed into a dish Vietnam could afford (Pike, 2018). This solidified creation of the "Bánh Mi" dish came out of Saigon in the late 1950s. When the country was split in two in 1954, millions of northerners fled south, and Mr. and Mrs. Le were among those millions (Pike, 2018). They are who you should thank for this delicious dish. They put these ingredients inside bread to enable the fast-paced, on-the-go, hustling lifestyle that reflected Saigon at the time. Because of American wheat shipments and the adaptation to local ingredients, this dish exploded all over the city and was of incredible value in terms of calories to cost. Now this dish is incredibly unique, and many of the staples you think of when you look up a bánh mi recipe are modified from their Western origin. For example, the baguette and pâté (our first two ingredients in the recipe below) are full of twists and turns.

Two Main Ingredients and Their Origin

Pâté

This is a dish that is made by blending or grinding meat with fat, herbs, spices, and other flavourings, then cooking (traditionally baked) it and serving it cold. Its brilliance is how diverse the ingredients list can be, with meat ranging from duck, chicken, beef liver and vegetables changing based on accessibility and seasons. This brilliance was not lost on the Vietnamese, as it is a staple of any bánh mi sandwich. Its ability to add a creamy texture and rich flavours to this affordable dish was part of the reason it was/is so popular. The history of Pâté dates back to ancient Rome and Greece (Taste of France, 2023). It was developed as a technique to use the full animal instead of wasting the liver and skin. In Rome, early versions of the dish were served at banquets and feasts, and over time, the recipe for pâté evolved and became more refined with different regions of France developing their own unique variations (Taste of France, 2023). The places this dish has made home salutes its origin, but brings it into modern kitchens and different corners around the world.

Hanoi's Train street at dusk

How it Changed

The Vietnamese adapted the ingredients and how it was cooked, so Vietnamese pâté is very different from its origin back on the European continent. Vietnamese pâté is typically steamed, rather than baked, which increases its moisture content and makes the final product more "spreadable" (VinWonders, n.d.). The ingredients in the dish have also changed to reflect the local palate and available goods. It contains ground pork, cinnamon, white pepper, fish sauce (nước mắm), cloves and allspice in addition to the traditional ingredients. These original ingredients that are kept are typically chicken liver, onions, garlic, nutmeg, and cognac, but it varies by establishment (Sir Kensington's, 2020). The reason Vietnamese people include this "French" staple is not just for its texture and taste, what it brings to the table. Pâté is full of essential nutrients that keep people healthy and mobile in the fast-paced lifestyle of Vietnam's southern capital. The liver is especially rich in iron, protein, and vitamins, and the addition of meat brings along fat and other essential nutrients that the body requires. Adding this nutrient-dense ingredient brings the entire dish closer to being a part of a "balanced diet" (VinWonders, n.d.).

Hội An Docking area in the areas garment district

Street stall in Hội An

The dish has been moulded by plenty of factors, including domestication, artificial selection, culinary adaptation, selective breeding/forging, and ingredient substitutes to account for local availability. To begin, the pork that is used in pâté, and to feed millions around the world in countless recipes, has been domesticated and selectively bred over thousands of years from the wild boar to the animal we have today. Through that process, the animals we raise for consumption today have higher fat content (better for spreadable pâté), milder organs, and grow more quickly (Lê & Nguyen, 2023). All of these characteristics make it ideal for use in modern dishes, especially bánh mì. As Vietnam became part of the global market, farmers saw more imports of European hybrid pigs, which had the characteristics described above and influenced the texture and flavour. With modern pigs becoming more prevalent in the country, it has allowed the meat to continue to be a staple in Vietnamese diets for decades, with it accounting for 73% of the meat consumed in the country in 2006 (Nguyen et al., 2006). Now this demand for pork definitely was impacted by demand for pâté, but most of the north eats very differently from the south and doesn't rely on pâté in the same way Saigon does. Northern-style bánh mì often uses more pâté by volume but fewer herbs and vegetables, while the south uses pâté as just one layer in a different flavour profile (Lion Brand, n.d.). What this regional difference shows is that pork consumption in Vietnam is shaped by regional variation, place-based foodways, and geographic identity, not just by the rise of the modern bánh mì. Now pork is only one aspect of the dish, an important one, but the spices used to cultivate that flavour are also subject to cultural factors. Cinnamon, cloves, nutmeg, and star anise are the outcome of centuries of cross-cultural exchange and human-driven selective spice propagation across Asia and the global spice trade (Roads & Kingdoms, 2016). These spices made their way into Vietnam long before French colonization, so when pâté arrived, Vietnamese cooks incorporated flavours that they were already very familiar with into this novel sandwich spread.

This is a dish that is made by blending or grinding meat with fat, herbs, spices, and other flavourings, then cooking (traditionally baked) it and serving it cold. Its brilliance is how diverse the ingredients list can be, with meat ranging from duck, chicken, beef liver and vegetables changing based on accessibility and seasons. This brilliance was not lost on the Vietnamese, as it is a staple of any Banh Mi sandwich. Its ability to add a creamy texture and rich flavours to this affordable dish were part of the reason it was/is so popular.

Baguette

A baguette is a long, thin stick of white bread, of a type that originally came from France (Cambridge University Press, 2024). This original description for the bread used in Banh Mi no longer holds true for the bread that someone would walk out of a banh mi restaurant or stall with in Saigon. The bread that was first inspired by the baguette has since had significant culinary adaptation and place-based influences from its colonial forefather into a completely different product that reflects the environment, culture, and daily rhythms of the people who consume it daily.

Hanois war museum statue in remberance of the fighters that lost their lives for independance

As we now know, this dish has deep colonial roots from France, and the bread, the backbone of this dish, is no different. While it started out much closer to this relative, the baguette, it had to adapt to the realities of Vietnamese biogeophysical conditions (humidity, heat, local grain availability), local tastes, and ultimately the needs of Saigon's fast-paced street-food culture. The bread has a couple of main distinctions that have shaped its texture and taste.

How it Changed

Arriving in Vietnam in the mid-nineteenth century, the baguette came with French occupiers looking to settle in the newly colonized Cochinchina (southern Vietnam). At the start of this century of occupation and governance, baguettes, or petit pains, were a source of comfort and a reminder of home. This standard was maintained because the French made up the customer base of most of these bakeries.

According to historian Erica J. Peters, making bread was one of the first things the French military taught the local population to do (Sir Kensington's, 2020). Unfortunately, the bakers who made this bread were restricted to making the French classic until the French left in the mid 50s. The bread could finally undergo meaningful temporal evolution, allowing Vietnamese bakers to adjust ingredients and methods to meet the demands of their own climate, economy, and taste preferences rather than those imposed by colonial authorities (Pajon, 2023). Once the French were out, globalization gave Vietnam and its people access to ingredients from around the world. American wheat shipments started flooding the market, making the bread that was once an artifact of French "superiority" incredibly affordable and accessible. Street vendors started popping up everywhere in the early 60s to meet Saigon's demand for these sandwiches, expanding the country's street-food culture.

Originally, the bread was called bánh tây (translating to "French bread"), and the baguettes were baked twice daily in Saigon bakeries, once in the early morning and then a second batch to satisfy the lunch rush (Pike, 2018). This was necessary to maintain freshness in the country's tropical humidity, which causes low-fat breads to stale and lose crispness within hours (Lion Brand, n.d). The bread was also intentionally made thinner to combat the chewiness that was inevitable in the humid climate (Sir Kensington's, 2020). One of the main differences between a French baguette and bánh mi bread is the mixing of rice flour in addition to wheat in the recipe. This mixing was made possible because both rice and wheat are domesticated grains shaped by thousands of years of selective breeding, and rice in particular had long been adapted to local wetland ecologies, making it readily available and culturally intuitive to incorporate into daily foods (Nguyen et al., 2006). The addition of rice is the reason for this lightness, and was done to appease the palates and taste of the Vietnamese. Vietnamese diners have traditionally valued balance and texture, so the bread was intentionally made lighter and more neutral in flavour to support the layered, multidimensional taste philosophy common in southern Vietnamese cooking (GM Hospitality Group, 2023).

Nihn Binh river tour

Overnight bus on the way to Ho Chi Minh City

The Recipe

Now I have broken down this dish far more than you would just to get to a recipe so here is the pièce de résistance (ironic that I chose French eh?)

Vietnamese Banh Mi

- 1 Vietnamese-style small baguette
- 1–2 tbsp pork/chicken liver pâté
- 1 tbsp mayonnaise
- 1–2 tsp Maggi seasoning (or similar)
- A few grinds of black pepper
- 2–3 slices Vietnamese ham / pork-loaf / pork cold cuts
- 1–2 slices roasted pork or pork belly
- 4–6 strips of cucumber
- 1/4 cup pickled carrot & daikon
- A small handful of fresh cilantro sprigs
- A few thin slices of fresh chilli (to taste)

References

Cambridge University Press. (2024). Baguette. In Cambridge Dictionary. https://dictionary.cambridge.org/dictionary/english/baguette

Encyclopedia Britannica. (n.d.). The conquest of Vietnam by France. In Britannica.com. https://www.britannica.com/place/Vietnam/The-conquest-of-Vietnam-by-France

GM Hospitality Group. (2023). What exactly is bánh mì? https://gmhospitalitygroup.com/en/ghg-magazine/post/what-exactly-is-banh-mi

Lê, H. T. T., & Nguyen, T. T. (2023). Development of livestock farming system and technical efficiency: A case study on pig production in Vietnam. Journal of Agricultural Science and Technology, 25(3), 561–575. https://www.researchgate.net/publication/369179227_Development_of_Livestock_Farming_System_and_Technical_Efficiency_A_Case_Study_on_Pig_Production_in_Vietnam

Lion Brand. (n.d.). The history and origins of banh mi. https://lionbrand.com.au/blog/the-history-and-origins-of-banh-mi/

Nguyen, T. M., Yutaka, T., & Kai, S. (2006). The pork consumption and distribution in urban areas of Vietnam before WTO accession. Journal of the Faculty of Agriculture, Kyushu University, 51(2), 459–466.

One Earth. (n.d.). Indochina mixed forests & peatlands (IM12). https://www.oneearth.org/bioregions/indochina-mixed-forests-peatlands-im12/

Pajon, L. (2023, July 17). Bánh mì is the product of cultural mixing and colonization. Le Monde. https://www.lemonde.fr/en/summer-reads/article/2023/07/17/banh-mi-is-the-product-of-cultural-mixing-and-colonization_6056160_183.html

Pike, M. (2018, January 2). The curious history of Vietnam's bánh mì sandwich. Culture Trip. https://theculturetrip.com/asia/vietnam/articles/the-curious-history-of-vietnams-banh-mi-sandwich

Roads & Kingdoms. (2016). The sandwich that ate the world. https://roadsandkingdoms.com/2016/the-sandwich-that-ate-the-world/

Sir Kensington's. (2020, February 20). Everything you always wanted to know about the bánh mì (and were too afraid to ask). https://www.sirkensingtons.com/us/en/blog/everything-you-always-wanted-to-know-about-the-banh-mi-and-were-too-afraid-to-ask.html

Taste of France. (2023, May 15). Pâté: An iconic French dish with a rich history. https://tasteoffrancemag.com/trending/pate-an-iconic-french-dish-with-a-rich-history/

VinWonders. (n.d.). Vietnamese pâté: Guide to ingredients, types & recipes. https://vinwonders.com/en/wonderpedia/news/vietnamese-pate-guide-to-ingredients-types-recipes/

Budae jigae

A Stew of Survival:

What began as a survival food has evolved into a beloved comfort dish, carrying with it stories of resilience and adaptation.

Mya Walz V00922874

ES 347 Fall 2025

The History of Budae Jjigae and It's Korean War Origins

To understand the origins of Budae Jjigae, you must first imagine South Korea in the early 1950s. A country recently ravaged by war, its fields scorched, its cities in ruins, and its people hungry. The Korean War (1950–1953) was a catastrophe that upended every aspect of daily life, especially the food system. Nearly four million people lost their lives and the infrastructure that supported agriculture, industry, and transportation were left in shambles. By August 1951, almost half of all factory buildings and production facilities lay in ruins (Encyclopaedia Britannica). Even rice, the staple of the Korean diet, fell to just 65% of its prewar production levels (Lee). The economic consequences were equally dire. Hyperinflation ran rampant as the government printed more money to finance the war, causing the value of the Korean won (₩) to plummet. The cost of basic goods soared, and the government's attempts at food rationing were hampered by corruption, inefficiency, and sheer lack of supply (Lee; Association for Asian Studies).

After Japan's defeat in World War II, Korea was liberated from 35 years of colonial rule, only to be divided along the 38th parallel. The Soviet Union occupied the north, and the United States the south. The hope for a unified, independent Korea quickly evaporated as the two superpowers established rival governments. North Korea under Kim Il-sung, backed by the Soviets and China, and South Korea under Syngman Rhee, supported by the U.S. (Division of Korea; Pruitt). When North Korea invaded the South in June 1950, the United States led a United Nations coalition to repel the attack. The war's brutality convinced U.S. policymakers that a permanent military presence was essential, not just to deter another invasion, but to anchor America's broader strategy of containing communism in East Asia. When the U.S. military set up bases in Korea, they brought with them vast supply chains built to feed thousands of soldiers. Those systems kept the bases stocked with shelf-stable rations of Spam, hot dogs, Vienna sausages, canned beans, processed cheese, and other foods engineered to survive the rigors of war and long transport (Atlas Obscura; Stilwell).

(Figure 1 - Uijeongbu)

Uijeongbu was a hub of American military activity, with several large bases and a bustling economy built around serving the needs of American troops. The city's proximity to the front lines during the war, and later to the Demilitarized Zone, made it a crossroads of cultures, commerce, and food. Local legend credits the invention of Budae Jjigae to Heo Gi-suk, a North Korean defector who ran a humble street food stand in Uijeongbu.

According to her family, Heo began experimenting with surplus meats from the nearby American base, stir-frying them with kimchi and vegetables. When customers suggested that the dish would be better as a stew, she added broth and gochugaru, creating what would become Budae Jjigae. Her stand, Odeng Sikdang, eventually grew into a full-fledged restaurant and still stands as a historic site for the dish (VisitKorea; Wikipedia).

Today, Uijeongbu has a street named after the iconic dish, lined with dozens of restaurants, each with its own take on the classic. The city even hosts an annual Budae Jjigae festival, where locals and visitors can sample different versions, vote for their favorites, and celebrate the stew's unlikely journey from poverty food to national treasure (Korea Herald; Gyeonggido Korea).

Recipe - Serves 2

Ingredients

- ½ can Spam (about 120g) sliced
- 1 hot dog or sausage, sliced
- 1 cup kimchi, chopped
- ½ medium onion, sliced
- ½ block of tofu (about 200g) cubed
- ½ cup mushrooms (enoki or button)
- 1 pack instant ramen noodles
- 1 cup cabbage or leafy greens
- 2.5 cups broth
- 1 tablespoon gochujang
- 1 teaspoon gochugaru
- 1 tablespoon soy sauce
- 2 stalks of green onion, sliced
- 1 clove garlic, minced

Optional: Baked beans, American cheese, rice cakes, egg, seafood.

The name Budae Jjigae literally translates to "army base stew". Traditionally, budae jjigae is cooked and served in "Ttukbaegi" thick earthenware clay pots that retain heat and keep the stew bubbling throughout the meal. This vessel reflects the communal rhythm of Korean dining, where the pot sits at the center of the table and everyone shares from it.

Styles vary all across Korea, in Uijeongbu, baked beans and cheese emphasize its military heritage. In the south, rice cakes (tteok) and seafood highlight local abundance. And in modern kitchens, instant ramen noodles have become an addition, soaking up the spicy broth and adding texture.

What broth you decide to use can have a great impact on the flavor of the dish. Anchovy stock provides a clean, savory depth. Beef or pork bone broth adds richness. Some even use just water or kimchi juice.

Method

1. **Prepare the broth**: In a medium pot, combine 2.5 cups broth with gochujang, gochugaru, soy sauce, and garlic. Stir until smooth and bring to a gentle boil.
2. **Layer the ingredients**: Arrange Spam, hot dog slices, kimchi, onion, tofu, and mushrooms neatly in the pot. This layering helps each ingredient cook evenly and makes the dish visually appealing.
3. **Simmer for flavor**: Reduce heat and let the stew simmer for about 10–12 minutes. The kimchi will soften, and the meats will season the broth. Taste and adjust seasoning if needed.
4. **Add noodles and greens**: Place the ramen noodles and cabbage into the pot. Cook uncovered for 3–4 minutes until the noodles are tender and the greens wilt.
5. **Finish with toppings**: Add sliced green onion just before serving. If using optional ingredients, add baked beans or rice cakes during simmering, or crack in an egg and let it poach gently. Cheese can be placed on top at the end to melt into the bubbling stew.
6. **Serve hot and Enjoy**: Traditionally, budae jjigae is served in a clay ttukbaegi pot to keep it bubbling at the table. If not available, serve directly in the cooking pot so it stays warm. Place it at the center of the table and scoop portions into bowls.

Kimchi

Although kimchi began as a simple preservation method, today it is an iconic Korean dish served at nearly every meal. Vegetables such as napa cabbage or radish are salted, rinsed, and seasoned with garlic, ginger, salted seafood, and red pepper flakes called gochugaru. They are then packed into jars or crocks, where the mixture ferments as lactic acid bacteria convert sugars into acids, lowering the pH and preventing spoilage (Popular Science; FoodInKorea).

Kimchi's origins were out of necessity, harsh winters and seasonal harvests made preservation essential. Over time, regional and household variations emerged, producing many distinct styles. The communal preparation of kimchi in autumn, known as Kimjang, remains a cultural cornerstone. Families and neighbors gather to make large batches, sharing labor and risk while passing recipes across generations. This practice strengthens social bonds and ties communities to seasonal rhythms. In recognition of its cultural importance, UNESCO inscribed Kimjang on the Intangible Cultural Heritage of Humanity list in 2013, highlighting its role in sustaining community identity and collective memory.

(Figure 2 - Kimchi)

"It forms an essential part of Korean meals, transcending class and regional differences"

- UNESCO

Fermentation is the scientific heart of kimchi. Microbes such as Leuconostoc and Lactobacillus generate acids and flavor compounds that create kimchi's sour and savory profile. Ingredients like gochugaru and jeotgal (salted seafood) add heat and umami, while small changes in salt or temperature produce unique outcomes (Eschner; FoodInKorea). Kimchi also plays a key role in the dish Budae Jjigae, where its acidity cuts through the richness of meats and its fermented depth transforms a medley of ingredients into a hearty stew (Atlas Obscura).

At the table, kimchi anchors the system of shared side dishes called banchan, which are central to the structure of Korean meals. Banchan are small plates placed in the middle of the table for everyone to share, and they vary depending on season, region, and the main dish being served. A typical meal might include several banchan ranging from lightly seasoned vegetables and pickles to braised fish, tofu, or noodles. This variety emphasizes contrast and balance rather than a single dominant dish. Kimchi is the most consistent banchan, appearing across numerous meals and settings. Its acidity and spice cut through the richness of rice, soups, and meats, while its fermented depth ties together the diverse flavors on the table (Korea Tourism Organization).

Its cultural importance extends into modern life. Many Korean households own kimchi refrigerators, designed to maintain ideal fermentation conditions and preserve flavor year-round. These appliances reflect how deeply kimchi is woven into daily routines and how tradition adapts to modern technology

Spam

Spam is a canned pork product first introduced by Hormel Foods in 1937. It was designed to be inexpensive, portable, and shelf-stable, combining pork shoulder, ham, salt, sugar, water, and preservatives into a compact form (Hormel Foods). During World War II Spam became a staple ration for American soldiers, who brought it overseas. Its durability and ease of transport made it a practical military food, but its global spread was shaped by circumstance rather than choice. Surplus cans were distributed or sold in occupied regions, and local populations began to adapt the product to their own cooking (Stilwell).

Spam's role in World War II was immense. The U.S. military purchased millions of pounds. While some grew tired of it, leaders acknowledged its importance. Soviet Premier Nikita Khrushchev later remarked that the Red Army "couldn't have survived without Spam." Britain also relied on Spam during wartime shortages, and Pacific islands saw it introduced through military bases similarly to Korea (Time; BBC). In this way, Spam became a global product not through marketing but through military bases and scarcity of food.

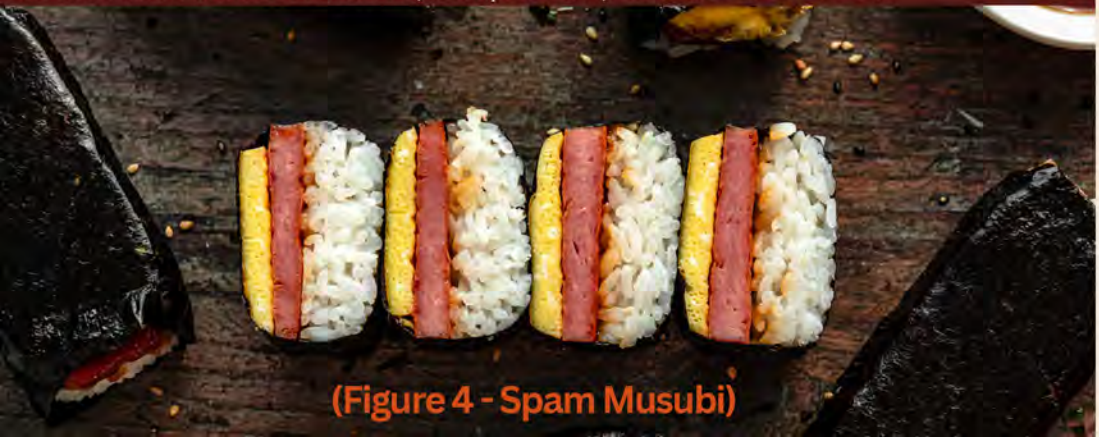
In Korea, Spam took on a new identity after the Korean War. Protein scarcity was severe, and fresh meat was expensive or unavailable. Spam, along with hot dogs and canned beans, became a crucial substitute for animal protein. Its salty richness and fatty texture provided calories and flavor that local diets lacked. Combined with kimchi, gochujang, and vegetables, Spam was incorporated into Budae Jjigae. This adaptation illustrates how imported foods can be localized and re-imagined, transforming a foreign industrial product into a beloved comfort dish (Atlas Obscura).

Beyond Korea, Spam became popular across Asia and the Pacific. In Hawaii, Spam musubi (grilled Spam on rice wrapped with seaweed) emerged during World War II and remains a cultural icon. Hawaiians consume millions of cans annually, the highest per capita in the United States (Hawaii News Now). In Japan, Spam is used in Okinawan dishes such as chanpurū, while in the Philippines it appears in fried rice, noodle dishes, and breakfast plates (Smithsonian Magazine). What began as a product of American industrialization now carries diverse meanings across cultures, often associated with resilience, adaptation, and comfort food.

(Figure 3 - Spam)

"Spam was part of my childhood. Immigrant families didn't always have access to fresh meat, but Spam was affordable, filling, and versatile. My mom fried it with eggs, put it in stews, and made it taste like home. For me, Spam is about resilience, it's about making something out of what you have."

- Roy Choi



(Figure 4 - Spam Musubi)

Works Cited

- Atlas Obscura. "Budae Jjigae." *Gastro Obscura*, Atlas Obscura, https://www.atlasobscura.com/foods/budae-jjigae-army-stew-spam.
- Association for Asian Studies. "An Unpromising Recovery: South Korea's Post-Korean War Economic Development: 1953–1961." *Education About Asia*, https://www.asianstudies.org/publications/eaa/archives/an-unpromising-recovery-south-koreas-post-korean-war-economic-development-1953-1961/.
- BBC. "Spam: The Meat That Helped Win WWII." *BBC News Magazine*, 15 Aug. 2012, https://www.bbc.com/news/magazine-19136727.
- Division of Korea. Wikipedia, *Wikimedia*, https://en.wikipedia.org/wiki/Division_of_Korea.
- Encyclopaedia Britannica. "Korean War." *Encyclopaedia Britannica*, Encyclopaedia Britannica, Inc., 20 Nov. 2025, https://www.britannica.com/event/Korean-War.
- Eschner, Kat. "We Finally Know Which Bacteria Give Kimchi Its Power." *Popular Science*, 17 Apr. 2020, https://www.popsci.com/story/science/kimchi-bacteria-fermentation-ingredients/.
- FoodInKorea. "Lactic Acid Bacteria in Kimchi." *FoodInKorea*, https://www.foodinkorea.org/food/kimchi/lactic-acid-bacteria-in-kimchi/.
- Gyeonggido Korea. "Experience Uijeongbu Budae Jjigae Street, Home of Korea's Comfort Food." *Gyeonggido Korea*, 13 May 2024, https://www.gyeonggido-korea.com/2024/05/experience-uijeongbu-budae-jjigae.html.
- Hawaii News Now. "Spam Musubi: Hawaii's Iconic Snack." *Hawaii News Now*, 2023, https://www.hawaiinewsnow.com/story/3267897/spam-musubi-hawaiis-iconic-snack/.
- Hormel Foods. "Our History: Spam Brand." *Hormel Foods*, https://www.hormelfoods.com/about/our-history/spam-brand/.
- Korea Herald. "Budae Jjigae Festival." *The Korea Herald*, 8 Nov. 2025, https://www.koreaherald.com/article/10611771.
- Korea Times. "Uijeongbu Carries on Culinary Legacy as Birthplace to Korea's Comfort Food, 'Budae Jjigae.'" *The Korea Times*, 14 Nov. 2024, https://www.koreatimes.co.kr/lifestyle/travel-food/20241114/uijeongbu-carries-on-culinary-legacy-as-birthplace-to-koreas-comfort-food-budae-jjigae.
- Korea Tourism Organization. "Korean Food Guide: Banchan." *VisitKorea*, https://english.visitkorea.or.kr/svc/contents/info.do?menuSn=351&vcontsId=10405.
- Lee, Jong Won. "The Impact of the Korean War on the Korean Economy." International Journal of Korean Studies, Sungkyunkwan University, https://ciaotest.cc.columbia.edu/journals/ijoks/v5i1/f_0013337_10833.pdf.
- Pruitt, Sarah. "Why Are North and South Korea Divided?" *History.com*, A&E Television Networks, 9 Feb. 2018, https://www.history.com/articles/north-south-korea-divided-reasons-facts.
- Severson, Kim. "Spam's Pacific Legacy." *Smithsonian Magazine*, 2017, https://www.smithsonianmag.com/arts-culture/spams-pacific-legacy-180963474/.
- Stilwell, Blake. "This Popular Korean Dish Came from the Aftermath of the Korean War." *Military.com*, 7 Mar. 2023, https://www.military.com/history/popular-korean-dish-came-aftermath-of-korean-war.html.
- Time. "Spam: The Meat That Won the War." *Time*, 15 July 2001, http://content.time.com/time/magazine/article/0,9171,1000710,00.html.
- TourHero. "The Ultimate Guide to Uijeongbu: Birthplace of Budae Jjigae." *TourHero Magazine*, 31 Dec. 2020, https://www.tourhero.com/en/magazine/destinations/asia/the-ultimate-guide-to-uijeongbu-birthplace-of-budae-jjigae/.
- UNESCO. "Kimjang, Making and Sharing Kimchi in the Republic of Korea." *Intangible Cultural Heritage Lists, UNESCO*, 2013, https://ich.unesco.org/en/RL/kimjang-making-and-sharing-kimchi-in-the-republic-of-korea-00881.
- VisitKorea. "Uijeongbu Budaejjigae Street (의정부 부대찌개거리)." *VisitKorea, Korea Tourism Organization*, https://english.visitkorea.or.kr/svc/whereToGo/locIntrdn/rgnContentsView.do?vcontsId=93707.

Photo sources

- Cover photo: Budae Jjigae Spicy Soup Typical South Korean Style Hot Pot with Sausage, Tofu, Kimchi, and Ramen. *Shutterstock*, 2023, www.shutterstock.com/image-photo/budae-jjigae-spicy-soup-typical-south-2575777527.
- Figure 1: justmekorea. "Uijeongbu – Where's That?" *Just Me Korea,* 21 Oct. 2017, https://justmekorea.wordpress.com/2017/10/21/uijeongbu-wheres-that/.
- Figure 2: Lee, Sue. Kimchi Recipe. *My Korean Kitchen*, 3 Mar. 2023, https://mykoreankitchen.com/kimchi-recipe/.
- Figure 3: Ms Shi and Mr He. *How to Make Spam at Home | Easy Spam Recipe with Video Steps*. Image of homemade Spam slices. 20 Jan. 2024, https://msshiandmrhe.com/spam/.
- Figure 4: Kwon, Jessica. *Spam Musubi with Egg*. Balance with Jess, 6 May 2022, https://balancewithjess.com/spam-musubi-with-egg/.

Butter Chicken

Quinn Giuricich
V00994173

Es 347

INTRODUCTION

Butter Chicken made by Quinn G

Butter chicken (murgh makhani) is often depicted in restaurants, cookbooks and travel writing as some ancient Punjabi classic that has been lovingly loved by every parent for centuries. This kind of story is easy to sell; that's not true when you are in touch with the historical and ecological records. In practice, butter chicken as we now know it, is a result largely of post-1947 dislocation and colonial crop exchanges. the swift artificial selection of industrial broiler chickens and the agro-ecological conditions of Punjab and Delhi are both present. The dish is not "timeless" or representative of an unbroken link in Punjabi home cooking. Rather, it embodies the adaptation strategies of refugees, the outcomes of modern animal/plant breeding, and international circulation of ingredients unlikely to have existed in pre-colonial Punjabi kitchens (Achaya, 1998; Havenstein et al., 2003; Nunn & Qian, 2010; Tixier-Boichard et al., 2011).

butter chicken uses two key ingredients as a lens: chicken and tomato. The geographic origins, biological transformations, and incorporation into Punjabi and Delhi food systems provide a rather grander story than the well-known myth of fixed "tradition." At the same time, there is a counterargument in popular discourse: That since it's cooked with tandoori chicken, ghee, fenugreek, and dairy, butter chicken exhibits an unbroken cultural continuity. But this counterargument seems weak once we consider the evolutionary changes in poultry genetics, the colonial introduction, hybridization of tomatoes, and the socio-political trauma of the 1947 Partition. Butter chicken is a hybrid modern cuisine, not the frozen monument of rural Punjab. Far from being devaluing the dish, this insight enhances it. It shows how food becomes a place of reconstruction, migration, biological innovation. It illustrates how dishes grow in reaction to ecological opportunity and historical pressure and in other words, not in isolation from it. Butter chicken is an object lesson in how global agriculture combines with culture to create something that seems timeless.

Geographic Origins of the Two Main Ingredients

Chicken:

The domesticated chickens used today in butter chicken are from the red junglefowl (Gallus gallus), native to South and Southeast Asia. Genetic and archaeological evidence suggests chickens were domesticated thousands of years ago throughout this region (Tixier-Boichard et al., 2011). In this sense, chicken in Punjabi cuisine is historically appropriate. But the chicken used for modern butter chicken is not the same type of animal. Starting in the 1940s, American and European breeding programs produced broiler lineages that grew a great deal faster and bigger than conventional South Asian chickens. And the Cobb, Ross and Arbor Acres broiler lines, now used practically everywhere in the world, were deliberately targeted for high breast yield, quick growth and economic efficiency (Havenstein et al., 2003). However, weren't bred there. India's poultry sector brought those breeds into the country in the 1960s–1980s, and the "Punjabi chicken" on the menu now is genetically influenced by global agribusiness, not domestication locally. That's an important point, as butter chicken hinges on texture: the tender, moist chicken pieces in the dish are a matter of artificial selection. Older, free-range birds in pre-industrial Punjab had stiffer muscle fibers and much lower moisture retention. Butter Chicken would lack as much softness from pre-20th-century chickens. The characteristics of the modern broiler, faster muscle growth, changing balance of hydration, reduced connective tissue, arise for decades out of deliberate breeding, not an intentional culinary habit (Havenstein et al., 2003).

Tomato:

Andean Fruit transformed into a colonial migrant and Indian hybrid. The tomato: Solanum lycopersicum (Andean; native to the Andes) was domesticated in Mesoamerica, arrived in Europe following the Columbian Exchange and was transported to India via Portuguese maritime transport (Nunn & Qian, 2010). Tomatoes did not become widely used in North India until the 19th and 20th centuries, when colonial trade networks and commercial agriculture led to greater availability. The original defining characteristic of butter chicken is silky, tangy, reddish-orange makhani sauce and is entirely dependent on tomatoes. But throughout Punjabi history, tomatoes were few, if any, in numbers. Its widespread availability is less a reflection of ancient Punjabi cooking than of a global shift in agricultural production. In addition, today's tomatoes are hybrids bred during the 20th century. The Indian varieties of Pusa Hybrid-1 and Arka Rakshak were cultivated northwards with a focus on the presence of large soluble solids, stable acidity, thick flesh and elevated lycopene (Bai., Lindhout (2007). These hybrid types of tomatoes create thicker dense gravies and are more resistant to environmental change and have a brighter color than other varieties. One of the two indispensable ingredients in butter chicken is an ecological refugee, a genetically transformed hybrid that has been reformed long before it became "traditional".

Evolutionary Transitions Through Artificial Selection

Modern Broilers:

Today's broiler chickens display the consequences of artificial selection speeding up biological change. Havenstein et al. (2003) reported that under the same conditions, broilers raised in 2001 grew over four times quicker than broilers raised in 1957. These birds also exhibited dramatically different body composition, fat distribution, skeletal density and feed conversion. These engineered characteristics impact butter chicken

Impacts of Chicken

- Tenderness: Larger muscle fibers, lower connective tissue mean greater bite.
- Marination: Lower collagen levels help yogurt-based marinades sink more deeply.
- Consistency: Uniform carcasses mean that tandoors cook with a certain pattern.
- Moisture retention: Industrial broilers simply don't get dry the way traditional birds do.

It is not an understatement to say in the absence of industrial broilers; butter chicken would be an entirely different dish.

Hybrid Tomatoes:

In India, tomatoes had their own evolutionary evolution. Breeders chose to promote characteristic traits for restaurant gravies: high solids, disease resistance, a long shelf-life, a consistent acid-sugar profile, thick (Bai., Lindhout (2007). Those hybrids easily emulsify with butter and cream, giving them their iconic velvety makhani texture. Hybrid tomatoes give butter chicken an appearance of butter chicken. They deliver the color, sweetness, tang and body that diners expect. Earlier local tomatoes, or heirloom varieties, would result in a looser, less-vivid gravy. Both chicken and tomato demonstrate how modern ingredients remake supposedly "traditional" dishes.

The Biogeophysical Foundations of Butter Chicken:

Punjab's terrain, the soil, water, dairying and other local ecologies present in its landscapes, supplies the environmental foundation for butter chicken. Punjab's Indo-Gangetic alluvial plains are among the most fertile on Earth. Deep soils, irrigation canals and tube-well systems (facilitated by the Green Revolution) make for high-yield agriculture in this region (Achaya, 1998). This productivity supports: large-scale tomato cultivation, high-fat buffalo dairy systems, wheat for tandoori breads, and fodder for poultry feed. Butter chicken is feasible in part because Punjab's ecology can provide the dish's essential macronutrients reliably and affordably.

Evolutionary Transitions Through Artificial Selection

Dairy:

The Heart of Makhani. Buffalo milk in Punjab is higher in fat compared to cow milk and is therefore suitable for rich butter, ghee and cream, which play a crucial role in makhani gravies (Achaya, 1998). The cultural preference for dairy-flavored meals dovetails with the ecological availability of fat-dense milk. Punjabi food culture has always made food a celebration. Butter chicken, heavily cream-flavored, lends itself well to this sense of abundance

Tandoor Ecosystems:

A cooking tech tailored to locality. The tandoor is a high-heat oven made from clay that is common in Punjabi and North Indian cuisine. Long before gas and electric ovens, tandoors used local fuels, wood, coal, and dried dung. Butter chicken had begun relying heavily on leftover tandoori chicken (Ray, K. (2018), an offshoot of restaurants whose tandoors never stopped serving. If it wasn't for the ecological-technological setup, the dish would not have come into being as we know it today. It's part of the Cultural Traditions of Partition, Refugee Innovation, and the Hospitality Context.

Partition and the Culinary Economy of Scarcity:

The turning point in butter chicken was 1947. Millions of Punjabis, including the Hindu refugee owners of the Moti Mahal in Delhi, were displaced in an era of partition, reportedly responsible for the introduction of murgh makhani on that site (Ray, K. (2018). In a city stretched by migration, scarcity and erratic food supply, these cooks needed methods to reuse dried tandoori chicken leftovers. They came up with an innovative solution: simmering the dried meat in a tomato-butter-cream base to rehydrate it. This strategy capitalized on Punjabi dairy culture and Delhi's rise in tomatoes. The result was not a home-kitchen tradition but a restaurant-centered refugee invention, built on conditions of crisis and need.

The look of richness:

the hospitality conventions in Punjabi accentuate richness, fat, and visible abundance. Presented with naan, cream and butter, and murgh makhani fits this cultural iconography (Achaya, 1998). Its success is as much about the flavors of "comfort", "generosity" and "celebration", as it is about meeting the standards that come with those tastes. That aesthetic aspect helps to explain why a dish that emerges from leftovers has grown globally: it speaks to a new type of culinary optimism in the face of displacement and upheaval

Variants and global adaptations

UK:

Balti & Curry-House Butter Chicken British curry houses revolutionized butter chicken by making it bright, thinner and more tomato-forward, due in part to the use of pre-made base gravies as well as British tomato varieties. So, these versions are a reflection of industrial efficiency and diasporic creativity more than Punjabi tradition.

Uk- Butter Chicken

https://www.bbcgoodfood.com/

Canada:

Dairy-Rich Adaptations. Canada's plentiful butter and cream supply produce a more substantial butter chicken than the Delhi original did. Many Canadian versions have double the cream of most Delhi recipes. This adaptation shows how diasporic cuisines are shaped by local agricultural conditions.

East Africa:

Coconut and Coastal influences. Indian communities in Kenya and Tanzania occasionally use coconut milk, a locally sourced ingredient that elevates the dish's Swahili flavor profiles but sustains the tomato-butter matrix. Plant-Based Global Versions. Vegan butter chicken with tofu, seitan, soy curls or jackfruit, is a perfect example of how the makhani gravy has morphed into a portable flavor technique. Most diners now think of "butter chicken flavor" as the gravy itself, not the chicken. Together, these variants undercut arguments that a stable, "authentic" butter chicken exists.

Quinn's Recipee

Ingredients

For the chicken marinade:

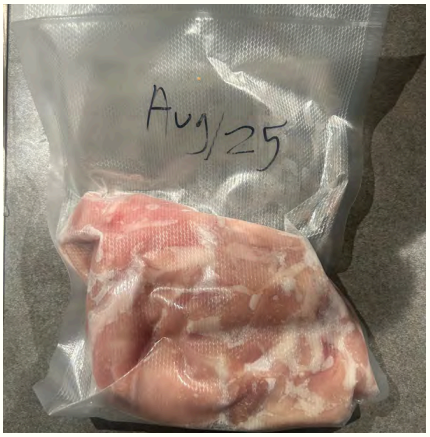
- 800 g boneless chicken thighs
- 4 cup Butter chicken sauce
- 1 tbsp ginger-garlic paste
- 1 tsp Kashmiri chili powder
- 1 tsp garam masala
- 1 tbsp lemon juice
- 1 large onion, sliced
- 1 head cauliflower
- 1 carrot
- 5 mushrooms

*Q*uinn G's Vegetables

Method:

Marinate chicken for 30–60 minutes. Cook on cast iron for 30 minutes.
In a crock pot, heat butter chicken sauce and vegetables, sauté until translucent.
Add all ingredients and simmer until broken down. Cook in crock pot for 3 hours on high.
Stir every hour.

Butter chicken sauce used in recipe



Chicken used in recipe

Results and conclusion

Butter chicken is more than a favourite at the restaurant, it is a culinary record of ecological bounty, migration, artificial selection and diaspora. Its chicken is of South Asian ancestry with industrial biology. Packaged masalas standardized taste (Ray, K. (2018). Cold chain logistics allowed for mass replication and global restaurant franchising. Hybrid tomato varieties changed the color, sweetness and acidity of gravies (Bai., Lindhout (2007). Modern broilers altered meat tenderness (Havenstein et al., 2003). Health trends led to low-fat and dairy-free versions. A counterargument is that these changes “dilute” authenticity. But since butter chicken itself emerged from adaptation, scarcity and technological improvisation, a static mark of authenticity is simply not true historically. The dish has always existed in fluidity.

Quinn G’s Finished product of Butter chicken

Refrences

Havenstein, G. B., Ferket, P. R., & Qureshi, M. A. (2003). Carcass composition and yield of 1957 versus 2001 broilers when fed representative 1957 and 2001 broiler diets. Poultry science, 82(10), 1509-1518.

https://www.sciencedirect.com/science/article/pii/S003257911943928X/pdf?md5=81946518adbcc726042a7d0b1fbf8625&pid=1-s2.0-S003257911943928X-main.pdf

Tixier-Boichard, M., Bed'Hom, B., & Rognon, X. (2011). Chicken domestication: from archeology to genomics. Comptes Rendus. Biologies, 334(3), 197-204.

https://comptes-rendus.academie-sciences.fr/biologies/articles/en/10.1016/j.crvi.2010.12.012/

Nunn, N., & Qian, N. (2010). The Columbian exchange: A history of disease, food, and ideas. Journal of Economic Perspectives, 24(2), 163-188.

https://pubs.aeaweb.org/doi/pdf/10.1257/jep.24.2.163

Achaya, K. T. (1998). Indian food: A historical companion. Oxford University Press.

https://archive.org/details/indianfoodhistor0000acha

Charcoal, Clay, and Cured Sausage:
A Cantonese Claypot Rice Story

In the winter evenings of Guangdong, as the sun begins to set, the small clay pots still radiate a warm glow. I remember waiting at a tiny stall near my home, watching the cook line up blackened clay pots over a row of charcoal braziers. First, the soaked rice sizzles as it gently falls onto the scalding hot clay pot, then the rounds of glossy lap cheong laid carefully on top, the fat beginning to melt and seep into the rice grains. After a short wait, by the time that the lid was lifted and a splash of sauce was poured around the edge, the whole restaurant smelled of smoke, toasted rice, and sweet meat. One pot for one person: dinner.

Figure 1

At first glance, Cantonese clay pot rice seems to be the simplest home-style dish, requiring only rice, sausage, and perhaps a few slices of vegetables. However, this small, sizzling clay pot holds a rich history. The white rice at the bottom carries thousands of years of paddy agriculture history in southern China. The sweet and winey lap cheong on the top are closely linked to winter preservation practices, family labour and the rhythms of lunar calendar. The claypot and charcoal symbolize a unique urban street culture of late-night stalls and working-class diners, even though most restaurants or stalls have already replaced charcoal with gas and induction stoves.

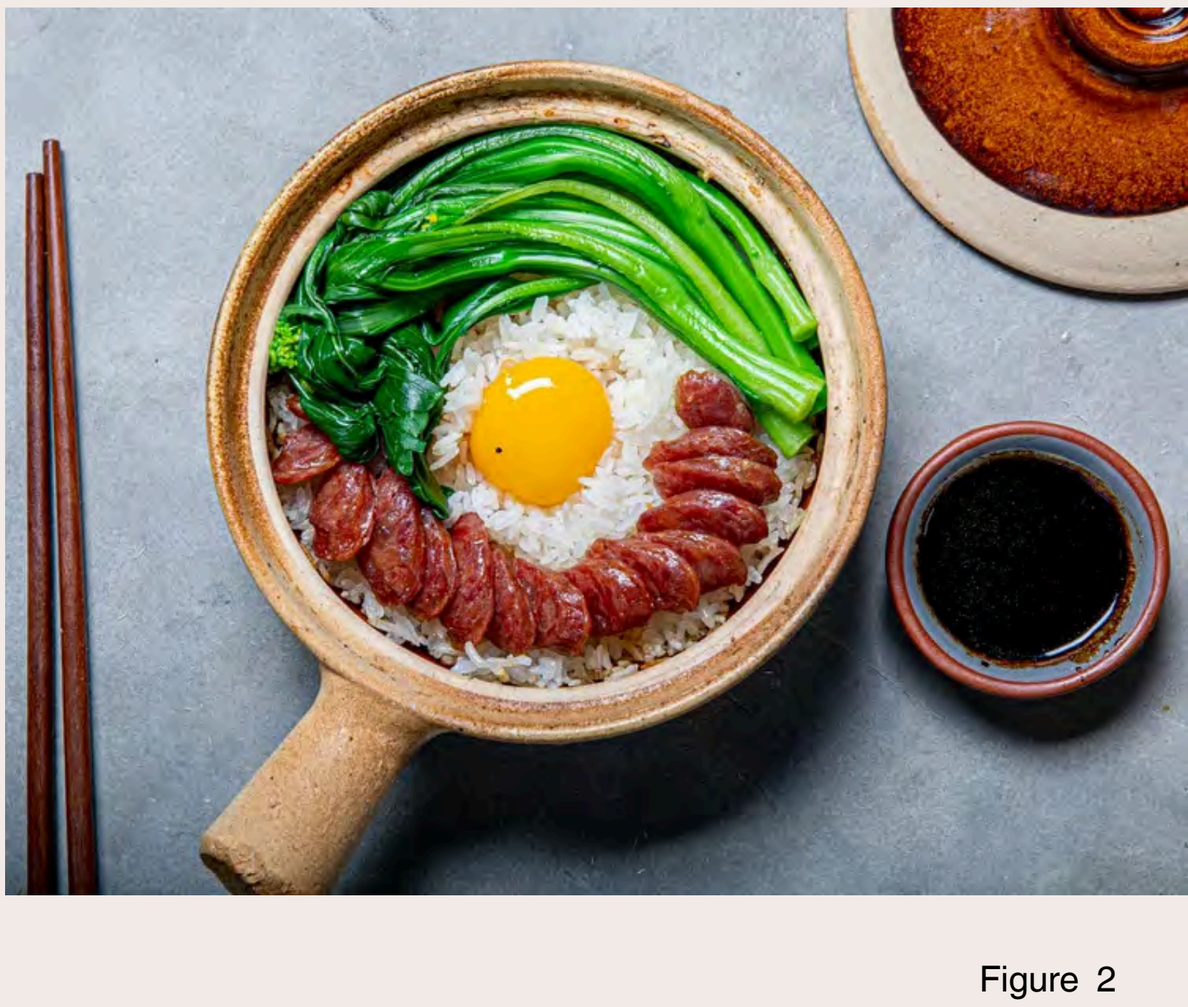


Figure 2

This article will take you through the two main ingredients of classic lap cheong claypot rice: rice and Cantonese cured sausage. It explores how the local climate and soil made rice central to the region's diet, and how seasonal food preservation and later industrial processing transformed pork into cured sausage. In this way, we can understand how a simple meal can condense local customs, technology, and history into a single sizzle clay pot.

Rice: From Pearl River Delta Paddies to the Bottom of Claypot

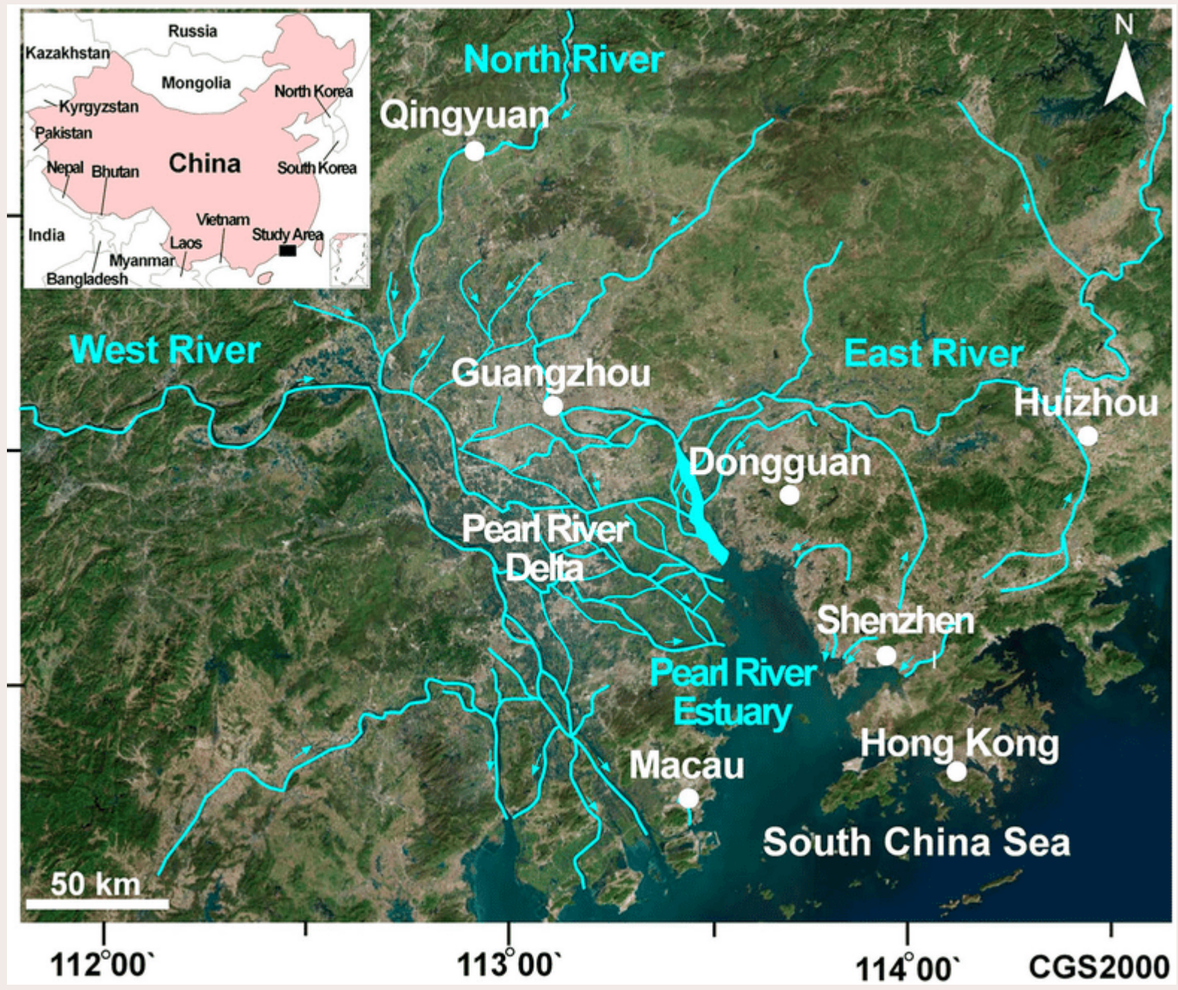


Figure 3

Rice is the one of most important part of Chinese cuisine, without rice you cannot make claypot rice at all. As one of the most important staple foods on the planet, rice is widely cultivated around the world, and its cultivation has a long and complex history. Current archaeological and genetic research indicates that Asian rice (Oryza sativa) was domesticated in the Yangtze River basin of China approximately 9,000 years ago (Zhang, et al, 2012), and early farmers gradually selected plants whose grains stayed on the stalk instead of shattering and falling into the mud (Zheng, et al, 2016). This case can be seen as one of the earliest "engineering projects" for food that would feed most of the world's population in the future. From there, its cultivation techniques began to spread southward. In fact, there was no rice cultivation in southern China in the early days, and the local communities did not have rice cultivation techniques as well. According to archaeologist Zhang Chi's research, rice cultivation in the region actually began around 3,000 years ago (2010). Before that, survival and diet in this region depended primarily on gathering and hunting. A more recent radiocarbon study conducted near Guangdong has provided more accurate data, suggesting that widespread and intensive rice farming in the Pearl River basin may not have emerged until the late Holocene, approximately 2,500 years ago (Yang, et al, 2016).

Today, the Pearl River Delta resembles a world of elevated highways and skyscrapers, but the core of its food culture still relies on the natural conditions that attracted early farmers to the area. The humid and warm climate here greatly facilitated early rice cultivation. The Pearl River Delta is located in a humid subtropical climate zone, with hot and humid summers and warm winters. The Pearl River Delta is located in a humid subtropical climate zone, with hot and humid summers and warm winters (Mishachi, 2017). The annual rainfall is as high as 1700 mm, mainly concentrated in the summer (Mishachi, 2017). In addition, the main landforms in the region include wetlands, estuaries, and plains (Mishachi, 2017) Geographical location, climate, and thousands of years of history have made this region one of the most diverse agricultural areas in China.

Figure 4

Agricultural scientists describe modern rice cultivation in the Pearl River Delta as a double-cropping rice system. Instead of once a year, the flat plains, warm weather, and humid climate combine to make it possible to grow rice twice a year in this region. A study conducted in Guangdong Province, based on long-term and multi-location data, shows that double-cropping rice can yield approximately 7-15 tons per hectare in the region, although the actual yield may be slightly lower due to various factors. (Guo, Wu & Bryant, 2019). The actual data may be difficult to understand, but you can think of it this way: the same rice paddy that helped me enjoy my claypot rice in winter may have been harvested earlier in the year under different seasonal conditions and labor arrangements.

Clearly, the type of rice served in claypots today is quite different from that of 3,000 years ago. Modern Cantonese chefs and consumers rely primarily on improved varieties from the 20th century, as well as varieties developed using hybrid rice technology (IRRI, n.d.). We cannot be certain whether their taste and texture have changed significantly compared to many years ago, but we can be sure that production has increased significantly to meet the growing population. These grains of rice may look identical and unremarkable, but behind them there are many decisions: which varieties to plant, how much fertiliser to use, how to manage water in a monsoon climate and how to time two harvests around typhoons, labour shortages and market prices… A small handful of rice is washed and soaked in the kitchen and finally steamed until it is crispy and fragrant. It is not only a daily dinner, but also the final result of thousands of years of co-evolution between humans and rice.

Figure 5

Lap Cheong: Sweet and Smoky Winter Preservaton

In my opinion, lap cheong is probably one of the most important parts for delicious claypot rice. Without the savory oils of the lap cheong seeping into the gaps between the grains, clay pot rice is merely a steaming bowl of blandness. Lap Cheong is highly recognizable: the meat is firm, slightly translucent, marbled with fat, and tinted with a glossy mahogany red color. Compared to hot dogs or breakfast sausages in North America, it may look more like dried Italian pepperoni. The most common Cantonese lap cheong is made with pork and lard, seasoned thoroughly with salt, sugar, cooking wine and soy sauce, then stuffed into sausage casings and air-dried until it can be stored at room temperature (Lee, 2024). Lap Cheong is also a staple in Cantonese restaurants and in the kitchens of southern Chinese families.

Sausages are a food found worldwide with a long history, but Chinese sausage has a unique Chinese history. According to records, as early as the Northern and Southern Dynasties period (4th to 6th centuries AD), there were records of cured meat products in China, and one of the earliest written descriptions of sausage making appears in the agricultural work *Qimin Yaoshu* from the Northern Wei Dynasty (ZhengDa Xiansheng, 2019). Over time, different regions of China have developed their own versions of Lap Cheong. For example, in Sichuan in central China, the sausage may be spicier (Lee, 2024); while the sausage produced in Harbin, a northern city close to Europe, is more European in style.

In the days before refrigerators were common, hanging skewers of cured sausages under the eaves in the dry winter air was a practical way for families to preserve protein. In the traditional Chinese calendar, after the Minor Snow solar term, temperatures drop sharply, and the air becomes dry; this period is considered "the best time to start making preserved meat" (Chinadaily, 2016). At the same time, with the Spring Festival approaching, cured meats have become a visual symbol of the season. I remember when I went to the countryside, people would hang red chili peppers and cured meats outside their houses.

Figure 6

The modern definition of Lap Cheong still follows the traditional approach. The Macao government describes it as a traditional Chinese delicacy, made by curing pork or duck with salt, sugar, and wine, and then air-drying it for several days (Government of Macao, 2011). lap cheong is one member of a larger family that also includes preserved duck, preserved pork belly and other cured meats that together make up winter “lap-mei platters” and topping combinations for rice. The sausages in claypot rice are not just a flavouring: they stand in for a whole seasonal cycle of slaughter, curing and anticipation. At the same time, just as rice cultivation has changed from once a year to twice a year, the way lap cheong is made is also changing. Research by the Hong Kong Centre for Food Safety indicates that modern producers now rely on controlled hot-air drying rooms to improve efficiency and consistency (HKSAR, 2001). Although the basic materials remain unchanged, the drying process is now completely machine-controlled instead of relying on the weather, which not only speeds up the production of lap cheong but also ensures stability. In addition, industrial production has changed the chemistry of each lap cheong. Macau’s Food Safety Information shows that producers typically add nitrates and nitrites during curing, not just for the characteristic pinkish-red color and flavor but also to inhibit dangerous bacteria.

In short, lap cheong plays two roles in the changing times. They embody the traditional logic of winter preservation: utilizing salt, sugar, and air drying to transform a small amount of pork into a rich seasoning for cooking more delicious dishes. They are also a product of the modern industrialized food system: pork from large farms is ground, additives are added, it is dried in factories, and then vacuum-packed for sale.

Figure 7

Figure 8

Variations and Global Journeys of Claypot Rice

There are many different versions of the origin of claypot rice. Sheng Hui, in her "Cantonese Cuisine Notes” (Yue Cai Ji) states that it originated from the "five-geng rice" of Shunde, which was a food eaten by local women after childbirth (Wu, 2023). It got its name from the ancient Chinese term for time, "five-geng.", which means before dawn. Today, even in its place of origin, Cantonese-speaking regions, there is no single, standardized version of claypot rice. Claypot rice can be considered a "category" rather than a single dish, allowing people to freely customize their meal with various toppings according to their own preferences. For example, Kwan Kee Clay Pot Rice in Hong Kong offers not only the classic lap cheong, but also duck, eel, and even frog (Kong, 2022). On Chinese social media, I've also seen various versions of claypot rice with different combinations, fermented black beans with spare-ribs, pork belly, corn, and so on. But in my opinion, lap cheong, mushrooms, eggs, perhaps with some greens and a drizzle of soy sauce, is the most basic yet classic version.

Outside of southern China, claypot rice has also developed new regional characteristics based on local culture and customs. For example, Malaysia and Singapore each have their own versions of Claypot Chicken Rice. In addition to lap cheong, the ingredients include chicken and mushrooms, and the seasonings are adjusted to local tastes. These versions retain the basic elements of "claypot rice," such as the crispy rice on the bottom and claypot, but reduce the use of preserved meat, using more fresh marinated chicken and a richer sauce.

As claypot rice crossed the Pacific Ocean to Canada, the ingredients had to adapt to border controls and the new market, so lap cheong sold in Canada is usually produced locally. Companies like Wing Wing, whose history dates back to the early 20th century in Vancouver's Chinatown, promote "traditional Chinese sausages" made with centuries-old family recipe to Canadian customers (Wing Wing, n.d.) For Canadians, this is an opportunity to try exotic foods. Meanwhile, on Chinese forums and chat apps, people are hotly debating which local brands taste "most like home."

Figure 9

Figure 10

Clay pot rice is often described as a simple, home-style dish, a quick meal on a busy evening. At the same time, it's also a condensed picture of the relationship between humanity and the environment: how people learned to cultivate the land in the monsoon delta, how they preserved meat in the cold season, how they industrialized these skills, and how they eventually spread across oceans. Even the most ordinary dinner is a way for us to understand history. In Victoria, the tools I have are different. I soak supermarket rice that may be grown in North America or Southeast Asia, slice Canadian-made sausages that imitate the flavour of Guangdong winters, and coax a “claypot” effect out of an electric stove and a heavy metal pot. The dish that emerges is not quite the same as the ones from charcoal alleys in Guangzhou, but it is close enough that, for a moment, the kitchen smells like home.

Lap Cheong Claypot Rice Recipe

(Serves 1–2)

Time:45–60 minutes (including soaking)

Ingredients

Base

100g Jasmine rice, rinsed

1tsp neutral (lard optional for best flavor)

Topping

1-2 Cantonese lap cheong, sliced on the diagonal

A small handful of leafy greens

(gai lan, choi sum, or baby bok choy)

Egg

Few slices of ginger (optional)

Sauce

1 tsp soy sauce

1 tsp oyster sause

1 tsp dark soy sauce

1 tsp sesame oil

1/2 tsp sugar

1 1/2 tsp water

Equipment

Small claypot with lid

Small heavy pot with a thick bottom and tight lid

(for readers without a claypot)

Method

1. Rinse and soak the rice

Rinse the rice in cold water until the water runs mostly clear. Drain, then soak in fresh water for 20–30 minutes. This helps the grains cook evenly and later form a nicer crust.

2. Prepare toppings

Slice the lap cheong on the diagonal into thin coins. Wash and cut or tear the leaves off the greens.

3. Start the rice in the pot

Place the claypot on low heat and add the oil, tilting to coat the bottom. Drain the soaked rice, then add it to the pot with 150 ml fresh water. Cover the pot and turn the heat to high. Reduce to medium heat until you see steam escaping from the lid and hear gentle bubbling.

4. Blanch the greens and prepare the sauce.

While the rice is cooking, use a separate pot to blanch the greens. Also, mix all the sauce ingredients in a small bowl until the sugar dissolves and set aside.

5. Add lap cheong

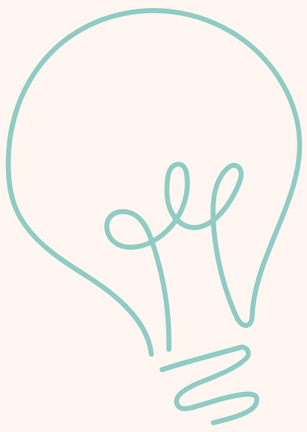
Once most of the water has been absorbed and small “craters” appear on the rice surface, lift the lid quickly. Lay the lap cheong slices evenly over the rice, scatter in ginger slices if using. Cover again. (If you do not want to blanch the greens, add it to the pot at this step)

6. Steam and form the crust

Turn the heat to low and cook for another 8–10 minutes so the sausage fat renders down into the rice. Crack the egg on top of the rice. Then pour the sauce around the edge of the pot (not directly in the center) so it seeps down the sides and Cover and cook 3–5 more minutes, turning the heat up just slightly at the end if you want more scorched crust, but watch carefully to avoid burning.

7. Rest and serve

Turn off the heat and let the pot sit, covered, for 5 minutes. Bring the whole claypot to the table, lift the lid, and gently stir from the sides and bottom to mix the rice with the rendered sausage fat and sauce. You can now eat with a bowl or even use the claypot. Enjoy!



Tips

For more crust, use slightly less water and a bit more time on low heat at the end; for less, use slightly more water and keep the heat gentler.

Too hard to find a claypot? Use a small but heavy metal pot with a tight lid. The method is the same; just go extra gentle with the heat at the end to avoid burning.

There is also lazy version. You can try using a rice cooker to cook the dish.

References

- Chi, Z., & Hung, H. (2010). The emergence of agriculture in Southern China. Antiquity, 84(323), 11–25. https://doi.org/10.1017/s0003598x00099737

- Chinadaily. (2016, November 22). 24 solar terms: 7 things you may not know about minor snow. Chinadaily. https://www.chinadaily.com.cn/culture/2016-11/22/content_18956195_5.htm#Contentp

- China and IRRI. International Rice Research Institute (IRRI). (n.d.). https://web.archive.org/web/20210523111257/https://www.irri.org/where-we-work/countries/china

- Government of Macau. (2011, November 25). Cured Meat and Food Safety. Food Safety Information - Food Safety Fact Sheets. https://www.iam.gov.mo/foodsafety/e/factsheetmenu/detail/36188432-82a7-4b4b-870c-814d75dc5437

- Guo, Y., Wu, W., & Bryant, C. R. (2019). Quantifying spatio-temporal patterns of rice yield gaps in double-cropping systems: A case study in Pearl River Delta, China. Sustainability, 11(5), 1394. https://doi.org/10.3390/su11051394

- HKSAR Food and Environmental Hygiene Department. (2001, December 16). Meat Curing in Chinese cuisine. Food and Environmental Hygiene Department HKSAR. https://www.cfs.gov.hk/english/programme/programme_rafs/programme_rafs_fa_01_03_report.html

- Kong, M. (2022a, November 21). Michelin-starred Claypot Rice: A sizzling story of Golden Crispiness. MICHELIN Guide. https://guide.michelin.com/hk/en/article/dining-in/hong-kong-michelin-starred-claypot-rice

- Lee, F. (2024, February 23). What is lap Cheong and how do you cook with it?. Food Republic. https://www.foodrepublic.com/1513425/what-is-lap-cheong-chinese-sausage/

- Misachi, J. (2017, October 25). Where is the Pearl River Delta?. WorldAtlas. https://www.worldatlas.com/articles/where-is-the-pearl-river-delta.html

- Weng, Q. (2007). A historical perspective of river basin management in the Pearl River Delta of China. Journal of Environmental Management, 85(4), 1048–1062. https://doi.org/10.1016/j.jenvman.2006.11.008

- Wu, G. (2023, November 21). 煲仔饭的身世 (The origins of claypot rice). 羊城晚报 (Yangcheng Evening News). https://ep.ycwb.com/epaper/ycwb/html/2023-11/21/content_10_614825.htm

- Wing Wing Co. Ltd. (n.d.). Wing Wing Products. Wing Wing Co. Ltd. https://www.wing-wing.com/products.php?lang=sc

- Yang, X., Wang, W., Zhuang, Y., Li, Z., Ma, Z., Ma, Y., Cui, Y., Wei, J., & Fuller, D. Q. (2016). New radiocarbon evidence on early rice consumption and farming in South China. The Holocene, 27(7), 1045–1051. https://doi.org/10.1177/0959683616678465

- Zhang, J., Lu, H., Gu, W., Wu, N., Zhou, K., Hu, Y., Xin, Y., & Wang, C. (2012). Early mixed farming of millet and rice 7800 years ago in the Middle Yellow River region, China. PLoS ONE, 7(12). https://doi.org/10.1371/journal.pone.0052146

- Zheng, Y., Crawford, G. W., Jiang, L., & Chen, X. (2016). Rice domestication revealed by reduced shattering of archaeological rice from the lower Yangtze Valley. Scientific Reports, 6(1). https://doi.org/10.1038/srep28136

- Zhengda Xiansheng. (2019, March 27). The history and origin of Cantonese sausage. sohu.com. https://www.sohu.com/a/304044761_120101487

- Figure 1 : https://www.57lvyou.com/110921668.html
- Figure 2 : https://www.seriouseats.com/cantonese-clay-pot-rice-with-chinese-sausage-recipe-7509523
- Figure 3 : https://www.researchgate.net/figure/Satellite-image-CNES-AIRBUS-2017-of-the-Pearl-River-Delta-Guangdong-Province-southern_fig1_341366043
- Figure 4 : https://www.alamy.com/240217-guangzhou-feb-17-2024-xinhua-an-aerial-drone-photo-taken-on-july-10-2023-shows-an-agricultural-park-in-jiangmen-south-chinas-guangdong-province-the-guangdong-hong-kong-macao-greater-bay-area-a-city-cluster-is-one-of-the-most-open-areas-in-china-with-economic-vitality-the-greater-bay-area-is-composed-of-nine-cities-in-guangdong-province-including-guangzhou-shenzhen-zhuhai-foshan-huizhou-dongguan-zhongshan-jiangmen-and-zhaoqing-and-two-special-administrative-regions-of-hong-kong-and-macao-photo-by-zhou-huadongxinhua-image596807535.html
- Figure 5 : https://www.foodrepublic.com/1513425/what-is-lap-cheong-chinese-sausage/
- Figure 6 : https://www.foodrepublic.com/1513425/what-is-lap-cheong-chinese-sausage/
- Figure 7 : https://www.amazon.com.au/Wing-Chinese-Style-Pork-Sausage/dp/B09V4C8D3P
- Figure 8 : https://www.tjinstoko.eu/nl/blogs/blog/classic-hong-kong-style-claypot-rice/
- Figure 9 : https://tarasmulticulturaltable.com/claypot-chicken-rice/
- Figure 10 : https://discover.hubpages.com/travel/Vancouver-The-ultimate-insiders-gourmet-tour

MISO SOUP

Meet Miso

Initially miso paste came over from China to Japan in the 6th century. It wasn't until the paste was added into a dashi broth that miso soup came to be. Initially it was treated as a luxury food and was a meal that fueled Samurais during the Kamakura period. The instant paste made it ideal for a commander's meal, being quickly and readily prepared [9]. Many associate Miso soup to being a foundation of Japanese cuisine and although this is due to its widespread consumption among the Japanese, it is presumed that over 75% of people in Japan have miso at least once a day [9]. It can also be connected to the fact that depending on where you are the miso may take on different styles that reflect the local environment and/or terrain. Miso soup holds a central place in the practice of Washoku, which is the emphasis of fresh seasonal and nutritionally balanced ways of eating and or serving food in Japan. Washoku was recognized by UNESCO's Intangible Cultural Heritage status in 2013, as the practice respects nature and sustainable resource use as a reflection of the connectivity between Japanese culture and the four seasons (Kusumoto et al., 2021). Here miso soup serves as one of the most central fermented seasonings of Washoku (Kusumoto et al., 2021).

On a Personal Note

In my household we were big fans of soup during the cold winter months and a key staple soup mom often used to fill our stomachs between getting home from school and dinner was Miso soup. She admits there wasn't much thought put behind it other than it was quick and relatively easy to make, easily adaptable to whatever she had in the fridge or whatever vegetables were in season and she felt like was a good healthy option. It also didnt hurt that at the time my siblings and I were HUGE fans of the movie Kung-Fu Panda and were convinved that our mother had not only discovered the secrete ingreditent to the special soup, but we were also convinved that this soup (so long as it contained Udon Noodles) would give us the powers of a Kung-Fu master.

Variety of Miso

Miso soup varies greatly across the world; this can be tied to the wide variety seen even within the different types of miso paste, as well as different ways to use miso soup, although most often when ordered alongside sushi in North America it comes with a classic combination of tofu, seaweed, and green onions. There are as many as fifty-four variations of Miso soup that can be found in the northern province of Niigata [5]. Due to its long standing cultivation in Japan, miso varies greatly from region to region, each with its own unique product based on local ingredients and climate [6]. Which produces a wide range due to Japans complex and diverse geography, as it is a highly mountainous country. Various misos are named directly after a local name [9]

GEOGRAPHIC ORIGIN of MISO PASTE

Miso paste initially used in China, as a soybean paste called jiang, was used as a fermented preservative and form of currency or even gifted amongst the elite as it was made with experienced ingredients at the time. Typically used to preserve meat and vegetables for prolonged periods of time. Miso was then introduced and widespread throughout Japan by Buddhist Priests [15]. At this point Miso consisted of crushed cooked soybeans, then letting them sit in wooden or ceramic containers to ferment naturally [1]. At this stage miso had yet to be used as the base of a soup, like we see it used today, but rather was consumed as a paste alongside plain rice [1]. "Miso" first appeared in Japanese literature in the Nihon Sandai Jitsuroku, during the Heian Period, known in literature as the "Age of the Gods" (794–1185 AD) [2]. The consumption of miso transitioned to being that of something for nobles to a more commonly consumed meal when the increase of soybean cultivation grew during the Muromachi Period (1336–1573 AD); this transition is linked to soybean farmers making their own miso for personal consumption and are responsible for miso becoming used as a seasoning for dishes rather than a stand-alone element of a meal [1]. During the Sengoku Period (1467–1615 AD) samurai carried miso with them as it was a high source of protein and could be easily preserved when dried for long periods of time, making it ideal and a crucial provision during battle [1]. Japan has an Agricultural standard, regulating many fermented foods; like soy sauce, miso is not included here due to its vast variety, making it difficult to classify into categories and create a general standard [6]. Due to the lack of JAS standing, the exact number of miso products sold throughout Japan is unattainable beyond the fundamental classification method that uses the bases (rice, soybean, or barley) as its distinguishing characteristic [6].

THE BASES & PLACES OF THE PASTES

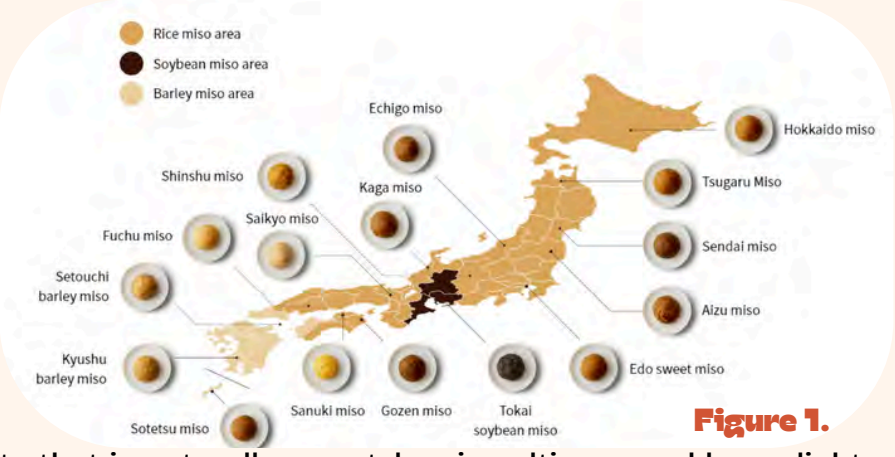


Figure 1.

1. White Miso (shiro, Saiko) is rice based paste that is naturally sweet, low in saltiness and has a lighter aroma and therefore makes a nice pairing with cabbage or tofu (Omura, 2025).
2. Barley Miso (Mugi) is a light and slightly sweet pasta that is more toasted, pairing nicely with sweet vegetables like sweet potato and pumpkin (Omura, 2025).
3. Blended Miso (Awase, "yellow" or "English" Miso) combines both sweet and savory elements and pairs well with most anything due to its blend - this is a user-friendly miso paste (Omura, 2025).
4. Red Miso (Hatcho, Sendai) is a bean based paste that is an earthy rich umami paste with a slight bitterness to it, it pairs best with root vegetables and or white meats (pork or clam) and is able to withstand long cooking (Omura, 2025).

THE EVOLUTION of MISO PASTE

As addressed earlier, miso originally started out as a stand alone paste often paired with rice and then transitioned into a soup base once spending some time in Japan. More recently miso soup has been seen as a trenching food on the international market due to its richness in probiotics, seen to be beneficial for gut health, digestion aid and immune system support [1].

A lot of the progression and change seen in miso's evolution lies within its fermentation process, which, with the evolution of technology, has become much more of a controlled and constrained process. The general quality of miso has greatly improved due to our modern ability to exude greater levels of control over the fermentation, seen in ability to control, breed, and replicate Koji mold, pictured in FIgure 2.

THE FUZZ (mold)

Figure 2.

THE True Key Ingredient, the mastery of Mold

A little over half a century ago, the technique behind the fermentation process was refined by mixing koji-mold, (seen in Figure 2) and charcoal [6]. The combination of the mold and charcoal made it a stable-quality ferment that could be sold to those making various products [6]. Koji is used in the production of sake (rice wine), mirin, soy sauce, and mirin [12]. Its name translates to "yellow mold," and this is used as an umbrella term that can go on to produce various forms of "mold" used for many different styles of fermentation. Shops specialized in the selling of the mold are known as "moyashiya," the first bio-business [6]. Aspergillus oryzae is the primary Koji mold for miso. During the fermentation process, the soy proteins are hydrolyzed and release amino acids which result in the umami flavour; however, rice and barley starches are broken down into glucose during fermentation, producing sugar and making these bases sweeter [12]. The success of the fermentation process is reliant on the perfect balance in levels of proteinase and amylase when selecting the correct koji for miso fermentation [12]. Factors that are heavily monitored when producing koji are the transition in temperatures, to increase production of spores, ambient humidity, and the timeline of the koji production itself, which allows for an increase or decrease in enzymatic contents and activities in the final product [12]. Increase in global popularity is due to its associated health benefits, in its high amount of probiotics which are highly beneficial for overall gut health [12].

GEOGRAPHIC ORIGIN

GREEN ONION

also known as :

Scallion

Japanese Bunching Onion

Welsh Onion

Sring Onion

“Taxonomically, green onion belongs to the division angiosperms, class Liliopsida, order Asparagale, family Amaryllidaceae, genus Allium and species fistulosum” [10]. Member of the Amaryllidaceae family. It is widely cultivated as a “spicy vegetable” [10]. Holds great culinary importance in countries such as China, Japan, and the Republic of Korea [10]. Green onions are versatile not only on the table but also in their ability to succeed in the garden, making them a highly desirable plant as they are hardy and adaptable to environmental conditions [10]. The world's highest green onion producing countries are China (75,000 hectares), Japan, and the Republic of Korea (both 25,000 hectares) [10]. Widespread cultivation of green onions can also be seen in Europe (specifically Germany) and America, yet Egypt and Morocco are the key suppliers of green onions to European markets with nearly 4,000 hectares dedicated to their production [10]. This widespread production of green onion can also be linked to its adaptability and ability to be cultivated year-round in various regions [10]. The range in versatility continues into the plant itself with a wide range of varietals producing an impressive amount of variance in spice levels, pungency, and texture [10]. Nutritionally, green onions contain an array of vitamins (Vitamin A and range of Vitamin B), antioxidants, antimicrobial, and anticancer agents [10]. They are also a rich source of minerals such as potassium, magnesium, phosphorus, and calcium [10]. As several wild species of green onion exist, and like most things in this world there is dispute over where green onions first came into play.

EVOLUTION OF THE GREEN ONION

TODAY

Allium cepa, the common onion harvested early, is what results in green onions from commercial producers in America [4]. Other varieties such as Allium chinense, Allium fistulosum, and a hybrid of Allium cepa and Allium fistulosum can also be found, often produced in Asia [4]. Green onions are grown commercially in over twenty states across the US, with California leading production [3]. A significant amount of these are used for processed foods; however, green onions have also proven to be the fastest-growing fresh onion of interest among American shoppers [3]. The size of onion bulbs varies with the amount of daylight the plants are exposed to, so varieties are classified into "short-day" or "long-day" [3]. Short-day varieties require about ten hours of sunlight while long-day varieties require about fourteen hours [3]. Although green onions are harvested prior to reaching the bulb-forming stage, the green tops still remain green and tender, placing them in the short-day varietal of onions in the states [3]. In locations with longer growing seasons, long-day varietals such as Sweet Spanish Onions can be harvested before reaching the bulb stage [3]. Currently, hybrid varieties of onions are being sought after by private companies due to the limited number of public onion programs in the US [3]. Green onions are an annual crop that can be planted in spring, summer, and fall [3]. They are shallow-rooting plants that require well-draining soils but can be planted densely if the soil is properly irrigated during their 10-day germination stage [3]. Once ready, green onions are hand-harvested, often by undercutting the onions and pulling them up immediately [3]. the Green onion has come far in regards to its cultivation and wide spread use since its initial use as a from of currency.

The first record of green onions comes from Ancient Egypt, where they were used not only for consumption but also as currency; it is believed that part of the payment to those building pyramids was in green onions and other aromatic vegetables [7].

RECIPIE

Moms Disclosure

My mother required that I include her personal note that this soup is in no way the "correct" or Traditional way of making miso soup, However it is highly versatile and highly admired by kids.

*our house commonly used Better than Boullion
**whatever vegetables are in the fridge
***makes the soup "Kung-Fu Soup" according to youngest brother Jo.

INGREDIENTS

- Kombu or soup stock of choosing *
- Soft or Medium Firm Tofu
- Seasonal Vegetables **
- Udon Noodles ***
- Water

Melanie's Recipie

1. Prepare Dashi or Broth
    - To Prepare Dashi : Soak Kombu in water for half hour
    - To Prepare Broth : Use Better than Boullion
2. Chop up : Tofu & Seasonal Vegetables
3. Bring Broth to a Rolling Boil & Add in any Vegetables that may take longer to cook (root vegtables
4. Once Vegetables are Cooked, simmer the pot and place in Tofu and any leafy / light vegetables
5. at a low simmer Add Miso
    - Place scoop of miso paste into a laddle and lower laddle into pot of broth allowing the ladle to fill
    - stir contents of laddle to mix together broth and Miso paste till non clumps are present
    - slowly allow miso broth mixture to flow back into pot to combine with the rest of the soup
6. Give pot a final stir on a low simmer to fully integrate Miso
7. Serve, top with green onions & Enjoy

References

1. Rimping. 2025. “Miso: History of Japanese Fermented Seasoning & Superfood.” Rimping Supermarket, June 27, 2025. https://www.rimping.com/blog/7644/history-miso-japanese-seasoning. Used Ai because generator was struggling
2. Sakamoto, T., & Brownlee, J.S. (2007). The Six National Histories of Japan. University of British Columbia Press. https://muse.jhu.edu/book/41878.
3. WIFSS. (n.d.). Green onions: Pathogens and food safety risks [PDF]. Retrieved from https://www.wifss.ucdavis.edu/wp-content/uploads/2016/10/GreenOnions_PDF.pdf
4. Green onion. (n.d.). In Britannica. Retrieved November 30, 2025, from https://www.britannica.com/plant/green-onion
5. The Miso Soup Project, Part 1 (54 Miso Soups). (n.d.). The Japanese Food Report. Retrieved November 30, 2025, from https://www.japanesefoodreport.com/posts/the-miso-soup-project-part-1-54-miso-soups
6. Umami Information Center. (n.d.). Miso. Retrieved November 30, 2025, from https://www.umamiinfo.com/richfood/foodstuff/miso.html
7. Green Onions. (n.d.). Hmong American Farmers Association. https://www.hmongfarmers.com/green-onions/#:~:text=History,of%20them%20comes%20from%20Mesopotamia.
8. Kim, S., Yoon, J., Han, J., Seo, Y., Kang, B., Lee, J., & Ochar, K. (2023). Green Onion (Allium fistulosum): An Aromatic Vegetable Crop Esteemed for Food, Nutritional and Therapeutic Significance. Foods, 12(24), 4503. https://doi.org/10.3390/foods12244503
9. Kobejones. (2018, September 5). The history and culture surrounding miso soup - Kobe Jones. Kobe Jones. https://www.kobejones.com.au/history-culture-surrounding-miso-soup/
10. Kusumoto, K., Yamagata, Y., Tazawa, R., Kitagawa, M., Kato, T., Isobe, K., & Kashiwagi, Y. (2021). Japanese traditional miso and koji making. Journal of Fungi, 7(7), 579. https://doi.org/10.3390/jof7070579
11. Tasty, M. (2023, March 21). The Origin & History of Miso — Miso Tasty. Miso Tasty. https://misotasty.com/blog/the-origin-history-of-miso?srsltid=AfmBOoolB-Z1p8wRQFMqP0SZAV_uplPfZaL_0lfLPv0HuwlxdiUjkLWu
12. Omura, Y. (2025, October 20). Traditional miso soup (Authentic Japanese method). Sudachi. https://sudachirecipes.com/homemade-miso-soup/

Figure References

Figure 1. Map illustrating the regional varieties of miso across Japan, adapted from Umami Information Center [6].

Figure 2. Image of koji mold (Aspergillus oryzae) used in miso fermentation, adapted from Umami Information Center [6].

GRANDMA'S APPLE BUTTER

Sweet, rich flavour. A dark, caramel-like colour. Silky smooth and decadently warm. The scent of cinnamon-coated fruit fills the air with every inhale. Don't worry, you're not dreaming. I certainly wasn't when I woke up in my grandma's house to the comforting, irresistible smell of her homemade apple butter. I know this may seem like one of those scenarios that can only be conjured up by a grandmother's kitchen, but I assure you, these ingredients are not pulled out of her magic cupboards; in fact, they are actually at your local grocery store. This article will walk you through what apple butter even is and where it comes from. Its historic significance and the background to the ingredients that make this magical concoction.

ORIGINS OF APPLE BUTTER

Tracing back to the roots of apple butter, original recipes can be found in European kitchens, specifically in the Netherlands and Germany (Apple Butter, 2016). Often prevalent in monasteries, apple butter was a great way to preserve apples throughout the winter (Champlain Orchards, 2024). European settlers brought the recipe to America, and apple butter soon became essential in American homesteading throughout the 18th and 19th centuries (Champlain Orchards, 2024).

THE RECIPE

Ingredients list

- 6-7lbs of apples
  - Preferred Apples are (Gala, Honeycrisp, Granny Smith)
  - Apple varieties can be mixed
- 1 Cup of Granulated Sugar
- 1 Cup of Brown Sugar
- 1-2 Tablespoons of Cinnamon
- ½ Teaspoon of Nutmeg
- ½ Teaspoon of Allspice
- ½ Teaspoon of Cloves
- Pinch of Salt
- 1 Tablespoon of Vanilla Extract
- ¼ Cup of Apple Cider or Apple Juice

Tart vs Sweet Apples

When making your apple butter, the variety of apple you use is up to your preference. A sweeter apple, like a Gala or Honeycrisp, will cook down to a smoother consistency, making them more spreadable (Annie, 2025). A tart apple, like a Granny Smith, will help balance out the sweetness with its acidity and create a more complex flavor (Annie, 2025). Combining a tart and sweet apple will give your apple butter a deeper and more refined flavor (Annie, 2025).

RECIPE INSTRUCTION

Prepping the Apples
- Peel, core, and chop the apples into chunks

Slow Cook
- Toss the apple in the slow cooker, along with sugars, spics, salt, and a splash of cider. Stir.

Cooking
- Cook the apples on low for 9 hours. The apples should be easy to squish with a fork

Blending
- Use an electric whisk to make a purée
- Whisking ingredients together within the slow cooker

Cook Again
- Cook uncovered on low for 2 hours. Stir occasionally
- Will reach a thick, spreadable consistency, slowly dropping off the spoon

Serving
- Served best over biscuits, yogurt, or spread on pork chops before roasting

GRANDMA'S APPLE BUTTER

RECIPE HISTORY

In some areas of the U.S, like North Carolina, apple butter frolics were a large social gathering in which large batches of apple butter were made (North Carolina Historic Sites, n.d.). Large copper kettles, over an outdoor fire, were used to boil down cider before the apples were added, stirring constantly with a wooden paddle. The process took up to twelve hours. The sign, the apple butter. What was ready was when it held firm on a plate turned upside down. When finally prepared, the apple butter was enjoyed by the community, and the rest was canned to be used throughout the winter (North Carolina Historic Sites, n.d.). The process of making apple butter has become much more accessible due to the development of kitchen tools like the slow cooker, which eliminates the need for constant tending.

FOOD PRESERVATION

Food preservation is a practice that is shared by all cultures around the world. The ability to extend the shelf-life of foods that would normally spoil quickly changed how humans were able to consume seasonal foods (Historical Origins of Food Preservation, 2002). Furthermore, food preservation was a key part in building communities and cultural practices (Historical Origins of Food Preservation, 2002). Throughout the colonial times, food preservation was a key part of survival. Methods like smoking, pickling, and salting were very common and were crucial in extending the shelf life of food (Champlain Orchards, 2024). Food preservation was a science; improper technique resulted in bacterial contamination that would lead to illness and possibly death (Champlain Orchards, 2024).

ALL THINGS APPLE

Apples are one of the few fruits with true global significance. Originating in southern Kazakhstan, the ancestor to the modern-day apple was much smaller and more tart and still grows there today (Trinei, 2025). Travelers along the Silk Road brought this apple to Europe and China. Which, over time, evolved through natural hybridization with local crab apple species and selective breeding. In the 17th century, European settlers brought apples to North America (Trinei, 2025). Popular figures, such as Johnny Chapman (also known as Johnny Appleseed), planted orchards all across the American frontier (Trinei, 2025). As time went on, local farmers developed new cultivars suited for different tastes and climates (Trinei, 2025). Today, there are over 7,500 distinct cultivars grown globally throughout temperate regions across North, South America, Europe, New Zealand, and China (Trinei, 2025).

THE GRANNY SMITH

The Granny Smith apple is a small to mid-sized fruit easily recognized by its bright green colour and tart flavour, which results from a high acid content (Granny Smith Apples, n.d.). A member of the Rosaceae family, the Granny Smith apple has become one of the most widely grown apples in the world. Granny Smiths are popular for both raw and cooked uses; they're enjoyed plain, dipped in caramel, sliced into sandwiches, or baked into cakes and cobblers (Granny Smith Apples, n.d.). The apple is cultivated globally, but is originally native to Australia, and its exact origins remain unknown. It is believed to be the product of natural pollination, with some experts believing that one of the parents is the French crab apple (Granny Smith Apples, n.d.).

THE HONEYCRISP

The Honeycrisp apple is a medium to large-sized variety with a balanced sugar and acidity, which gives it a sweet flavour with a subtle tanginess. The Honeycrisp is an American member of the Rosaceae family, and was developed in the 1960s through crossbreeding techniques performed at the University of Minnesota's Agricultural Experiment Station, a research centre that has produced twenty-seven apple varieties, with Honeycrisp becoming one of its greatest successes (Honeycrisp Apples, n.d.). Today, the Honeycrisp is one of the largest commercially produced apples, prized for its signature crunch (Honeycrisp Apples, n.d.). Although Honeycrisps are cold-tolerant, they are very difficult to grow. They are commonly used in slaws and fruit bowls, and they hold their flavour well when cooked (Honeycrisp Apples, n.d.).

WHAT'S ALL THIS OTHER STUFF?

CINNAMON

The Cinnamon spice that we know today is the result of dried inner bark of evergreen trees of the genus Cinnamomum (McCormick Science Institute, n.d.-a). There are four main species of cinnamon that are sold around the world, grown in Indonesia, Vietnam, China, Sri Lanka, India, and Madagascar (McCormick Science Institute, n.d.-a). Cinnamon is one of the first known spices and has been used throughout history as a fragrance burned at funerals, used as an aphrodisiac, an appetite stimulant, and more, before becoming the household flavour it is today (McCormick Science Institute, n.d.-a). Cinnamon ranges in colours and is often dried into cylindrical sticks. It is often brought in stores pre-ground.

NUTMEG

Nutmeg comes from the seeds of the Myristica fragrans Houtt tree, which is native to Indonesia. Introduced to Europe in the 12th century, nutmeg became a status symbol and was added to food and drinks throughout medieval times (McCormick Science Institute, n.d.-b). Beyond its culinary appeal, nutmeg has a long history of medicinal use and is still incorporated into aromatherapy today (McCormick Science Institute, n.d.-b). In modern cooking, it is used primarily in baked goods and desserts. Nutmeg can be purchased either as a pre-ground powder or as whole nuts that can be freshly grated by hand (McCormick Science Institute, n.d.-b).

WHAT'S ALL THIS OTHER STUFF?

VANILLA

The Vanilla flavor is the product of cured beans harvested from the Vanilla species of tree, native to Mexico (McCormick Science Institute, n.d.-c). Most cultivated vanilla must be hand-pollinated, and producing the vanilla flavour that you know is an intensive process(McCormick Science Institute, n.d.-c). Freshly harvested vanilla beans do not have much flavor, which is only developed after a lengthy curing period of three to six months. In ancient Mesoamerica, vanilla valued incense and was commonly added to the Aztec drink Xoco-lall. Vanilla served mainly as an additive (McCormick Science Institute, n.d.-c), but by the 17th century it began to gain recognition as a flavour of its own. Vanilla became very popular in France, and by the late 1800s was of high demand globally, and emerged in American drinks like Coca-Cola and Pepsi (McCormick Science Institute, n.d.-c). For a long time, Mexico was the world's only exporter of vanilla, as it was the only region where the plant was naturally pollinated. However, in 1836 Belgium discovered a method for hand pollinating vanilla, and spread its cultivation throughout its colonial territories (McCormick Science Institute, n.d.-c). Today, vanilla is most commonly sold as vanilla extract made by soaking vanilla pods in ethanol and water and is used widely in cooking and baking around the world.

ALLSPICE

Allspice is native to Mexico, Central America, and Jamaica (Pimenta Dioica, n.d.). The fruit is harvested from the Pimenta dioica tree while still green and unripe (Pimenta Dioica, n.d.). After picking, the berries are dried and then ground into the familiar spice we know as allspice. Allspice is a popular flavour in Caribbean cuisine, where it is used in everything from jerk seasoning to stews and baked goods (Pimenta Dioica, n.d.).

FINAL DETAILS

JAM VS BUTTER VS APPLE BUTTER

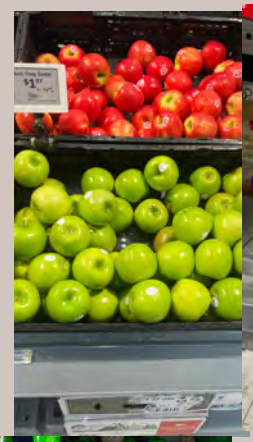
To clear up any confusion, there's no butter in apple butter. It's more similar to a jam; however, it's still not a jam (Champlain Orchards, 2024). Apple butter is a thick, smooth fruit spread more similar to apple sauce, but with a thicker texture and stronger flavor. Compared to jam, apple butter does not contain as much added sugar. Also, there are no clumps of fruit in the finished product; it is completely smooth. Apple butter has a unique versatility where it can be applied for its natural sweetness in breakfast and baking or as a savory addition on top of pork chops (Champlain Orchards, 2024).

PERSONAL CONNECTIONS

Apple butter has always been a recipe within my family. My Dad grew up on apple butter that was made for him by my grandmother. As a child, she continued this tradition with my sister and me. Biscuits lathered in a thick layer of Apple Butter were one of my favorite meals. Whether it was for breakfast, snack, or even dessert, I would always reach for biscuits and apple butter, though my grandma had a firm rule that biscuits and apple butter were never to be eaten for dinner. Its rich, spiced sweetness made it my absolute favourite food growing up, and every visit to see my Grandm,a she would always have a fresh batch waiting for me. With how much I love this delicious spread, I realised I didn't have much knowledge about its history. This article will explore the origins and evolution of apple butter, and will also break down the ingredients that give it its distinctive flavour.

BUDGET

Here are all of the photos of all of the ingredients needed except for allspice




Considering the proportions of the recipe listed above, the estimated cost to make this recipe is:

Considering the proportions of the recipe listed above, the estimated cost to make this recipe is: $4.34 per pound of Granny Smith apples = $38.04 on apples, and a total cost of $95.60, not including tax.

REFRENCES

Annie. (2025, March 3). Best Apple Butter Crock pot recipe: Easy, delicious and perfect for fall. Strong Animals. https://www.getstronganimals.com/post/best-apple-butter-crock-pot-recipe-easy-delicious-and-perfect-for-fall#:~:text=The%20Best%20Apples%20for%20Apple,and%20have%20a%20smoother%20texture

Apple Butter. (2016, October 18). OLD LINE PLATE. https://oldlineplate.com/apple-butter/

Champlain Orchards. (2024, September 11). Apple butter: a delicious spread for every season. https://champlainorchards.com/blogs/news/apple-butter-spread#:~:text=It%20is%20also%20different%20from,maple%20syrup%2C%20or%20white%20sugar

Granny Smith Apples. (n.d.). https://specialtyproduce.com/produce/Granny_Smith_Apples_2021.php

Historical Origins of Food Preservation. (2002, May). National Center for Home Food Preservation. Retrieved December 1, 2025, from https://nchfp.uga.edu/resources/entry/historical-origins-of-food-preservation

Honeycrisp apples. (n.d.). https://specialtyproduce.com/produce/Honeycrisp_Apples_3122.php

McCormick Science Institute. (n.d.-a). Cinnamon | McCormick Science Institute. https://www.mccormickscienceinstitute.com/resources/culinary-spices/herbs-spices/cinnamon

McCormick Science Institute. (n.d.-b). Nutmeg | McCormick Science Institute. https://www.mccormickscienceinstitute.com/resources/culinary-spices/herbs-spices/nutmeg

McCormick Science Institute. (n.d.-c). Vanilla | McCormick Science Institute. https://www.mccormickscienceinstitute.com/resources/culinary-spices/herbs-spices/vanilla

North Carolina Historic Sites. (n.d.). Apple Butter. Retrieved December 1, 2025, from https://historicsites.nc.gov/all-sites/horne-creek-farm/southern-heritage-apple-orchard/apples/uses-apples/apple-butter

Pimenta dioica. (n.d.). Missouri Botanical Garden. https://www.missouribotanicalgarden.org/plantfinder/PlantFinderDetails.aspx?taxonid=282860#:~:text=Pimenta%20dioica%2C%20commonly%20called%20allspice,Indies%2C%20Mexico%20and%20Central%20America.

Stemilt. (2023, November 21). The Top Tart Apples - There's an Apple for That. There’s an Apple for That. https://appleforthat.stemilt.com/apple-types-tips/top-tart-apples/#:~:text=The%20reason%20some%20apples%20are%20tart%2C%20while,total%20acid%20in%20an%20apple%20ghostwriting%20seminararbeit

Trinei, A. (2025, August 7). The history of the Apple and its remarkable variety. North Coast Organic. https://www.northcoast.organic/the-history-of-the-apple-and-its-remarkable-variety/

MONKEY BREAD

ES 347

A DESSERT THAT MADE ITS WAY INTO THE WHITE HOUSE

ORIGINS AND EVOLUTION

THE GOLDEN DUMPLING

Monkey bread is a sweet cinnamon dessert rolled into pull-apart dough balls cooked in a bundt pan. However, this is not the form this dessert has always taken. Monkey bread is the Americanized version of Aranygaluska, a Hungarian-Jewish dessert [1]. The name translates to “golden dumpling” in English and has generally been made to celebrate Jewish holidays [1].

The dish became popular in the United States and subsequently, North America when Hungarian immigrants brought the dish over in the mid-20th century [1]. But the dish truly rose to fame when Nancy Reagan served it in the White House during the holidays [1]. The dessert has gone by many names; it was referred to as ‘Hungarian coffee cake’ in the 1972 Betty Crocker recipe, but ultimately monkey bread has stuck, possibly for the monkey-like nature of picking pieces off [1,2].

SURVIVAL AND REBIRTH

Aranygaluska is a staple of two Jewish holidays, Purim and Simchat Torah [1,3].

Purim is a joyful celebration of the Jewish survival in ancient Persia, as told in the Book of Esther [4]. It is celebrated on the 14th of Adar (determined by the Hebrew lunisolar calendar) [4]. It is celebrated with costumes, parties, plays, and sometimes encouraged inebriation [4].

It is also baked for Simchat Torah [3]. Another joyful holiday that celebrates the end of the yearly Torah-reading cycle and the start of a new one [5]. This holiday is celebrated on either the 22nd or 23rd of Tishri [5]. The celebrations begin in the evening and continue into the next morning, where people make circles around the bimah while dancing with the Torah, and children wave flags [5].

Figure 1 [6]

Monkey bread is not only the Americanized name for Aranygaluska, but it is also comprised of different ingredients. Usually using a premade biscuit dough, rolled in melted butter, and rolled again in a layer of sugar and spices (commonly cinnamon) [2]. However, traditional Aranygaluska is made with homemade sweet yeast dough, rolled in melted butter, and rolled again in sugar and walnuts cooked in a cake pan instead of a bundt pan [2].

THE DOUGH

The dough of Aranygaluska is traditionally made with flour, water, yeast, and sugar [3].

WHEAT

Evidence of humans gathering wild grains spans as far back as 100,000 years ago, while evidence of humans grinding grains is seen 30,000 years ago [7]. Agriculture originated in the ancient Levant around 9500 B.C., and one of the earliest cultivated crops was wheat [7]. By the Bronze Age and Roman times, people already used advanced farming techniques to grow wheat, especially bread wheat [8].

Figure 2 [9]

HUNGARIAN WHEAT

Wheat began to spread from the Middle East to Europe and reached the Carpathian Basin (located in modern-day Hungary) in about 2000 years [8]. In fact, archaeologists found wheat pollen in Lake Balaton from 4000 B.C., so wheat has been in the region for a very long time [8]. By the time the Hungarians arrived in the region (9th-10th century), wheat was already grown widely on the western side of the Danube River [8]. The earliest written mention of wheat in Hungary appears in 1190, in a document from King Béla III [8].

THE WHEAT OF THE PAST

Wheat was once grown naturally, stored as whole kernels, and freshly stone-milled for nutrition [10]. Industrial roller mills in the 1870s began stripping away the bran and germ, creating long-lasting but nutrient-poor white flour [10]. The rise of the Green Revolution created a new semi-dwarf, high-yield wheat that is genetically different from historical varieties [10]. Modern wheat is grown with synthetic fertilizers, pesticides, and intensive farming methods that further change its composition [10]. Gluten levels were increased through breeding to improve baking qualities [10]. Today's wheat is often described as a chemically supported, genetically modified crop - very different from the nutrient-dense grain eaten for millennia [10].

YEAST

Early humans may have used naturally fermenting fruit with wild yeast up to 1 million years ago, and it is considered one of humanity's oldest domesticated organisms [11]. The first yeast bread emerged in Egypt in 1350 B.C. from wild yeast fermentation [7]. Fermentation and baking methods were passed from Egypt and Babylon to ancient Greece and ancient Jewish cultures [11].

DNA studies show modern bread and beer yeast (*Saccaromyces cerevisiae*) originated in China and spread west along the Silk Road [11]. In 1857, Louis Pasteur proved that yeast is a living organism responsible for fermentation, transforming science and baking [11]. Before commercial yeast production took place in the 1700s, bakers used the foam from beer brewing as their yeast source [11]. In 1891, the first major yeast patent was created with increased production capability, quality and sterility due to new technology and methods [11]. By the 1920s, the commercial yeast industry as we know it was created [11].

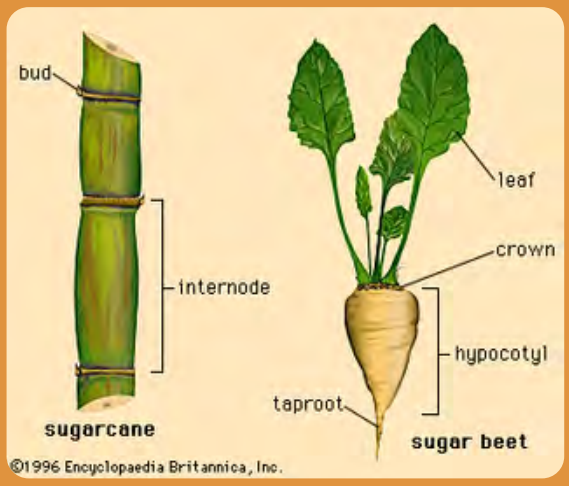


Figure 3 [12]

SUGAR

Sugar cane is native to New Guinea, where people first chewed the stalks for their sweet juice [13]. By 350 B.C., sugar cane spread to India, where people learned to crystallize sugar by boiling the cane juice [13]. Between 600-800 A.D., sugar moved into the Arab world, where it began to be used in familiar ways such as pastries, jams, sweets, and syrups [13]. In the 700s, the Moors brought sugar culture to Spain and Portugal, introducing it to Europe [13].

For centuries, sugar in Europe was a luxury good because the climate was too cold to grow cane and production required intense labour [13]. After Columbus's voyage in 1492, Europeans realized the Caribbean climate was suitable for sugar cane [13]. In 1493, Columbus brought the first sugar cane plants to the Americas, and soon after, the first New World sugar plantation was established in Jamaica by his son Diego [13]. From the 1500s onward, sugar became a driving force of colonization, after slavery declined in the 1800s, the price of sugar cane rose, leading to interest in alternative sources [13].

Sugar beets emerged as a new solution because they could be grown in colder climates, eventually reshaping sugar production in Europe [13]. Sugar beet farming began in Hungary in the late 1700s [14]. Hungary's climate is generally good for growing sugar beets, but when and how much rainfall is the most important factor [14].

THE WALNUTS

Juglans regia, “the golden nut”, are the oldest tree food known to man [15].

WALNUTS

Not only are they the oldest tree food to man, but walnuts stretch back to 40 million years ago [15]. The Persian walnut tree first appeared in the fossil record 3.45 million years ago and spread to Eurasia, Central Asia, the Near East, and Southern Europe [15]. Archaeological evidence shows that although walnuts have been around for a long time, humans only started eating them 45,000 years ago [15].

The first evidence of walnut cultivation occurred in modern-day Iran 7000 years ago during the Neolithic period - the transition from hunter-gatherers to farmers [15]. Walnuts are a part of the Juglandaceae tree family, which has two dozen recognized species of walnuts, and also includes hickory and pecan trees [15].

In Persia, walnuts were reserved for royalty, which is why they are sometimes referred to as the “golden nut” [16]. Walnuts were traded along the Silk Road, and during the height of British colonization, British sea merchants took them around the world [16]. Walnuts require deep, well-draining soils, are typically watered through floor irrigation, and thrive in temperate climates [15].

HEALTH BENEFITS

Walnuts are technically a seed and are 65% fat by weight, including omega-6 and omega-3 fatty acids [15]. They also contain antioxidants such as ellagic acid, catechin, phytic acid, and melatonin, which is why medieval doctors used walnuts as a sleep aid [15]. Some of the important vitamins and minerals in walnuts include copper, folic acid, B6, manganese and vitamin E [15].

HUNGARIAN WALNUTS

Persian walnuts have been grown in Hungary for a long time [17]. A unique walnut population in northeast Hungary may even be indigenous and genetically different from other global walnut types [17]. Around the 1910s, Hungary tried to domesticate French walnut varieties by planting French seedlings, but this attempt failed, and after World War II, it became clear that the French-derived seedlings were poorly adapted to Hungary’s climate and produced lower yields and nut quality [17]. In the 1950s, Hungary shifted to selective breeding using local walnut populations instead of foreign ones [17]. Walnut production in Hungary is increasing; the country produces around 7,088 tonnes annually, and it is the third most important fruit crop [17].

MODERN WALNUTS

Ancient Greeks selectively bred Persian walnuts, making them larger and closer to today's modern versions [18]. In 2017, the global walnut harvest was over 3.8 million tonnes, and continues to grow each year [19].

Historic Walnuts	Smaller	Thick, hard shells	Stronger taste, more bitter	Darker, more astringent	Used for food and medicine	Mostly grown in Persia and nearby regions	Grown for royalty
Modern Day Walnuts	Bigger	Thinner, easier to crack shells	Taste milder and sweeter	Lighter in colour kernels, less astringent	Used in baking, cooking and oil	Grown globally, espeically in California	Bred for higher yields, better disease resistance, and more predictable harvests

Figure 4 [18]

HUNGARY'S CLIMATE

Figure 5 [21]

Hungary has a continental climate with hot summers, cold winters, and rapid seasonal transitions [20]. Average temperatures range from -4 to 0° C in January and 18 to 23° C in July [20]. Annual rainfall decreases from west to east, from about 750 mm in the west to 500 mm in the east [20]. The rainfall is unpredictable; eastern regions often face summer droughts and depend on irrigation for crops [20]. Vegetation is dominated by grasslands and crops in the lowlands, with forested areas mainly in the higher northern and western regions, such as the Bakony Forest [20]. Hungary has fertile soils, especially chernozem (black earth) [22]. Traditional farming has relied on intensive ploughing, which has caused soil degradation over time [22]. Modern practices are slowly shifting toward conservation methods like reduced tillage and no-till farming [22].

HUNGARY'S CLIMATE

Hungary's climate is suitable for wheat production, as has been demonstrated by evidence of wheat pollen in the region since 4000 B.C. [8]. This wheat cultivation has made wheat and, subsequently, flour, available in this region for cooking and baking. Due to the cooler climate being unsuitable for cultivating sugar cane, Hungary shifted to growing sugar beets in the 1700s, which provided an alternative to importing sugar from warmer regions [14]. With the cultivation of sugar beets, Hungarians would have been able to have more ready access to sugar and at a lower cost. Finally, walnut trees thrive in Hungary's temperate climate, even potentially having their own indigenous varietal [17]. Walnuts do well in deep, well-draining soils, similar to the soils of the Great Hungarian Plains and the chernozem soils across Hungary [20,15,22].

THE FUTURE OF ARANYGALUSKA

Aranygaluska has already undergone a massive adaptation when it was brought to America, particularly its name - monkey bread [1]. Exchanging the homemade dough for premade biscuit dough, the cake pan for a bundt cake pan, and the toppings of walnuts and raisins for cinnamon sugar [2]. Additionally, it is no longer solely associated with the Jewish holidays Purim and Simchat Torah, notably celebrated during the holidays in North America due to Nancy Reagan's popularization [1,3]. Although monkey bread is an adaptation of the dish, it is not the traditional Aranygaluska. As the culinary world grows and expands, other adaptations of monkey bread, such as savoury monkey bread, have arisen [2]. For example, Seddiq (2025) has a recipe for "Afghan monkey bread", a savoury variation made with chives, cilantro and various spices such as char masala. I have even found a recipe through TikTok for microwave mug monkey bread, which uses self-rising flour and Greek yogurt for the dough, rolled in cinnamon sugar [23].

MY MOTHER'S VERSION

New Year's Day is the only day I would eat monkey bread growing up. My mother only ever cooked it on January 1st because we would always host a party with our friends and family. It was a special dessert to celebrate with the important people in my life, and was always very popular amongst the children. Seddiq (2025) states that monkey bread holds cultural significance as a communal dish; it is a pull-apart cake too large for any one person to eat, and therefore is best shared, and that is exactly how I remember eating it - with a group of people standing around, eating with me. My mother's recipe is a bit of a mash-up of two recipes combined into one: a basic bread dough that came with her bread maker, and the second for the coating.

RECIPE

INGREDIENTS

DOUGH

Water	1 cup
Salt	1 tsp
Butter	1 tbsp
Bread flour	2 ¼ cups
Sugar	3 tbsp
Dry milk	1 tbsp
Active dry yeast	1 ½ tsp
Egg	1 beaten

COATING

Melted butter	⅔ cup
Cinnamon	2 tsp
White sugar	¾ cup

DIRECTIONS

1. Preheat oven to 350° F
2. Melt 1 tbsp butter
3. Whisk the water, salt, melted butter, sugar and yeast together in a small bowl, and allow to sit for 5 minutes
4. Add remaining ingredients
5. Knead the dough for 5-7 minutes in a mixer or by hand
6. If the dough becomes too sticky, sprinkle a teaspoon of flour to make a soft, slightly tacky dough
7. Place the dough into a bowl lightly greased with oil, to coat all sides in oil
8. Cover the bowl and allow the dough to rise in a relatively warm environment for 1-2 hours until it doubles in size
9. Grease a 10-12 cup bundt pan
10. Melt the butter
11. Mix cinnamon and sugar together in a separate bowl
12. Shape the dough into balls roughly 1.25 inches in diameter
13. Dip each ball one by one in the melted butter and then generously roll in the cinnamon sugar mixture. You may need more.
14. Arrange the balls in the bundt pan
15. Cover the pan and allow to rest for 20 minutes. It will rise slightly during this time
16. Adjust oven rack to the lowest position
17. Pour any remaining butter and sugar over the top of the monkey bread
18. Bake for 30-40 minutes until golden brown on top. Cover loosely with foil if the top is browning too much
19. Cool for 5-10 minutes and then invert onto a serving plate.

REFERENCES

1. Eszter. (2016, January 18). Golden walnut dumplings – Aranygaluska. Zserbo.com. https://zserbo.com/desserts/golden-walnut-dumplings-aranygaluska/
2. Seddiq, M. (2025, October 1). The ultimate Monkeybread recipe: History, tips, and an Afghan twist. Afghan Cooks. https://afghancooks.com/monkeybread-recipe/
3. Naftali, Y. (2024, October 21). Hungarian Aranygaluska (Pull-Apart Cake). Jewish Food Society.https://www.jewishfoodsociety.org/recipes/hungarian-aranygaluska
4. Preston, C. (2025a, November 5). Purim. Britannica. https://www.britannica.com/topic/Purim
5. Preston, C. (2025b, October 25). Simchat Torah. Britannica. https://www.britannica.com/topic/Simchat-Torah
6. Herman, G. (2017, April 4). Hungarian golden pull-apart cake with walnuts and apricot jam (Aranygaluska)[Photograph]. Epicurious. https://www.epicurious.com/recipes/food/views/hungarian-golden-pull-apart-cake-with-walnuts-and-apricot-jam-aranygaluska
7. Mariner, B. (2020, March 11). A definitive timeline of bread. The Spruce Eats.https://www.thespruceeats.com/bread-history-timeline-4783245
8. Tömösközi, S., Németh, R., Farkas, A., & Rakszegi, M. (2023). Hungarian History of Cereal Cultivation, Processing and Sourdough Making. In J. M. F. Rocha, G. E. Orhun, K. Pastor, A. McElhatton, & M. Garcia-Vaquero (Eds.), Traditional European Breads (pp. 161–180). Springer International Publishing AG. https://doi.org/10.1007/978-3-031-23352-4_8
9. kallerna. (2022, September 20). Vehnäpelto 6 [Photograph].Wikipedia. https://en.wikipedia.org/wiki/Wheat#/media/File:Vehnäpelto_6.jpg
10. Grainstorm. (n.d.). Modern wheat issues. Grainstorm. https://grainstorm.com/pages/modern-wheat
11. Explore Yeast. (n.d.). Yeast: One of humankind's oldest ingredients. Explore Yeast. https://www.exploreyeast.com/what-is-yeast/yeast-one-of-humankinds-oldest-ingredients/
12. Encyclopaedia Britannica, Inc. (1996). Sugar crops [Diagram]. In Sugar (chemical compound). https://www.britannica.com/science/sugar-chemical-compound
13. Kean, S. (Host). (2022, October 12). Sugar: The most evil molecule [Audio podcast episode]. In The Disappearing Spoon. Science History Institute. https://www.sciencehistory.org/stories/disappearing-pod/sugar-the-most-evil-molecule/
14. Potyondi, L., & Kimmel, J. (2003). Present situation in Hungarian sugarbeet production. In Proceedings of the 1st Joint IIRB–ASSBT Congress (pp. 849–855). San Antonio, TX, United States.
15. Stone, J. J. (2023, April 2). History of walnuts – What Am I Even Eating?! Jerry James Stone. https://jerryjamesstone.com/how-to/history-of-walnuts-what-am-i-even-eating/
16. California Walnuts. (2019, December 10). The humble walnut has a gilded history. California Walnuts. https://walnuts.org/blog/balanced-lifestyle/the-humble-walnut-has-a-gilded-history/
17. Bujdoso, G., & Cseke, K. (2021). The Persian (English) walnut (Juglans regia L.) assortment of Hungary: Nut characteristics and origin. Scientia Horticulturae, 283, Article 110035. https://doi.org/10.1016/j.scienta.2021.110035
18. Chandler Orchards. (n.d.). English walnuts vs black walnuts: What's the difference? Chandler Orchards. https://www.chandlerorchards.com/english-walnuts-vs-black-walnuts-whats-the-difference/
19. Brady, G. (2021, January 5). Are walnuts the oldest tree food we know? Ayoub's Dried Fruits & Nuts. https://ayoubs.ca/blogs/news/are-walnuts-the-oldest-tree-food-we-know
20. Blue Green Atlas. (n.d.). The climate of Hungary. Blue Green Atlas. https://bluegreenatlas.com/climate/hungary_climate.html
21. Encyclopedia Britannica. (2025, November 21). Hungary [Image]. Encyclopedia Britannica. https://www.britannica.com/place/Hungary#/media/1/276730/1907
22. Tóth, E., Magyar, M., Cseresnyés, I., Dencső, M., Laborczi, A., Szatmári, G., & Koós, S. (2025). Climate-Smart Agricultural Practices—Strategies to Conserve and Increase Soil Carbon in Hungary. Land, 14(6), 1206. https://doi.org/10.3390/land14061206
23. doctorbowl. (2023, June 1). Single serve monkey bread [Video]. TikTok. https://vt.tiktok.com/ZSfyrmheF/

BEEF BOURGUIGNON

A dish that speaks to the land

Figure 1

Beef Bourguignon: a glorified meat stew, and yes, we can thank the French for that.

Tender beef braised in a rich red wine sauce, accompanied by perfectly softened vegetables, slow-cooked until every bite is infused with deep, savory flavor. It is at once soul food and a luxury – where the comfort of home meets the hearty, robust tastes of the French countryside. Simple in concept but sophisticated in execution, Beef Bourguignon embodies both tradition and indulgence, transforming humble ingredients into a dish that is celebrated around the world.

From humble kitchens to Michelin-starred tables, *Boeuf Bourguignon* tells the story of a region. Every bite carries the soil, climate, and heritage of Burgundy – a dish where geography meets gastronomy.

"Burgundy on a Plate: How Land Shapes Flavor"

The historical region of Burgundy (Figure 2) encompassed the departments of Côte-d'Or, Saône-et-Loire, Nièvre, and Yonne. In 2016, Burgundy and Franche-Comté were merged to form Bourgogne-Franche-Comté (Britannica, n.d.) however, for the purposes of this article, we will refer to the region using the historical naming.

Burgundy is geographically and climatically diverse. The northwest consists of lowlands with rolling hills, while the west and east contain plateaus surrounding the uplands of Morvan and Charolais, intersected by rivers and valleys. The northern areas experience hot summers, cold winters, and frequent spring frosts, whereas the southern parts are warmer and drier (Les Grappes, n.d.). These variations have created microclimates ideal for specific agricultural products, resulting in distinct flavors and qualities in local food and wine.

Figure 2

A Note on Soil

The soils of Burgundy are particularly notable, with intricate layers of limestone, marl, and clay, as well as numerous marine fossil deposits – over 400 different soil types exist across the region (Alexander, 2014). These geological formations directly affect the taste and quality of crops, grapes, and livestock raised there. Vines rooted in these soils produce wines with subtle mineral notes and complex flavor profiles, while pastures rich in nutrients support the development of high-quality beef from Charolais cattle. The upland pastures of the Charolais region, combined with favorable microclimates, allowed cattle to thrive, producing meat with excellent texture, fat distribution, and flavor—ideal for slow-cooked dishes like Boeuf Bourguignon.

From Aurochs to Charolais: The Journey of Beef

The precise origins of cattle domestication are debated, but current evidence suggests it occurred approximately 7,000–8,000 years ago in Southwest Asia (Gade, 2009, p. 490). Although the Fertile Crescent is often cited as the birthplace of domesticated cattle, this may partly reflect the concentration of archaeological research in that region.

Discoveries at Çatal Hüyük, Turkey, indicate that the domestication of aurochs into cattle may have occurred independently in multiple locations (Gade, 2008, p. 491). Early domesticated cattle were likely used in ritual contexts; German geographer Eduard Hahn observed that the curved horns of aurochs resembled crescent moons, suggesting potential ceremonial significance during lunar events.

Domesticated cattle are descendants of the now-extinct aurochs, a member of the genus Bos, which comprises five recognized species. European cattle are classified as Bos taurus and Bos indicus, with the French Charolais breed belonging to Bos taurus. According to Gade (2008, p. 490), the Roman poet Virgil noted that after a devastating disease reduced peasant herds, aurochs were domesticated to replace lost livestock.

But why Cows?

Cattle require significant land and water, yet they provide substantial yields of meat and milk, which were important in the age of food scarcity.

Their expansion across Europe was likely facilitated by the invention of the wooden plow, which allowed farmers to more effectively harness large animals and improved overall cultivation (Gade, 2008, p. 490).

In Burgundy, France, Charolais cattle are raised in upland pastures. The Arconce valley, located at the intersection of the Charolles and Brionnais regions, is recognized as the breed's place of origin. Originally used for draft purposes, these cattle were later bred for beef production. Although officially recognized as a breed in 1775, white cattle had been observed in the region as early as 878 A.D., likely introduced by the Romans (Canadian Charolais Association, n.d.).

Charolais cattle were selectively bred for size, musculature, and strength. Between the 14th century and approximately 1772, herds were largely confined to the Charolles region, which comprised small farms and private estates with limited common land (Charolais International, n.d.). Geographic isolation, regional tariffs, and breeder competition encouraged selection for the whitest cattle, a trait associated with purity, resulting in a uniform and distinctive breed.

In 1773, Claude Matthieu relocated Charolais cattle to the Nièvre region, establishing pastures on the clay-rich soils and expanding breeding practices. The breed quickly gained recognition for rapid growth, strong physical and mental development, and excellent fattening capacity. The creation of the Herd Book Charolais in 1864 formalized purebred registration, further emphasizing selective breeding for marbling, size, and robustness (Charolais International, n.d.). By the twentieth century, Charolais had attracted international attention for their striking white coats, and the breed spread globally; today, nearly 70 countries participate in the Charolais Association, with over 1.6 million cattle in France.

˝Liquid Terroir: Burgundy´s Wines and Their Legacy˜

The earliest evidence of wine made from domesticated vines comes from a Neolithic site in the northern Zagros Mountains of Iran, dating back approximately 7,400 years. It is believed that wine first emerged in this region of Southwest Asia, where Vitis vinifera grows naturally.

From there, viticulture spread westward through Turkey and into the Greek Aegean islands, where it became an integral part of Greek culture. Wine was later introduced to France during the Roman Empire, where viticulture techniques were further refined. The Romans developed grape varieties adapted to local climates and advanced methods for pruning and training vines. They also selected vineyard locations strategically, taking into account proximity to urban markets, access to rivers and coasts for transportation, and sloped terrain to optimize sunlight, airflow, and drainage (Newman, 2008).

As European nobility and wealthy merchants gained influence, greater attention was given to wine quality, with Burgundy emerging as a leading region (Newman, 2008). The dukes of Burgundy hosted elaborate feasts showcasing both fine food and wine to demonstrate their wealth. Cistercian monasteries played a pivotal role in establishing the importance of terroir, identifying the most suitable vineyards in the Côte d'Or. Duke Philippe the Bold banned the cultivation of the high-yield Gamay grape in favor of Pinot Noir (traditionally called noirien), favoring lower-yielding grapes with more complex and refined flavors. This marked the beginning of a hierarchical approach to wine quality.

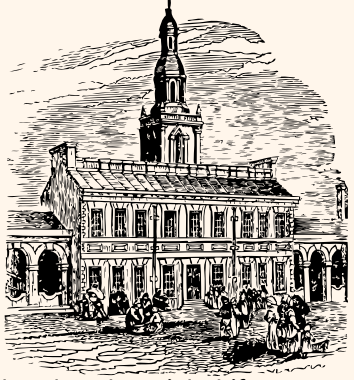
Advancements

A major advancement occurred in the seventeenth century with the invention of durable glass bottles, which replaced traditional wooden barrels and jugs. The use of cork stoppers limited oxygen exposure, allowing wine to remain fresh for longer and enabling aging. This innovation facilitated transport and trade, particularly in Burgundy, and contributed to a rapid expansion of vineyards (Newman, 2008).

During the Middle Ages, Cistercian monks emphasized the concept of terroir, which later became the foundation for the Appellation d'Origine Contrôlée (AOC) system, formally established in 1935. By the early twentieth century, Burgundy began to recognize the economic and cultural value of its vineyards, though tourism developed more slowly. In July 2015, UNESCO designated the vineyards of the Côte de Beaune and Côte de Nuits as World Heritage sites, a recognition expected to boost wine-and-food tourism in the region (Lecat & Chapuis, 2017).

The widespread appreciation of food and wine in France gained momentum in the eighteenth century and accelerated in the twentieth century with the rise of automobiles, the establishment of wine roads, the publication of the Michelin Guide, and events such as Dijon's gastronomic fair and the ceremonial chapters of the Brotherhood of the Chevaliers du Tastevin (Lecat & Chapuis, 2017).

"From Hearth to Haute Cuisine: The Birth of Boeuf Bourguignon"



French cuisine developed alongside broader cultural and social shifts, with food emerging as a marker of refinement, regional identity, and social status. As Barlösius (2008) observes, nineteenth-century France witnessed the rise of a gastronomic culture in which cooking was valued for technique, pleasure, and national identity rather than mere sustenance.

The evolution of French cuisine, however, draws heavily on older regional and rural traditions. By the seventeenth century, chefs such as François Pierre de la Varenne began codifying recipes and cooking techniques, laying the foundation for a distinctly French culinary identity that departed from earlier foreign influences (Barlösius, 2008). Emphasis on high-quality ingredients, balance of flavors, and refined technique established during this period remains central to French gastronomy.

The Appellation d'Origine Contrôlée (AOC) system reinforces the regional specificity of French products (Lecat & Chapuis, 2017). When Boeuf Bourguignon is prepared with AOC Burgundy wine, it becomes an expression of terroir, linking flavors, ingredients, and culinary techniques to a distinct geographic and cultural heritage.

Originally a rustic, practical stew, it utilized tougher cuts of beef, regional wine, and simple vegetables. The dish reflects French cuisine's ability to transform modest, rural fare into celebrated national staples. Boeuf Bourguignon likely arose as a method to tenderize and flavor inexpensive cuts of meat, providing sustenance for working-class households without compromising quality. Mapie de Toulouse-Lautrec describes the traditional preparation as "housewife-style," in which the ingredients were left to simmer gently while the cook attended to other farm chores —a testament to the labor-intensive life of rural Burgundy (Cloak, 2020).

Over time, Boeuf Bourguignon has evolved from a modest peasant stew into a dish celebrated for its complexity and depth. Contemporary recipes often begin by searing the meat and vegetables separately, enhancing their flavor, followed by slow reduction of the cooking liquid to achieve a thick, luxurious sauce. Some modern preparations incorporate butter or a splash of cognac, enriching both texture and aroma (Cloake, 2020). These adaptations reflect broader trends in French cuisine toward technique-driven experimentation and the professionalization of cooking, as well as the increased leisure of home cooks.

The selection of vegetables has similarly expanded. Early versions relied on baby onions and mushrooms, whereas later recipes include carrots, potatoes, and pearl onions. By the twentieth century, recipes often called for whole joints of fresh beef rather than smaller, tougher cuts, shifting the dish from a frugal stew to a centerpiece (Cloake, 2020). Marinating the beef in red wine for several hours or overnight became standard practice, improving both tenderness and flavor. Bacon is frequently included, a nod to culinary luxury; while pork was domesticated contemporaneously with beef (Smil, 2002), its addition exemplifies the use of multiple meats to enhance flavor and richness.

Global Twists

Approved by the French Chefs themselves...

Anne-Sophie Pic (France): tandoori-spiced bourguignon
Yves Camdeborde (France): adds chocolate + orange zest
Miznon, Paris: serves it in pita bread
Grazia (France): suggests bourguignon sushi rolls
Jamie Oliver: vegetarian twist with mushrooms instead of beef
(Cloake, 2020)

The Recipe

For my family, Beef Bourguignon was always the centerpiece of Christmas Eve. My mum would spend hours in the kitchen, and the rich aroma of wine and simmering meat would fill the house. I have vivid memories of those days, when time seemed to slow and a sense of calm pervaded our home.

The stew itself was slow-cooked, a true labor of love. Occasionally, I would help chop vegetables, but more often I sat contentedly in the living room, absorbed in my Harry Potter books. My grandparents would arrive, and conversation would meander. My papa often told stories of his childhood in Scotland, claiming that he received coal for Christmas – a tale I believed wholeheartedly, which made me feel even luckier for the warmth and treats in our cozy apartment. When we finally gathered around the table, the rich, hearty dish brought us together in shared comfort. I would eat slowly, drifting into a dozy contentment. I understand now that to cook and share a meal with loved ones is, in itself, a profound expression of care.

Ma mère

Ingredients

Beef & Aromatics

- 3 lbs (1.3 kg) stewing beef, preferably Charolais-style or another well-marbled cut
- 3 carrots, sliced
- 1 large onion, diced
- 3 cloves garlic, crushed
- 2–3 sprigs fresh thyme
- 1–2 bay leaves
- Salt & pepper to taste

Wine & Stock

- 750 mL bottle of Pinot Noir (traditionally from Burgundy)
- 2 cups beef stock

Mushrooms & Lardons

- 1 cup pearl onions
- 1 cup mushrooms, halved
- 150 g lardons or diced bacon

For Thickening

- 2 tbsp flour
- 2 tbsp butter

1.) Marinate the Beef

In the spirit of Burgundy's winemaking heritage, marinate the beef overnight in red wine with carrots, onions, garlic, and herbs. This mirrors older rural practices of using wine to tenderize tougher cuts.

2.) Brown the Beef

Drain and pat dry. Sear in a heavy pot until browned on all sides. This step builds the dish's signature depth of flavour.

3.) Build the Base

Add the aromatic vegetables, sauté briefly, then sprinkle with flour. Stir to coat, allowing the flour to create a rich, velvety texture.

4.) Simmer in Wine & Stock

Return the beef to the pot and pour in the wine and stock. Add thyme and bay leaves. Simmer gently for 2–3 hours, until the beef becomes tender.

5.) Prepare the Garnishes

In a separate pan, sauté lardons, mushrooms, and pearl onions until browned.

6.) Combine & Finish

Add the garnishes to the stew and simmer for an additional 20–30 minutes. Adjust seasoning before serving.

Serving Notes

Serve on its own or with crusty bread and plenty of butter.

References

Alexander, D. (2014, December 20). Understanding the terroir of Burgundy part 1.1 limestone: Formation. Diary of a Winebuyer. https://diaryofawinebuyer.wordpress.com/2014/12/20/understanding-the-terroir-of-burgundy/

Barlösius, E. (2008). France. In K. F. Kiple & K. C. Ornelas (Eds.), The Cambridge world history of food (Vol. 2, pp. 1210–1216). Cambridge University Press.

Britannica. (n.d.). Burgundy. In Encyclopaedia Britannica. https://www.britannica.com/place/Burgundy/History

Canadian Charolais Association. (n.d.). History. https://charolais.com/history/

Charolais International. (n.d.). France. https://www.charolaisinternational.com/france

Cloake, F. (2020, August 24). The story behind the classic French dish boeuf bourguignon. National Geographic. https://www.nationalgeographic.com/travel/article/story-behind-classic-french-dish-boeuf-bourguignon

Gade, D. (2000). Cattle. In K. F. Kiple & K. C. Ornelas (Eds.), The Cambridge World History of Food (pp. 489–496). Cambridge University Press.

Lecat, B., & Chapuis, C. (2017). Food and wine pairing in Burgundy: The case of Grands Crus. Beverages, 3(1), 10. https://doi.org/10.3390/beverages3010010

Les Grappes. (n.d.). The different climates of Burgundy. https://www.lesgrappes.com/en/magazine/parlons-vin/oenologie/les-differents-climats-de-bourgogne

Newman, J. (2008). Wine. In K. F. Kiple & K. C. Ornelas (Eds.), The Cambridge World History of Food (Vol. 1, pp. 730–738). Cambridge University Press.

Smil, V. (2002). Eating meat: Evolution, patterns, and consequences. Population and Development Review, 28(4), 599–639. https://doi.org/10.1111/j.1728-4457.2002.00599

Figures

Britannica. (n.d.). Burgundy [Map]. Encyclopaedia Britannica. https://www.britannica.com/place/Burgundy/History

Testani, C. (n.d.). Beef Bourguignon [Photograph]. The New York Times. https://cooking.nytimes.com/recipes/1018528-beef-bourguignon

Fiona Brown. (2021, 2023). Personal photography of our christmas tree and my mother cooking.

Beef Wellington

Under an often cloud-covered sky, the British Isles host a long and rich history of cuisine and culture. England, a country which has seen the rise and fall of kings and kingdoms throughout the last several millennia, has also seen changes in tastes and the importation of ingredients and recipes from around the globe. This amalgamation of culture over a long history has given rise to some staple British foods like fish and chips, the Sunday roast, and the meat pie. However, this long history also means that the origins of some dishes are contested and difficult to trace[1], which is the case for the topic of the article - the beef Wellington. While its origins are difficult to decipher, the importance of beef Wellington for English cuisine is not, with the dish gaining popularity internationally in the mid-20th century as a status symbol[2], and cementing itself as a staple of British cuisine.

Figure 1.

Beef Wellington in the modern era

In the modern era, beef Wellington's notoriety can in large part be traced to the famous American chef Julia Child, who in 1961 included a recipe in her book *Mastering the Art of French Cooking*, and later on her television show *The French Chef*[1]. In this era, the dish became a staple of fine dining, becoming a favourite dish of US Presidents, with a recipe making an appearance in the White House cookbook[1]. For the decades following the Second World War, beef Wellington recipes were published across Europe and North America, with the social status of this era being marked by elaborate and dramatic dinner parties[2]. Beef Wellington was able to make a name for itself at this time due to the complexity of the recipe and the price of the ingredients used in the dish, making it a symbol of social status at dinner parties[2].

Figure 2.

Origins of Beef Wellington

The origins of the beef Wellington are difficult to trace, as the concept of encasing meat in puff pastry had existed for centuries before the beef Wellington[3]. The origins of pastry crust around meat can be traced back to the Romans, who encased

their meats in a mix of flour, oil, and water to preserve the flavours of the meat, although the pastry was not intended to be eaten[4]. The pastry was likely not eaten due to the lack of available fat such as butter or lard which is used in pastries today to add a richness to the flavour[4]. Looking forward from Roman times, we see pastry recipes for pies and tart cases in the earliest known English language cookbook, the *Forme of Cury*[4], which are more similar to the puff and shortcrust pastry recipes which we see today. In the centuries that followed we see the development of hot water crust pastry and hand-formed pies made with wild game[4], and in the 17th century, pastry-making gained notable popularity in France, which extended over to England[4]. Savoury English pastry recipes which predate the beef Wellington were actually seen as working class, with the Melton Mowbray pork pie being a staple of labourers' lunches[4], and the somewhat more famous Cornish pasty becoming the packed lunch of Cornish coal miners[4].

How the Beef Wellington got its Name

The origins of the name of the dish as 'beef Wellington' are often associated with the man for whom the dish is supposedly named - Arthur Wellesley, the first Duke of Wellington[2]. The origins of the name of the dish are unclear however, as it seems to be more of a legend than a fact that the dish is named after the Duke[1]. Arthur Wellesley was an English general who later became the Prime Minister of the United Kingdom[5], and in 1814 was named the Duke of Wellington after his defeat of Napoleon[5]. Five years later in 1820, the Duke began a tradition of throwing a lavish supper to commemorate his victory over Napoleon, however no mention of beef Wellington being served is made in any remaining documents[2]. Some posit that the dish is simply named after him[1], while others argue it was named after him because it was his favourite dish on marches[1], and some claim it was named for a similar look to the original leather Wellington boot[1].

Figure 3.

Regardless of the contested nature of the name of the dish, there are a few key components to almost every beef Wellington recipe that remain unchanged. The main idea for a Wellington is a piece of meat which is wrapped in pastry. The origins of this concept can be traced back to the French dish called the *filet de boeuf en croûte*, which bears a strong resemblance to the beef Wellington, and may have even been the

same dish, but was renamed to the beef Wellington after the 1815 Battle of Waterloo[3]. However, between what is considered the "creation" of the dish in 1815 and its first mention as the modern beef Wellington there is a notable gap, with there only being a few written references to 'Wellington' style dishes. One of these recipes comes from an Italian pastry chef, however, this recipe resembles more of a British mince pie compared to a beef Wellington[2].

The first commonly cited reference to a beef Wellington which resembles what we are used to today comes from a 1903 banker's dinner menu at the Angelus Hotel in Los Angeles[2]. However, there is also a record of the dish being served aboard the steamship Fürst Bismarck in 1899[2].

Figure 4.

What Goes Into Beef Wellington?

The first key ingredient of beef Wellington is highlighted in its name - beef. The domestication of cattle began in the 9th millennium BCE in Southwest Asia[6], with domesticated cattle being introduced into Europe during the Neolithic transition[6], likely brought and traded by Neolithic farmers[6]. While there were wild ancestors of cattle in Britain, research suggests that these cattle were not domesticated, and instead the ancestors of domesticated cattle were brought over from Europe[7], likely from the Paris and Rhine Basins[7]. In the British Isles, we see the creation of prominent beef breeds of cattle such as Herefords, Angus, and Beef Shorthorns[8], helping to grow a reputation for quality beef in the region and becoming a source of national pride[9]. However, while beef had been a staple of the British diet for centuries[9], beef was also seen as a symbol of luxury, with beef making a regular appearance in meals for people of status[10], and with the rising cost of meat in modern society, this continues to be true.

Within puff pastry, the key ingredient is wheat, which was domesticated around 10,000 years ago in the mountainous regions surrounding the Fertile Crescent in the Middle East[11]. Wheat cultivation was developed around 10,500 years ago in Anatolia, and made its way to the Balkans 8,000-9,000 years ago, then on to France and the Rhineland 7,500 years ago[12]. Cultivation of cereal grain made its way over to mainland Britain around 6,000 years ago, with evidence suggesting that domesticated wheat arrived 2,000 years before it was farmed in the region[12].

As mentioned previously, pastry as we know it today did not begin to show up until the late medieval period, with puff and shortcrust pastry appearing at the end of the 14th century in the earliest known english language cookbook[4], with the development

of pastry techniques by British bakers taking place in the 17th century[4]. The development of puff pastry is thought to have happened accidentally in 1645 by a French apprentice painter and cook Claude Gelée, with the earliest recorded British recipe of 'puff paist' coming from Hannah Bisaker in 1692[4].

Figure 5.

Have these ingredients evolved?

Prior to the 18th century, cattle breeding in England was often based on little more than chance encounters, which often ended up in regional diversity and differing characteristics between breeds[13]. This changed with Robert Bakewell, a pioneering figure in livestock breeding who set the groundwork for modern breeding practices[13]. He used methods and practices which sought out specific traits within the offspring in order to maximize desired characteristics[13]. For example, with his cattle he sought higher fat content and decreased bone density as that is what fit the market and diets at the time, and while that would not meet the tastes of the modern lean cuts of beef, his selective breeding methods helped to create many of the prized beef cuts we seek out today[13].

Figure 6.

The wheat which spread out of the fertile crescent 8,000 to 9,000 years ago was bread wheat, a species of wheat formed through hybridization (a process of crossbreeding different distinct lineages of wheat artificially[14]), with this kind of wheat being able to spread from this area due to its large and tasty seeds, high baking quality, and its ability to acquire new traits[15]. From this point wheat was bred for superior end-use quality to better fit the needs of baking[16]. Along with more developed wheat varieties the industrial revolution gave rise to different milling techniques and machines which could purify wheat grains to remove the germ of the wheat completely, leading to the more widespread adoption of white flour for baking as we know it today[17].

How did the Environment Shape These Ingredients?

Britain has a climate which is well-suited for raising livestock, with their temperate climate producing an abundance of rainfall, which in turn makes up 85% of the water consumed by cattle[18]. Their temperate climate is also well suited to grow the abundance of grass there, of which approximately 90% of the feed consumed by their cattle is grass[18]. British soil and climate also mean that bread wheat, which is the most cultivated cereal grain in the region, is able to grow as a rainfed crop[19]. This differs from other parts of the world which receive less rainfall and/or have lower moisture-retentive soils and thus have to rely on irrigation to grow their wheat[19].

However, the climate in Britain also meant that it was very difficult to grow many kinds of spices, and because of this they were often only enjoyed by the elites who could afford the cost after they had been imported[20]. These spices were used by those who could afford them to help mask the scent of rancid meat while also adding flavour to their dish[20]. Overall spices were a luxury the average peasant couldn't afford, with the average peasant instead eating unseasoned food, with one of the most notable and common dishes for the average person being pies. Once pastry became more well-established in Britain, we see the development of regional differences take shape in their pies. As mentioned previously the Cornish pasty was a staple of the Cornwall region for miners, with the dish travelling well, not requiring any cutlery to eat, and the crust serving as a handle while eating with dirty hands[21].

Figure 7.

How did Culinary Practices Shape the Beef Wellington?

Historically meat was seen as a sign of wealth and status in England, with the average diet of even the wealthy not including much meat by today's standards[22]. The prominence of large roasts on special occasions in medieval England was well documented among upper-class people, and was seen as an important event and a display of wealth[22]. This makes sense when we consider the status of the modern Wellington, which, when served at a dinner party, can be seen as a sign of status. Additionally, when you consider the rise of dinner parties in the 17th and 18th centuries[23] you begin to gain a better understanding of the beef Wellington's rise in popularity.

While the beef Wellington remains a staple of luxury, that doesn't mean there haven't been any variations to the traditional recipe. People have changed out the meat for all manner of things, from pork fillets to chicken breasts, and pâté to beets[2]. However, the popularity of beef Wellington didn't last forever, and as modern culture shifted away from suits and ties, food followed suit[24]. These aforementioned changes to the traditional beef Wellington

breathe new life into the dish, and also help to make it more cost accessible.

Figure 8.

Is There a Place for Beef Wellington in the Future?

While the Beef Wellington may not be as popular as it once was, that doesn't mean that it will fade into obscurity. The difficulty and skill needed to make a proper beef Wellington mean it will always remain a sign of skill amongst chefs, and the eye-watering pricetag means its place as a symbol of luxury is set for the foreseeable future. From its contested origins, the beef Wellington has and will remain a symbol of wealth and a staple of British cuisine.

Recipe

Ingredient list[25]:

- 1 center-cut beef tenderloin
- 2 and 1/2 teaspoons high-heat oil
- 2 tablespoons prepared horseradish
- 1 tablespoon Dijon mustard
- 1 pound mushrooms (button, cremini, portabello, or a mix)
- 4 tablespoons unsalted butter
- 2 shallots
- 2 teaspoons fresh thyme leaves
- 1/2 cup St. Remy VSOP brandy
- 1/2 cup heavy cream
- 2 teaspoons soy sauce
- 1 sheet phyllo dough
- 1/4 pound prosciutto, sliced paper-thin
- 14 ounces frozen homemade puff pastry
- 1 egg
- sea salt and pepper
- 1 bunch chives

Directions[25]:

1. Heat oil in a pan until smoking, then sear the entire exterior to a golden brown crust.
2. Mix horseradish, dijon mustard, and black pepper and coat the entire exterior of the tenderloin.
3. Place chopped mushrooms into a buttered pan until brown, add shallots and thyme, then add the brandy, heavy cream and soy sauce until the mixture congeals.
4. Layer two pieces of plastic wrap, then phyllo dough and prosciutto, leaving a 2-inch edge on all sides, and cover with the mushroom mix.
5. Roll tenderloin tightly, then wrap in more plastic wrap and place in the fridge.
6. Roll puff pastry into a rectangle, brush partially with egg, add tenderloin wrap and then roll and fold.
7. Brush exterior with egg and score pastry, then bake at 425°F until internal temp reads 110°F for a rare roast.
8. Carve and garnish with chives and coarse salt. Finally, plate and serve!

References

1. McNamee, G.L. (2025, October 4). *Beef Wellington*. Encyclopedia Britannica. https://www.britannica.com/topic/beef-Wellington
2. Bilton, S. (2024, September 21). *How beef Wellington became a British classic*. National Geographic. https://www.nationalgeographic.com/travel/article/how-beef-wellington-became-a-british-classic
3. Gordon Ramsay Restaurants. (2022, September 28). *The history of beef Wellington is well Worth celebrating.* https://www.gordonramsayrestaurants.com/inspiration/why-the-history-of-beef-wellington-is-well-worth-celebrating-beef-wellington-week
4. Gazzard, C. (2015, October 21). *The History of Pastry*. Great British Chefs. https://www.greatbritishchefs.com/features/history-of-pastry
5. Pakenham, E. (2025, October 17). *Arthur Wellesley, 1st duke of Wellington*. Encyclopedia Britannica. https://www.britannica.com/biography/Arthur-Wellesley-1st-Duke-of-Wellington/Role-in-the-cabinet
6. Scheu, A., Powell, A., Bollongino, R., Vigne, J. D., Tresset, A., Çakırlar, C., Benecke, N., & Burger, J. (2015). The genetic prehistory of domesticated cattle from their origin to the spread across Europe. *BMC Genetics*, *16*, 54. https://pmc.ncbi.nlm.nih.gov/articles/PMC4445560/
7. Cummings, V., & Morris, J. (2018). Neolithic Explanations Revisited: Modelling the Arrival and Spread of Domesticated Cattle into Neolithic Britain. *Environmental Archaeology*, *27*(1), 20–30. https://doi.org/10.1080/14614103.2018.1536498
8. Freeman, A.E. (2017, December 21). *Animal Breeding*. Encyclopedia Britannica. https://www.britannica.com/science/animal-breeding
9. Renton, A. (2012, November 5). *English beef: a proud tradition*. The Guardian. https://www.theguardian.com/lifeandstyle/2012/nov/05/english-beef-a-proud-tradition
10. Hinkson, H. R. (2011). *Redeeming Proper Taste: Food as an Emblem of Luxury in Eighteenth Century England.* Liberty University https://digitalcommons.liberty.edu/cgi/viewcontent.cgi?article=1176&context=masters
11. Charmet, G. (2011). Wheat domestication: Lessons for the future. Comptes Rendus. *Biologies, 334*(3), 212–220. https://doi.org/10.1016/j.crvi.2010.12.013
12. Larson, G. (2015). How wheat came to Britain. *Science, 347*(6225), 945–946. https://doi.org/10.1126/science.aaa6113
13. Ness, B. D. (2023). *Beginning of Selective Livestock Breeding*. EBSCO. https://www.ebsco.com/research-starters/history/beginning-selective-livestock-breeding
14. Lepp, K. (2024, January 10). *Opportunities and Challenges of Hybrid Wheat*. Seed World. https://www.seedworld.com/us/2024/01/10/opportunities-and-challenges-of-hybrid-wheat/
15. Levy, A. A., & Feldman, M. (2022). Evolution and origin of bread wheat. *The Plant Cell, 34*(7), 2549–2567. https://doi.org/10.1093/plcell/koac130
16. Kiszonas, A. M., & Morris, C. F. (2017). Wheat breeding for quality: A historical review. *Cereal Chemistry, 95*(1), 17–34. https://doi.org/10.1094/cchem-05-17-0103-fi
17. Great British Chefs. (2019, March 18). *A History of Flour.* Great British Chefs. https://www.greatbritishchefs.com/features/history-flour-milling-baking
18. Stanley, J. (2019, November 3). British farmers are not the enemy in the battle against the climate crisis. *The Guardian*. https://www.theguardian.com/commentisfree/2019/nov/03/uk-farmers-climate-crisis-livestock-sustainable
19. El Chami, D., Knox, J. W., Daccache, A., & Weatherhead, E. K. (2015). The economics of irrigating wheat in a humid climate – A study in the East of England. *Agricultural Systems, 133*, 97–108. https://doi.org/10.1016/j.agsy.2014.11.001
20. Thomas, L. (n.d.). *Variety Is The Spice of Life: Challenging The Great Myth of Spices In British Cuisine*. Eate Collective. https://www.eatecollective.com/journal/spices-in-british-cuisine
21. Proper Cornish. (n.d.). *History of the Cornish Pasty.* Proper Cornish - the Pasty Makers https://www.propercornish.co.uk/history-of-the-cornish-pasty/
22. Cumming, N. M. (n.d.) *The relationship between meat consumption and power in late medieval and early modern England*. University of Glasgow. https://www.animalsandsociety.org/research/sloth/sloth-volume-5-no-1-winter-2019/the-relationship-between-meat-consumption-and-power-in-late-medieval-and-early-modern-england/
23. Overture London. (n.d.). *The History of Dinner Parties: A Tradition of Elegance and Conversation.* https://ouverturelondon.com/blogs/journal/the-history-of-dinner-parties-a-tradition-of-elegance-and-conversation

24. Faries, D. (2023, January 6). *Burning Question: Whatever happened to beef Wellington?* Monterey County NOW. https://www.montereycountynow.com/blogs/food_blog/burning-question-whatever-happened-to-beef-wellington/article_f5c9bed0-8e06-11ed-b271-6b6d002365fa.html#
25. Kenji López-Alt, J. (2025, September 28). *The ultimate beef Wellington recipe*. Serious Eats. https://www.seriouseats.com/the-ultimate-beef-wellington-recipe

Figures

Borscht: a Concentration of Soup and Culture

Figure 1:

An Intangible Icon

Very few dishes have had as many variations and meant as much to such a vast group of people as the dish or dishes commonly known as borscht in the west has. The evolution of this humble dish is broad enough to be a food culture of its own, being shaped over the course of more than a millenia, by agricultural and industrial advancements and the climates its creators call home, from eastern europe to north america and beyond. The “traditional” borscht that is commonly thought of today is a vibrant red stew of beets and cabbage with various types of meat, however in almost all varieties of this dish, the cabbage and sour cream is never to be forgotten about. Today, this core borscht is predominantly Ukrainian with it being of utmost cultural significance to the nation's people and those of Ukrainian descent. The practice of making borscht and the sharing of individual recipes exemplifies cultural preservation and the importance of shared identity especially in the modern day. The significance of borscht is so great that it was acknowledged in 2022 by UNESCO when “the culture of Ukrainian borscht cooking” was added to the organizations list of intangible cultural heritage in need of urgent safeguarding[1]. This was done in part due to the onset of the Russian invasion and subsequent military campaign in Ukraine which is being performed with the ultimate goal of annexing Ukraine and erasing its unique cultural heritage.

Figure 2:

the Ukrainian trident (tryzub) dates back to at least the 10th century (almost as old as borscht!) and is one of the 3 official symbols of Ukraine, it symbolizes the nations power and ancient roots[2]

From medieval to the Borscht Belt

The earliest dish that can be attributed to borscht's culinary line came about somewhere in the 5th to 9th century with Ukraine generally being placed as its region of origin[3]. This proto borscht was extremely different in taste and look from modern versions of the dish with it being a broth cooked from the fermented stems, leaves and flowers of the cow-parsnip or hogweed (Heracleum sphondylium). The fermented plant at the time was considered a hangover cure and was cooked with a meat broth of some type, sour cream and egg yolks to become the first borscht's; from this came the name Borscht from the proto-slavic word for cow-parsnips[4]. These early borscht's were kept for centuries as a dish relegated to the plates of poor rural populations even as it spread to poland and belarus who used borscht as a survival food where many ingredients could be included to allow individuals to make it through a particularly harsh winter. Borscht only really managed to bridge the social divide in the 17th century as agricultural practices expanded and economic decline left nobles more inclined to try common local dishes [5]. This increase in consumption for borscht both geographically and through social strata led to the many variations of the dish we see today. Stanisław Czerniecki of the Polish-Lithuanian Commonwealth published the Compendium ferculorum in 1682 which contained many substitutes for the original sour hogweed along with some additions.

These additions ranged from kissel, a fermented mixture of water and grain to make white borscht, and sorrel to make green borscht, but arguably the most important addition of this period was cabbage, sometimes in the form of sauerkraut, which is still prevalent in many types of borscht today. Another common mainstay in recipes is beets, which were brought into the dish later on as the varieties sweet and soft enough to be added only arrived in the region in the 1600s. Common legends about this first beet containing “Red Borschts” are that they were made by Cossacks during sieges in either 1695 or 1683, but in reality, these legends are most likely revisionist propaganda; the first red borschts were probably made by ethnic Ukrainians under Russian rule in the late 17th or early 18th century east of the Dnieper.

Figure 3:

My Great grandmother, Hildegard Klassen who used to make me Ashkenazi red borscht when I was little

These red borschts also almost always include sour cream; this ingredient is always consistent, either ladled on top or stirred in. In terms of the split between borschts containing beets versus cabbage, central Ukrainians tend to enjoy it with cabbage while westerners are partial to beets. Tomatoes and potatoes then began to be added to borschts in the 18th and 19th centuries. Even though they had been common in Western Europe and the Americas for centuries, it was only now, with heightened globalization and trade, that these ingredients began mixing with borscht to varying degrees. Around this same time, borscht began attaching itself to religions, specifically Christianity and Judaism. In part due to its simplicity, Christians began incorporating different variations of borscht for fasts and liturgical practices. Red borscht, vegetarian or with fish stock, was and is eaten in Orthodox regions on Christmas Eve, and white borscht could be eaten during Lent. Due to this religious connection, borscht in Ukraine has also become a favored meal during funerals. The recipe for borscht I will be providing comes from its Jewish heritage. Many Jews who lived in Poland, Ukraine, and Russia, especially Ashkenazi Jews, utilized different varieties of red and vegetarian borschts, hot and cold, for Passover and Shavuot.

Hildegard's Borscht Recipe

Ingredients:

1 large can of tomatoes
(whichever texture you prefer - whole tomatoes are traditional)
1 large onion - chopped
1+ lbs ground beef - browned
1 900 ml (tetra pack) of beef stock (or about 2-3 cups of water)
1 Bay leaf - whole
2 cloves garlic – finely chopped
1 – 2 Tbsp sugar - important
1 cabbage (medium) - finely chopped
1 – 2 Tbsp caraway seeds
1 Tbsp oil or butter (for cooking cabbage – see directions)
salt and pepper - to taste
1 – 2 cans tomato paste if you want the borscht thicker
sour cream

Directions
Brown beef and onions in a large soup pot.

Add other ingredients (except cabbage). Let simmer.

In a large frying pan, add about 1Tbsp. of oil or butter and stir cabbage until light golden colour.

When the cabbage is starting to get tender, add it to the large pot. Simmer for 1 hour, gently stirring from time to time.

If you want the soup thicker/richer, add tomato paste at the end. Serve hot with a dollop of sour cream on top.

Figure 4:

cooked cabbage,
green or purple may be used

Figure 5:

It was these Ashkenazi Jews fleeing persecution in the 20th century who brought red borschts to the United States and Canada, mainly the varieties focusing on tomato, cabbage, and sour cream. As time went on, North American tastes began to blend into the dish, leading to modern iterations being full of meats like ground beef. My great-grandmother Hildegard Klassen was one of these individuals of Ashkenazi background who immigrated to Canada as a child and brought her family's borscht with her that I enjoy to this day.

Figure 6:

A simple yet beautiful plant, the purple head cabbage

Head Cabbage: the Best Brassica

Cabbage is one of borscht's most important ingredients in the modern world. Its modern forms are the result of some of the most intensive agriculture and artificial selection to ever occur. The plant from which the cabbage is derived is Brassica oleracea a small, weedy plant that is native to the coastal mediterranean region and preferred to grow upon limestone outcroppings [7]. We do not know how far back exactly the wild variety of the plant has been cultivated but greek writings from the 6th century BCE and sanskrit writings from 4000 years ago show that this plant has evolved alongside and been a part of human agriculture for millennia [8].

Artificial development began here, when farmers began noticing that wild oleracea varied in its morphology; some had larger leaves, others terminal buds or flowers. With this, humans do as they have done with any organism they have had agricultural domain over, they began to breed for what they wanted to eat. Kale and collard greens were likely the first to be developed as they are the least derived from the wild type plant and there are writings of what are likely them in greece around the 4th century BCE [7]. Kale and collard greens were selected for having larger leaves while the modern head cabbage is the result of farmers slowly enlarging the plant's terminal bud. After enough breeding, the head cabbage was established as a domestic vegetable by at least the 12th century in the mediterranean [7]. Hard headed cabbages were being developed in northern Europe around the same time and became a staple very quickly due to their large waxy leaves resulting in a hardy vegetable that is high in nutrition and frost resistant [9].

This frost resistance and hardiness is a major part of how the vegetable became such a staple of slavic food and especially borscht. Ukraine was very suited to growing Head cabbage due to its chernozem belt, a range of humus-rich earth that offers some of the world's most fertile soils while being in a climate mild enough that resistant crops were necessary to take full advantage of it. Head cabbage was absolutely perfect for this region and was common around northern Europe, especially Ukraine by the late middle ages [7]. Head cabbage is nutrient dense, reliable under harsh conditions and importantly, ferments readily which allows for the creation of sauerkraut, another culinary staple of northern europe and useful for its high vitamin C content which lowered the chance of communities suffering from scurvy. Head cabbage fits perfectly into the ecological and cultural context of Ukraine so it was no wonder that it became a delicious staple in borscht.

Smetana: top of the dish and my list

Smetana or sour cream is absolutely essential to Ukrainian food as a whole and even more so to borscht. Sour cream is a large part of the sensory identity of Ukrainian food with its trademark silky dollops on or around almost all major dishes. The tangy fattiness of it softens acrid beets and tomatoes, adds much needed fat to largely vegetable based dishes and acts as a wonderful and motivating flavorant that lasts through less abundant seasons. The history of fermented dairy products goes about as far back as our domestication of animals roughly 10000 years ago.

Figure 7:

modern sour cream (the higher fat the better)

During early milking, hygiene standards were minimal without any modern knowledge of germ theory or food safety and as such, it was commonplace for milk to rapidly go sour after a few hours [11]. The bacteria that caused this spoilage differed as it could have been picked up from the milkers hands or from local flora depositing bacteria on the udders. Along with the various organisms now present in the fresh milk, region and temperature played a role in exactly what type of fermentation would occur. Most commonly in milk are lactic organisms which can rapidly take over and cause that characteristic sour note [11]. Much like the artificial selection of the cabbages, humans took over from here. Most likely driven by curiosity, desperation or a mix of these factors, humans began to consume these fermented milk products and as they became accustomed to certain flavour profiles, they learned that if one was to add part of a previous batch of soured milk to a fresh source, a pleasant outcome would become more likely [11].

This slow trial and error eventually became the backbone of all milk fermenting practices world wide. These processes would eventually be carried to slavic pastoralists who, without modern refrigeration technologies, relied on fermentation to preserve milk, turning it into cheese, yogurt and cultured creams [12]. The practice of sour cream creation fit readily into the rural slavic community structure where cows and goats were kept at home for milk production and byproducts like the skimmed cream were fermented in cool clay vessels instead of being wasted. Therefore sour cream became a symbol of a food culture based on hardiness and survival where preservation and environmental strains molded modern food culture.

Borscht in space

On a quick tangent, borscht is so popular and important to the cultures that consume it that it has been independently brought to space on both sides of the iron curtain. The soup was semi regularly brought by soviet cosmonauts [13]. Borscht has also more recently been brought up by NASA astronauts such as Randy Breznik who has enjoyed the dish in space.

Figure 8:

during the handshake in space event in 1975, American astronauts Thomas Stafford (left) and Donald Slayton (right) sample borscht brought to space by the Soviet Soyuz crew.

Citations:

[1] Davies, Alys. "Borsch Soup in Ukraine Added to Unesco Endangered Heritage List." BBC Breaking News, World News, US News, Sports, Business, Innovation, Climate, Culture, Travel, Video & Audio. Last modified July 1, 2022. https://www.bbc.com/news/world-europe-62013362.

[2] Luzan, Yevhen. "Ukrainian Trident (Tryzub)." ukraine.ua. Accessed November 30, 2025. https://ukraine.ua/stories/trident-tryzub/.

[3]https://www.britannica.com/topic/borscht

[4] Lee, A. (2018). BORSCHT. History Today, 68(8), 86

[5] McClure, Jennelle. "Borscht: A Russian Staple." Food In History. Last modified April 5, 2023. https://wordpress.kpu.ca/foodhistory/2023/04/05/borscht-a-russian-staple/.

[6] "Borscht." Sites at Penn State. Last modified January 15, 2025. https://sites.psu.edu/passion25/2025/01/15/hello-world/.

[7] Jeanne Osnas, "The Extraordinary Diversity of Brassica Oleracea," The Botanist in the Kitchen, last modified August 14, 2018, https://botanistinthekitchen.blog/2012/11/05/the-extraordinary-diversity-of-brassica-oleracea/.

[8] "The History of Brassica Oleracea: 300+ Versions of a Single Plant | The Seed Collection." TheSeedCollection. Last modified May 31, 2024. https://www.theseedcollection.com.au/the-history-of-brassica-oleracea.

[9] "Cabbage | Leafy Greens, Cruciferous Vegetables & Edible Heads | Britannica." Encyclopedia Britannica. Last modified September 27, 2025. https://www.britannica.com/plant/Brassica-oleracea.

[10] Bonne, Kathelijne. "The Black Gold of Ukraine and the Most Fertile Soils in the World." Gondwanatalks. Accessed November 30, 2025. https://www.gondwanatalks.com/l/the-black-gold-of-ukraine-and-the-most-fertile-soils-in-the-world/.

[11] Born, B. (2013). Cultured/sour cream. In R. C. Chandan & A. Kilara (Eds.), Manufacturing Yogurt and Fermented Milks (pp. 381–391). John Wiley & Sons. https://doi.org/10.1002/9781118481301.ch18

[12] "Discover Sour Cream: The Tangy Dairy Loved Worldwide." Rimping.com. Last modified May 23, 2025. https://www.rimping.com/blog/6982/sour-cream-history-european-origin.

[13] "45 Years Ago: Historic Handshake in Space." NASA. Last modified August 22, 2023. https://www.nasa.gov/history/45-years-ago-historic-handshake-in-space/.

[14] Вадим, Лубчак. "Borscht in Zero G: NASA Astronaut Reveals Enjoying Ukrainian Food in Space." Freedom. Last modified March 16, 2018. https://uatv.ua/en/borscht-zero-g-nasa-astronaut-reveals-enjoying-ukrainian-food-space/.

Image Citations:

figure 1: photo taken by myself

figure 2: official coat of arms taken from: Luzan, Yevhen. "Ukrainian Trident (Tryzub)." ukraine.ua. Accessed November 30, 2025. https://ukraine.ua/stories/trident-tryzub/.

figure 3: family photo taken by my mother

figure 4: photo taken by myself

figure 5: photo taken by myself

figure 6: digital drawing by my girlfriend Sitka

figure 7: photo taken by myself

figure 8: "45 Years Ago: Historic Handshake in Space." NASA. Last modified August 22, 2023. https://www.nasa.gov/history/45-years-ago-historic-handshake-in-space/.

CORNISH PASTY

From Cornish mines to a Cabin in the Selkirks

At first glance, a Cornish pasty looks modest: a golden, D shaped hand pie with a thick crimped edge.[1] Cut it open and the filling is not modest at all: beef, swede (rutabaga), potato, and onion crammed into a tight pocket of pastry.[1] That design is pure problem solving. It was built for the copper and tin mines of Cornwall, where workers needed a cheap, sturdy meal that could ride down a shaft, stay warm in a lunch pail, and be eaten fast with dirty hands.[2]

©Sparveriuspict via Getty Images

Today the pasty turns up behind glass in bakeries across Britain and in mining towns half a world away.[1] In my family it landed somewhere stranger still: at a cabin on Priest Lake in northern Idaho, where a former miners' lunch now shows up as celebration food.

BEYOND THE CRUST: POTATOES AND SWEDE

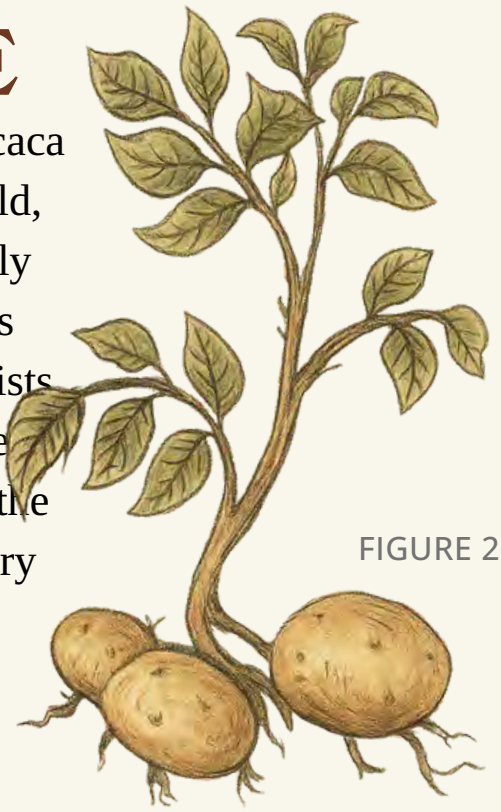


FIGURE 2

Indigenous farmers domesticated **potatoes** around Lake Titicaca between 8000 and 5000 BCE, developing tubers suited to cold, high-altitude conditions.[3] Modern cultivated potatoes typically have four chromosome sets rather than two, offering breeders more genetic diversity but less predictability.[4] Spanish colonists introduced potatoes to Europe in the sixteenth century, where they were initially viewed as exotic or emergency food.[3] By the eighteenth and nineteenth centuries, they had become a dietary staple due to their high yields and storage capability.[3] In Cornwall and western Britain, potatoes became essential in working-class cuisine, particularly in enclosed dishes like pasties.[5]

FIGURE 3

Swede (or rutabaga) arrived later than potatoes.[6] Botanists classify it as Brassica napus, likely a turnip-cabbage hybrid from northern Europe first documented in the early 1600s.[6] Its ability to thrive in cool, wet climates, store for months, and feed both humans and livestock made it valuable in marginal farming areas.[7] Across northern Europe and Britain, it became known as a “poor” or wartime vegetable, appearing in soups and stews when other foods were scarce.[8] The naming varies: “swede” or “turnip” in British English, “rutabaga” in North America.[9] In pasties, swede contributes sweetness, moisture, and bulk, making it an ideal complement to potatoes.

Swede, rutabaga, turnip?

The yellow fleshed root in this pasty goes by different names. In Cornwall and much of the United Kingdom it is usually called swede or “Swedish turnip,” and in some dialects it is simply called turnip.[9] In North American English the same vegetable is almost always sold as rutabaga.[9] All of these names refer to Brassica napus, a hardy brassica grown for its swollen root, and in this piece “rutabaga” and “swede” are used for the same crop.[6] [9]

MINES AND MEALS

From the 1700s to the early 1900s, Cornwall and West Devon were shaped by deep copper and tin mining.[10] Tall engine houses dotted the hills, and great heaps of waste rock rose beside them.[10] Life in the mines was cramped and dangerous, and workers relied on simple, sturdy food that could be carried underground.[2] Out of this mining belt, shown on the map below, grew the Cornish pasty, a hand held meal that stayed warm for hours and could be eaten quickly without stopping work.[2]

Devon Redruth, in west Cornwall, layed near the centre of this industrial landscape and became one of the richest copper districts in Britain.[11] Even so, most miners' families lived in small houses close to the workings and relied on cheap, filling food.[11] My second great grandfather, James Hugo, worked as a tin miner in this Redruth world of engine houses and cramped terraces, carrying pasties with him in a lunch pail.

The Cornish pasty has deep roots in the history of the British Isles. Early mentions of "pasties" appear in thirteenth century English household accounts, where they were recorded as meat filled pies served to nobles.[2] Later stories from Cornwall shift the scene to mine country: D shaped pasties packed with meat, potatoes, and other root vegetables, finished with a thick crimped edge that miners could hold with dirty hands.[2] By the nineteenth century this version had become a common meal in mining towns across Cornwall and West Devon.[2]

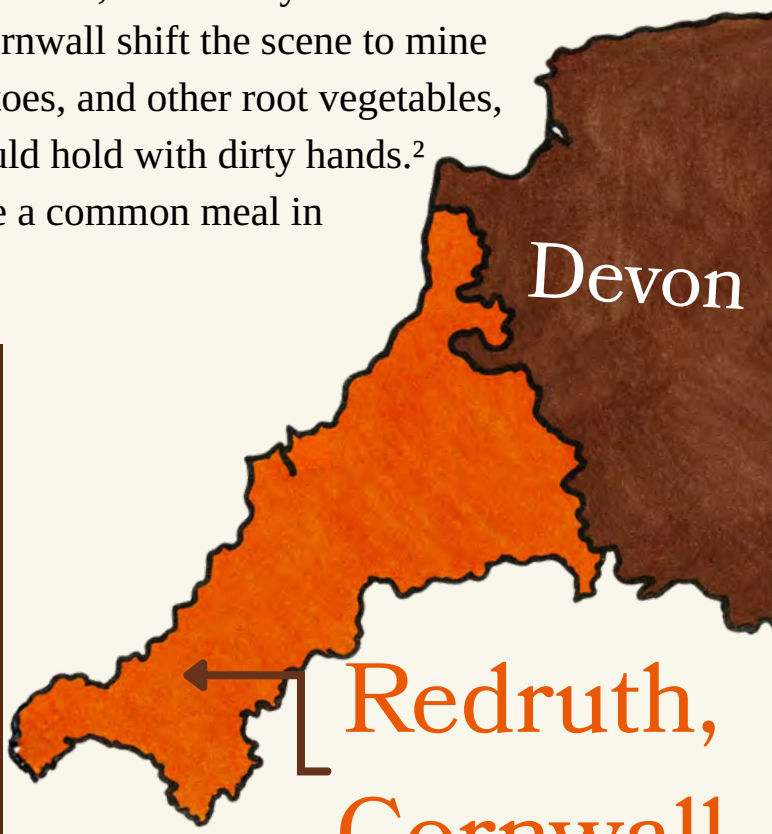


FIGURE 4

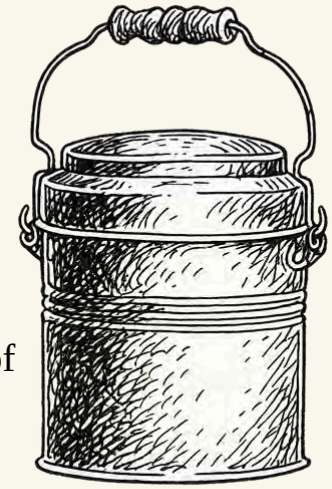
As of 2011: Under UK Protected Geographical Indication (PGI) rules, "Cornish pasty" can only be used for pasties made in Cornwall, in a D shape with a side crimp, filled with beef, potato, onion, and swede, and baked from raw ingredients.[1]

FIGURE 5

More than a century after my second great grandfather, James Hugo, worked as a tin miner near Redruth in Cornwall, my family still bakes the pasties he carried as an everyday mine lunch. My grandmother Gma makes her Cornish pasties the way she was taught by her aunt, Florence "Flossie" Hugo, my great grandaunt, who learned the recipe from her mother, my second great grandmother Eliza Lily Matthews. In our family stories, Eliza baked pasties for James and their children in Cornwall and, after she brought the family to Butte in the early 1900s, likely made and sold pasties to miners there to support the household. That is the line that runs from Eliza's kitchen and James's shifts underground to the pasties Gma now bakes them for special trips at Priest Lake.

FROM CORNWALL TO BUTTE

By the late nineteenth century, Cornish hard rock miners were leaving Britain for new metal camps overseas.[12] One of these destinations was Butte in southwestern Montana, widely known as "the Richest Hill on Earth."[13] After rich copper deposits were opened in the 1860s, Butte drew migrants from across Europe and North America, including large numbers of Irish and Cornish miners whose underground skills were in demand.[13] My own family joined this movement when my second great grandmother, Eliza "Lilly" Matthews, left the Redruth district with her seven children and immigrated to the United States around 1903.



Note. illustration of a miner's lunch pail, where pasties were commonly carried.
FIGURE 6

FIGURE 7

"LETTERS FROM 'OME"

Underground, miners carried their meals in oval lunch pails like the one shown here, stacked in three levels: coffee in the bottom, a tray with a pasty in the middle, and cake or pie on top.[14] During breaks they set the pails near a candle flame so the coffee reheated and the pasty inside warmed through.[14] Cornish miners in Butte brought the pasty with them, and it quickly became a standard underground meal that miners from other backgrounds also adopted.[14] In local slang the pasty was a "letter from 'ome," a phrase recorded in Butte folklore collections, church histories, and my own family stories.[15] The thick crimped crust still acted as a handle for dirty hands, and some accounts describe miners breaking that edge off and throwing it away at the end of the meal as an offering to the rats and spirits that shared the workings.[15]

SISSON-HUGO CORNISH PASTY

Filling:
700–800 g beef chuck, diced
4 med. floury potatoes, diced
1 sm. swede/rutabaga, diced
2 parsnips, diced
1 lg. yellow onion, finely diced
3–4 cloves garlic, minced
2 tbsp. fresh rosemary (or 2 tsp. dried)
2 tsp. salt (to taste)
1 tsp. black pepper
Optional: ½ tsp. dried thyme or mixed herbs
3–4 tbsp. cold butter, cut into pieces for dotting inside pasty.

Pastry:
Makes 8 large pasties
4 c all-purpose flour
1½ tsp fine salt
1 c cold unsalted butter or lard (cubed)
½ c cold vegetable shortening
¾ to 1 c very cold water (added gradually)
1 egg (beaten with 1 tbsp milk or water)

Substitutions:
If swede/rutabaga is unavailable, use extra potato and parsnip or a mix of potato and carrot.
For lower beef content, reduce meat slightly and add more root vegetables; the pasty will remain intact.

Steps:

Prepare pastry: Mix flour and salt, rub in cold butter and shortening until crumbly, add cold water to form dough, shape into disks, wrap, and chill.

Make filling: Combine diced beef, potatoes, swede, parsnips, onion, garlic, rosemary, salt, pepper, and optional herbs in a bowl.

Heat oven: Preheat to 200 °C and line baking trays with parchment.

Shape pasties: Divide pastry into 8 pieces, roll into circles (18–20 cm).

Fill and crimp: Spoon filling onto one half, dot with butter, fold over, seal edges, crimp, and cut a steam slit.

Glaze and bake: Brush with egg, bake at 200 °C for 20 mins, reduce to 180 °C for 25 mins until golden and bubbly.

Rest and serve: Let pasties rest for 10 minutes before serving.

From Our Family To Your's

Pasties, like any local dish, do not stay put. They move with the people who make them, carrying traces of the places they pass through, from Cornish mine works and Butte hill to the shoreline of Priest Lake. When I bake this one, I am not only feeding myself or my family at the cabin; I am working with the same dough, roots, and heat that linked my relatives to those landscapes, keeping a small piece of Eliza's, Florence's, and Lynne's journey alive in what we eat and where we gather. In that sense, the pasty is more than a recipe. It is a record of how our bodies, histories, and the places we inhabit have been braided together.

Back row (Left-Right): My cousin Anna, G'ma (Lynne Hugo-Sisson, G'pa (Larry Sisson), cousin Parker, cousin Ryan.
Front row (Left-Right): Me at the age of 7 or 8, my sister Stella behind me, my cousin Margot, and my cousin Shain.

FOOTNOTES:

[1] Pasty definition, ingredients, PGI rules, spread in Cornwall
Used in: Page 1 (pasty description, ingredients, bakeries), Page 3 PGI paragraph.

Cornish Pasty Association. (n.d.). About the pasty. Cornish Pasty Association. https://www.cornishpastyassociation.co.uk/about-the-pasty/

Department for Environment, Food and Rural Affairs. (2021). Cornish pasty: Product specification (PGI). GOV.UK. https://www.gov.uk/protected-food-drink-names/cornish-pasty

[2] Medieval pasties and miners' portable meal
Used in: Page 1 "built for the copper and tin mines", Page 3 "thirteenth century household accounts," miners' D-shaped lunch.

Historic UK. (n.d.). The Cornish pasty. Historic UK. https://www.historic-uk.com/CultureUK/The-Cornish-Pasty/

[3] Potato domestication and arrival in Europe
Used in: Page 2 sentence on Lake Titicaca, 8000–5000 BCE, and the intro to Europe and eventual staple.

Potatopro. (n.d.). History of the potato: Domestication and early cultivation. Potatopro. https://www.potatopro.com/about/history-potato

[4] Potato genetics – tetraploid, harder to breed
Used in: Page 2 "four chromosome sets rather than two, more diversity but less predictability."

Potatoes and Pests. (2024, March). Breeding for nematode resistance [Newsletter]. Potatoes and Pests. https://potatonematodes.org/wp-content/uploads/2024/03/PAPAS_March_Newsletter_Final.pdf

[5] Potatoes in Cornish / British working class diets
Used in: Page 2 "In Cornwall and western Britain, potatoes became essential in working-class cuisine, particularly in enclosed dishes like pasties."

Specialty Produce. (n.d.). Early Cornish potatoes. Specialty Produce. https://www.specialtyproduce.com/produce/Early_Cornish_Potatoes_17102.php

[6] Rutabaga / swede taxonomy and origin
Used in: Page 2 "All of these names refer to Brassica napus," "turnip–cabbage hybrid," "arrived later than potatoes."

Encyclopaedia Britannica. (n.d.). Rutabaga. In Encyclopaedia Britannica. https://www.britannica.com/plant/rutabaga

The Canadian Encyclopedia. (2012, March 6). Rutabaga. Historica Canada. https://thecanadianencyclopedia.ca/en/article/rutabaga

[7] Swede as a cool season, long-keeping crop, human and livestock feed
Used in: Page 2 “thrives in cool, wet climates, store for months, feed humans and livestock.”

Government of Saskatchewan, Ministry of Agriculture. (n.d.). Rutabaga production. Government of Saskatchewan. https://www.saskatchewan.ca/business/agriculture-natural-resources-and-industry/agribusiness-farmers-and-ranchers/crops/vegetable-crops/rutabaga-production

[8] Swede as “poor” or wartime vegetable, famine associations
Used in: Page 2 “poor or wartime vegetable,” “when other foods were scarce.”

Imperial War Museums. (n.d.). “Turnip winter”: Food shortages in Germany 1916–1917. Imperial War Museums. https://www.iwm.org.uk/history/turnip-winter-food-shortages-in-germany-1916-1917

[9] Names: swede, rutabaga, turnip, neeps
Used in: Page 2 naming paragraph.

BBC Good Food. (n.d.). Swede [Ingredient glossary]. BBC Good Food. https://www.bbcgoodfood.com/glossary/swede-glossary

UNESCO World Heritage Centre. (n.d.). Cornwall and West Devon Mining Landscape [World Heritage list entry 1215]. UNESCO. https://whc.unesco.org/en/list/1215

[11] Redruth as rich copper district, cramped miners’ housing
Used in: Page 3 “Redruth … became one of the richest copper districts,” “miners’ families lived in small houses close to the workings and relied on cheap, filling food.”

Redruth Town Council. (n.d.). History of Redruth. Redruth Town Council. https://www.redruth-tc.gov.uk/history-of-redruth

[12] Cornish mining decline and diaspora overseas
Used in: Page 4 “By the late nineteenth century, Cornish hard rock miners were leaving Britain for new metal camps overseas.”

Cornish Mining World Heritage. (n.d.). Cornish mining: The diaspora. Cornish Mining World Heritage. https://www.cornishmining.org.uk/

[13] Butte as “Richest Hill on Earth”, cornish and Irish migrants
Used in: Page 4 “Butte in southwestern Montana, widely known as ‘the Richest Hill on Earth,’” and the bit about Irish and Cornish miners.

City and County of Butte–Silver Bow Archives. (n.d.). The richest hill on earth: A brief history of Butte, Montana. Butte–Silver Bow Public Archives. https://co.silverbow.mt.us/481/History-Culture#:~:text=Butte%20began%20in%20the%20late,copper%20boom%2C%20and%20Butte%20flourished.

Malone, M. P., Roeder, R. B., & Lang, W. L. (1991). Montana: A history of two centuries (Rev. ed.). University of Washington Press.

[14] Miner’s lunch pail structure and reheating
Used in: Page 4 note and “three levels: coffee, pasty, cake,” reheating by candle.

Baumler, E. (2015, April 7). A miner’s lunch: Pasties, pails and Cousin Jack. Montana Moments (Montana Historical Society blog). https://mhs.mt.gov/Blog/posts/a-miners-lunch-pasties-pails-and-cousin-jack

[15] “Letter from ’ome”, crust as handle, offerings to rats and spirits
Used in: Page 4 “letter from ’ome,” folklore line, crust as handle and offerings.

McGrath, J. (Ed.). (1988). Butte’s heritage cookbook (8th ed.). Artcraft.

FIGURES:

Page 1

Figure 1. Cover page pasty photograph
Photograph by Sparveriuspict, Getty Images, via Canva.

Page 2

Figure 2. Potatoes sketch
Drawn by author, stylized using Canva tools for thematic and stylistic cohesion.

Figure 3. Swede / rutabaga sketch
Drawn by author, stylized using Canva tools for thematic and stylistic cohesion.

Page 3

Figure 4. Map of Cornwall and west Devon
Drawn by author.

Figure 5. Cornish pasty PGI logo
“Cornish Pasty” Protected Geographical Indication (PGI) logo, reproduced from the United Kingdom Department for Environment, Food and Rural Affairs, Protected food and drink names: Cornish pasty webpage.

Page 4

Figure 6. Miner’s lunch pail sketch
Drawn by author, based on historical three tier miner’s lunch pails described in Baumler (2015), stylized using Canva tools for thematic cohesion.

Figure 7. Outline map of Butte, Montana
Drawn by author on iPad.

FOCCACIA

THE HISTORY AND FLAVOUR STORY BEHIND ITALY'S ICONIC BREAD

BY: JORDAN CHEUNG

THE HISTORY OF BREAD-MAKING

To begin, we must travel back in time nearly 9000 years, to a place where agriculture as we know it was only beginning to take shape. The fertile crescent, a belt of land spanning modern-day Turkey, Syria, Iraq, and Iran, is home to the world's first domesticated cereals. Archeogenetic studies reveal that einkorn wheat (Triticum monococcum) was among the earliest grains cultivated by Neolithic communities around 10,000 years ago, which triggered a monumental transformation in human settlement and the dawn of food culture (Ahmed et al., 2023). At the same time, emmer wheat (Triticum dicoccum) underwent a slow, deliberate process of domestication, as early farmers selected for larger seeds and non brittle rachis, gradually transforming wild grasses into the staple grain used for bread making (Pourkheirandish & Komatsuda, 2022).

It is here that the earliest forms of flatbread appeared; simple mixtures of ground grain and water, cooked over stones or clay hearths. Evidence from Shubayaqa 1 in northeastern Jordan shows charred remains of a bread-like product, baked by hunter-gatherers some 14,400 years ago (Arranz-Otaegui et al., 2018). Analysis of these remains indicated that wild cereals, including einkorn and most likely wild barley or oats , were ground, sieved, kneaded and cooked to produce flat, unleavened breads. This suggests that breadmaking predates formal agriculture by nearly 4,000 years (Arranz-Otaegui et al., 2018). These ancient flatbreads can be seen as the ancestral foundation of every loaf of bread baked today (Arranz-Otaegui et al., 2018).

OLIVE OIL

At the same time, across the Eastern Mediterranean, another transformation was unfolding; the domestication of the olive tree (Olea europaea). Genetic and archaeobotanical evidence indicates that olives were first managed and cultivated in the southern Levant, and other millennia, olive oil production spread westward throughout the Mediterranean basin, adapting to diverse climates and becoming deeply embedded in cultural and culinary traditions (Barazani et al., 2023; Takashi et al., 2013; Barazani & Dunseth, 2023).

DID YOU KNOW THAT SPAIN IS THE WORLD'S LARGEST PRODUCER OF OLIVE OIL? *(ABOUT OLIVE OIL, N.D.)*

By the time the region, that is now Ligurian Italy developed its own bread traditions, the essential ingredients; wheat, olive oil, and salt, were already the product of thousands of years of human plant interaction and ecological adaptation.

SALT

But olive oil alone does not complete the story. Salt, often invisible in its final form on the plate, carries its own rich history. For millennia, coastal communities around the Mediterranean and Atlantic coast have harvested salt from marshes and tidal saltworks, using traditional, low technological methods that rely on the rhythm of the tides, sun and wind. These salt marsh systems have produced salt not just for local consumption, but also for trade, preservation and cultural identity (Hueso-Kortekaas & Iranzo-Garcia, 2022).

I was fortunate enough to witness one of these traditional, cultural practices first hand; during my field school trip to France earlier this year. We visited the Saline de Guerande, a salt marsh region located on the French Atlantic coast, where salt has been harvested by hand using traditional ancestral methods for centuries.

Watching the process up close I saw how sea water is guided into shallow evaporation ponds during high tide, and over days and weeks of sunshine and wind, gradually transforms as the water evaporates and the salt begins to crystalize (LePaludier de Guerande, n.d.). The coarse salt along with the prized “fleur de sel”, reflects not only the chemistry of the sea; but also the careful labor and ecological knowledge of the paludiers, who skillfully manage water levels, timing and conditions to produce this essential ingredient (Le Guerandais, n.d.). Being there first hand, I could feel the continuity of human care and tradition embedded in the practice, which has shaped culinary landscapes across the Mediterranean for thousands of years.

HOW THEY ALL COME TOGETHER...

The journey from simple flatbreads to leavened loaves, and eventually to the focaccia we know and recognize today, began with humanity’s slow but transformative discovery of fermentation. Early flatbreads dating back 14,400 years were dense, unleavened mixtures consisting of flour, water, and sometimes salt or oil, designed to provide sustenance rather than lightness or flavour complexity (Pasqualone et al., 2022).

The introduction of yeast revolutionized this process. Archaeological and genetic evidence suggests that Saccharomyces cerevisiae, the yeast species central to modern bread, was first used in ancient Egypt around 2500-1500 BCE (Lahue et al., 2020). Bakers likely captured wild yeast from the environment or borrowed it from brewing processes, learning gradually that these microorganisms could lighten dough and create the airy, porous texture we now associate with leavened bread (Lahue et al., 2020).

Before cultivated yeast became common, fermentation was accidental or improvised. Dough exposed to the air would naturally collect wild yeast and bacteria, and bakers sometimes reused pieces of old dough, which are early sourdough starters, to inoculate fresh batches (Lahue et al., 2020). Archaeological finds, including charred loaves and pictorial records from Egypt, indicate that this slow experimentation with fermentation gradually transformed bread from a dense, functional staple into a lighter, more flavourful product (Daley, 2019; Lahue et al., 2020).

An essential part of this transformation is feeding the yeast. Yeast requires sugar to activate and begin producing carbon dioxide, which makes the dough rise. In modern focaccia recipes, including the ones I bake at home, call for dissolving sugar or honey in warm water with the yeast to activate it, by feeding the yeast. The sugar or honey serves a dual purpose; it feeds the yeast for fermentation and adds a subtle sweetness and flavour to the dough (Marcus, 2024).

ORIGIN

The origins of focaccia remain complicated and somewhat uncertain, but food historians trace its roots to ancient hearth-baked flatbreads. The name “focaccia” likely derives from the latin Panis focacius, meaning “hearth bread”, referencing breads baked on heated stones or coals rather than in an oven (Franklin, n.d.). These early breads were simple mixtures. Over time, hearth breads spread across the roman empire, evolving in style and ingredients according to regional availability (Dalessio, 2023).

Some scholars suggest that focaccia may also be descended from pre-Roman or Etruscan flatbreads, baked on hearths and made with local grains and oils (TFN, 2020). These breads were dense and functional. The similarity of flatbreads across the Mediterranean, including Greece and southern France, and Italy indicates a shared ancestral flatbread tradition, though exact recipes and techniques likely varied with climate, geography and culture (Liz & Philippe, 2023).

By the middle ages, a more distinct version emerged in Liguaria, in northwestern Italy, where regional bread traditions began to resemble the focaccia we know today. Ligurian focaccia was baked for social and ceremonial occasions made from local wheat, olive oil, and salt, connecting it to the biogeophysical conditions of the region (La Mia Liguaria, n.d.). Over the centuries, local innovations added toppings, varied crust thickness, and slight modifications in texture and flavour, resulting in the many regional varieties, such as focaccia al rosmarino in Liguria or tomato topped focaccia in southern Italy (Montevergine, 2015; Cashman, 2023).

BIO GEO PHYSICAL INFLUENCES

The landscapes and climates of the Mediterranean have shaped focaccia from the ground up. Olive trees (Olea europaea) thrive on the sun-drenched hillsides, terraced slopes, and rocky soils of regions like Liguria, where salty maritime air and mild, wet winters create optimal conditions for olive cultivation (Barazani et al., 2023; Takashi et al., 2013). These environmental factors influence not only the yield but also the flavour and aroma of the olives, which in turn shape the taste and texture of the olive oil that defines Ligurian focaccia. Similarly, wheat flour, the backbone of any focaccia, depends on Mediterranean winter rains, fertile soils, and moderate temperatures to produce grains suitable for bread making, with variations in climate and soil subtly altering the flavour and texture of the dough (Ahmed et al., 2023). Even salt, often overlooked, is inseparable from its biophysical context.

Coastal and tidal salt marshes, like the Salines de Guérande in France, rely on the rhythm of tides, sun, and wind to crystallize seawater into salt, while human skillful management ensures consistent quality (LePaludier de Guérande, n.d.). These interwoven ecological, climatic, and human factors demonstrate that focaccia is not just simply a recipe, but a product of landscapes, soils, and centuries of adaptation, with each loaf, a reflection of the environment that nurtured its key ingredients.

EVOLUTION AND ADAPTATIONS

Today, focaccia is enjoyed across Italy, in many regional forms, reflecting centuries of culinary evolution. In Liguria, focaccia al rosmarino remains iconic, thin, dimpled, and brushed with olive oil, while in southern regions like Puglia, thicker focaccias are often topped with tomatoes, olives, or cheese (Maxabella, 2023; Recipes & Roots, 2023). These variations demonstrate how geography, tradition, and local tastes have shaped the dish over time, reflecting its terroir: the unique interplay of environmental conditions, cultural practices, and place-based knowledge that define a food's character.

In addition to its enduring presence in Italian cuisine, focaccia has gained global popularity through social media. Social media platforms such as Instagram and TikTok allow home bakers and influencers to share countless recipes and adaptations, from herb-infused and cheese-topped versions to sweet or fruit-topped creations, inspiring experimentation in kitchens worldwide (Sokolova et al., 2024; Williams, 2025). This digital sharing has transformed focaccia into a dynamic, evolving food trend, where both traditional methods and creative innovations coexist, bringing new flavours, techniques, and audiences to this ancient bread

WHAT IS TERROIR?

Terroir refers to the unique mix of soil, climate, landscape, and local practices that shape the flavour and character of foods made in a specific place. The word comes from the French terre, meaning "land" or "earth," tracing back to Old French and Latin terms for soil and place. (Oxford English Dictionary, "Terroir")

THE BEST FOCACCIA

INGREDIENTS

500 g (~4 cups) all purpose flour
420 ml warm water (not too hot)
5 g (1 tsp) honey
4 g (1 tsp) instant yeast (or a pack)
10 g (2 tsp) fine sea salt
2–3 tbsp extra virgin olive oil (for dough)
Extra olive oil for drizzling and pan
Optional toppings: pizza sauce, cherry tomatoes, salt & olive oil mixture, pesto, fresh basil, burrata, balsamic glaze, flaky sea salt

INSTRUCTIONS

1. Activate the Yeast: Mix warm water and honey in a small bowl. Add the yeast and stir. Cover with a towel and let sit for 10 minutes until the yeast has bloomed (frothy). If the yeast does not bloom, discard and start over; fresh yeast is key!
2. Make the Dough: In a large mixing bowl, combine the flour and salt. Add the bloomed yeast mixture. Mix together, then knead for a few minutes until the dough forms a smooth, cohesive ball.
3. First Rise: Lightly oil a bowl with 2–3 tbsp olive oil. Place the dough in the bowl, turning to coat all sides in oil. Cover with saran wrap and leave in a warm spot or at room temperature for 2–3 hours, until doubled in size.
4. Prepare the Pan: Line a baking sheet with parchment paper and drizzle ~ 2 tbsp olive oil on it. Transfer the dough to the pan and gently stretch it out to fit. Drizzle additional olive oil on top. Cover with saran wrap or another baking tray of the same size. Let it rest overnight, or for at least 4 hours, to develop flavour.
5. Preheat and Prep for Baking: Preheat the oven to 425°F (220°C). Dimple the dough with your fingertips before adding toppings.
6. Optional Toppings & Brine: For extra moisture, make a brine: warm water + 1 tbsp salt + 1 tbsp olive oil. Drizzle a few tablespoons over the dough (not all of it). Add halved cherry tomatoes tossed with olive oil, salt, and pepper. Spread a thin layer of pizza sauce if desired.
7. Bake: Place the focaccia in the preheated oven and bake for 25–28 minutes, until light/golden brown.
8. Finishing Touches: Remove from the oven and add dollops of pesto, fresh basil leaves, and burrata. Drizzle with balsamic glaze and honey. Sprinkle flaky sea salt on top.
9. Serve & Enjoy: Slice and enjoy warm! This is your ultimate, personalized focaccia.

REFERENCES

ABOUT OLIVE OIL. (N.D.). OLIVE OIL PRODUCTION BY COUNTRY. ABOUT OLIVE OIL. HTTPS://WWW.ABOUTOLIVEOIL.ORG/OLIVE-OIL-PRODUCTION-BY-COUNTRY

BARAZANI, O., DAG, A., & DUNSETH, Z. (2023). THE HISTORY OF OLIVE CULTIVATION IN THE SOUTHERN LEVANT. FRONTIERS IN PLANT SCIENCE, 14, 1131557. HTTPS://DOI.ORG/10.3389/FPLS.2023.1131557

CASHMAN, R. (2023, SEPTEMBER 20). HOW LIGURIAN FOCACCIA BECAME THE GOLD STANDARD FOR ITALIAN FLATBREAD. TASTING TABLE. HTTPS://WWW.TASTINGTABLE.COM/1395080/HISTORY-LIGURIAN-FOCACCIA-ITALY

DALESSIO, C. (2023, SEPTEMBER 10). FROM ETRURIA TO GENOVA: THE TIMELESS AND TASTY JOURNEY OF FOCACCIA. LITALO-AMERICANO. HTTPS://ITALOAMERICANO.ORG/TIMELESS-TASTY-FOCACCIA

DALEY, J. (2019, AUGUST 8). THIS BREAD WAS MADE USING 4,500-YEAR-OLD EGYPTIAN YEAST. SMITHSONIAN MAGAZINE. HTTPS://WWW.SMITHSONIANMAG.COM/SMART-NEWS/BREAD-WAS-MADE-USING-4500-YEAR-OLD-EGYPTIAN-YEAST-180972842

FRANKLIN, L. (N.D.). FOCACCIA. IN BRITANNICA. HTTPS://WWW.BRITANNICA.COM/TOPIC/FOCACCIA HTTPS://WWW.TFNINTERNATIONAL.COM/FOOD/FOCACCIA-ITALY/

HUESO-KORTEKAAS, K., & IRANZO-GARCÍA, E. (2022). SALINAS AND "SALTSCAPE" AS A GEOLOGICAL HERITAGE WITH A STRONG POTENTIAL FOR TOURISM AND GEOEDUCATION. GEOSCIENCES, 12(3), 141. HTTPS://DOI.ORG/10.3390/GEOSCIENCES12030141

LA MIA LIGURIA. (2023, DECEMBER). GENOVESE FOCACCIA: ITS ORIGINS AND RECIPE. HTTPS://LAMIALIGURIA.IT/EN/2023/12/GENOVESE-FOCACCIA-ITS-ORIGINS-AND-RECIPE

LAHUE, C., MADDEN, A. A., DUNN, R. R., & SMUKOWSKI HEIL, C. (2020). HISTORY AND DOMESTICATION OF SACCHAROMYCES CEREVISIAE IN BREAD BAKING. FRONTIERS IN GENETICS, 11, 584718. HTTPS://WWW.NCBI.NLM.NIH.GOV/PMC/ARTICLES/PMC7686800/

LE GUÉRANDAIS. (N.D.). HISTORY OF GUÉRANDE SALT. LE GUÉRANDAIS. HTTPS://WWW.LEGUERANDAIS.FR/EN/SALT-MARSH-HERITAGE/HISTORY-GUERANDE-SALT

LE PALUDIER DE GUÉRANDE. (N.D.). OUR KNOW-HOW. LE PALUDIER DE GUÉRANDE. HTTPS://WWW.LEPALUDIER.COM/EN-CA/NODE/52

LIZ & PHILIPPE. (2023, OCTOBER 23). FOUGASSE – A SAVORY FRENCH FLATBREAD WITH ITALIAN ROOTS. DISCOVER CÔTES DU RHÔNE. HTTPS://DISCOVERCOTESDURHONE.COM/FOUGASSE-SAVORY-FRENCH-FLATBREAD/

MAXABELLA, B. (2021, APRIL 15). HAVE YOU TRIED ALL OF ITALY'S REGIONAL FOCACCIAS? SBS FOOD. HTTPS://WWW.SBS.COM.AU/FOOD/ARTICLE/HAVE-YOU-TRIED-ALL-OF-ITALYS-REGIONAL-FOCACCIAS/WX4B39L9X

MONTEVERGINE, S. (2015, JULY 27). FOCACCIA GENOVA CONTRO BARI. LA CUCINA ITALIANA. HTTPS://WWW.LACUCINAITALIANA.IT/NEWS/IN-PRIMO-PIANO/FOCACCIA-GENOVA-CONTRO-BARI

OXFORD ENGLISH DICTIONARY. (N.D.). TERROIR. IN OED ONLINE. RETRIEVED NOVEMBER 30, 2025, FROM HTTPS://WWW.OED.COM/DICTIONARY/TERROIR_N

PASQUALONE, A., VURRO, F., SUMMO, C., ABD-EL-KHALEK, M. H., AL-DMOOR, H. H., GRGIĆ, T., RUIZ, M., MAGRO, C., DELIGEORGAKIS, C., HELOU, C., & LE-BAIL, P. (2022). THE LARGE AND DIVERSE FAMILY OF MEDITERRANEAN FLAT BREADS: A DATABASE. FOODS, 11(15), 2326. HTTPS://DOI.ORG/10.3390/FOODS11152326

SCIENCEDIRECT. (N.D.). YEAST BREADS – AN OVERVIEW. IN SCIENCEDIRECT TOPICS. RETRIEVED NOVEMBER 30, 2025, FROM HTTPS://WWW.SCIENCEDIRECT.COM/TOPICS/AGRICULTURAL-AND-BIOLOGICAL-SCIENCES/YEAST-BREADS

SOKOLOVA, K., PEREZ, C., & VESSAL, S. R. (2024). USING SOCIAL MEDIA FOR HEALTH: HOW FOOD INFLUENCERS SHAPE HOME-COOKING INTENTIONS THROUGH VICARIOUS EXPERIENCE. TECHNOLOGICAL FORECASTING AND SOCIAL CHANGE, 204, 123462. HTTPS://DOI.ORG/10.1016/J.TECHFORE.2024.123462

TAKAHASHI, K., TERAMURA, K., MURAOKA, S., OKADA, Y., & MIYATAKE, T. (2013). GENETIC CORRELATION BETWEEN THE PRE-ADULT DEVELOPMENTAL PERIOD AND LOCOMOTOR ACTIVITY RHYTHM IN DROSOPHILA MELANOGASTER. HEREDITY, 110(4), 312–320. HTTPS://DOI.ORG/10.1038/HDY.2012.88

TFN INTERNATIONAL. (2020, FEBRUARY 17). FOCACCIA | ITALY. TFN INTERNATIONAL. HTTPS://WWW.TFNINTERNATIONAL.COM/FOOD/FOCACCIA-ITALY

WILLIAMS, J. R., RAVIKUMAR, R., MANIKANDAN, R., SURIYA PRAKASH, S., & H. M. MOYEENUDIN. (2025). THE ROLE OF SOCIAL MEDIA AND ONLINE PLATFORMS IN GROWING HOME BAKING BUSINESS. INTERNATIONAL JOURNAL FOR RESEARCH IN APPLIED SCIENCE AND ENGINEERING TECHNOLOGY, 13(4), 3065–3073. HTTPS://DOI.ORG/10.22214/IJRASET.2025.68509

fondue

Its Orgins Might Suprise You

On the surface, fondue looks pretty—simple; melted cheese—a single pot, it doesn't even radiate orange like its estranged cousin, nacho. But if you consider its history, its true history, its desire and richness become clear. Yes, at its core fondue consists of only three main ingredients and a vehicle for the melted emulsion to be delivered. But its journey to your table is epic, from Greek warriors wielding cheese graters, to a cheese cartel, your picturesque vision of euro-trip in the Swiss Alps won't be the same. You might even need to pretend it's cold outside and invite some friends over for a boozy, cheesy-fun time[9].

One *Quickish* History Lesson

As you may have guessed, fondue starts with cheese; however, not with the cheese of Switzerland. Rather the story of fondue begins in ancient Greece, of course, cheese had the capacity to evolve across regions, but it was the unique physical manipulation of cheese that renders its ties to Greece. The connection is nuanced, but significant; bronze cheese graters, found amongst Early Irom Age Greek warrior burials[20]. How can this prove fondue started in Greece and not elsewhere? Consider an excerpt from Homer's Iliad – an ancient Greek literary epic that narrows in on the mythical drink of kykeon, a kind of resorptive potion: "In that (cup) she mixed (it) for them, the woman like goddesses, with Pramnian wine, and she grated goat's cheese over it with a bronze grater and sprinkled white flour over it". It makes sense a warrior might consume such a beverage, carbs (flour), salt and fat (cheese), and bit of courage (Pramnian wine)[20].

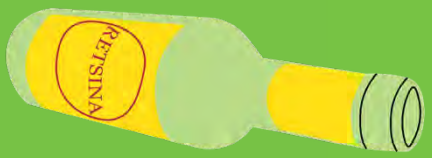


Fig1. Greek Retsina Wine

Käss mit Wein zu kochen

Cooking Cheese with Wine

Rumours of alpine peasants consuming melted cheese and stale bread during the winter months, became popular. Still the Swiss origins of fondue remained milky, especially when considering the French relationship to the alps[14]. But in 1699, when Anna Margaretha Gessner, a middle-class woman from Zurich, Switzerland, published a cookbook. Under the heading *Käss mit Wein zu kochen*, a

recipe calling for grated cheese to be melted with wine and eaten by dipping bread, provided the first examples of such culinary trends. However, the word *fondue,* deriving from the French word *fondre* "to melt), would not appear until 1735, when it was included in Vincent la Chapelle's *Le Cuisinier moderne*[12]. Finally in 1878, the word *fondue* entered the English vocabulary, but the dish still hadn't become popularized globally. That didn't happen until after World War I[1].

Historic Context

After World War I, Europe was in deep disrepair. However, Switzerland remained neutral during the war, and as a result the country remained intact alongside its diverse cheese industry. The problem was they had no one to sell it to, countries began to put up trade barriers, and the export of cheese out Switzerland halted. Ultimately, this meant the Swiss would need to sell dairy products within the confines of their own country. And with such a small population, this would certainly put many Swiss dairy farmers and fromageries (cheesemakers) out of business. The Swiss came up with a way everyone could flourish a way to preserve their cultural identify[11].

Introducing the Schweizerische Käseunion, or in English—The Swiss Cheese Union (SCU)[11,15]. An agreement was made among competitors to stop competing. The Swiss Cheese Union controlled everything — they set the price for milk and cheese, while also dictating production and distribution. It was a cheese cartel. Before the SCU, Switzerland made over 1000 types of cheeses, with the SCU running things, there were only seven. The Swiss government approved these actions and even subsidized the cheese industry[2,11].

After the second world war Switzerland began exporting cheese again, but production focused on hard cheeses like Emmental and Gruyère, limiting consumer demand. They needed a way to move their product, so the Swiss Cheese Union turned to the traditional culinary tales rooted in the alps—fondue. Marketed as a healthy, communal dish—rich in history and flavour, fondue quickly gained popularity amongst the new leisure class. By the 1950's Fondue became the Swiss national dish. And after being promoted at the Swiss Alpine Pavilion at the 1964 world's fair in New York. Fondue would reach peak popularity in United states during the 1970's, becoming a true symbol of Swiss identity. (national)

Fig2. Picturesque Red Holstiens

Gruyère

It's hard to know whether the Swiss take their cheese more or less seriously than before. Today Switzerland produces about 180,000 tons of cheese a year, exporting just a third. One of the Switzerland's oldest cheeses Le Gruyère dates to the year 1115, and remains one of the most popular cheeses, not only because its use in fondue, but its specificity in location5. A hard yellow cheese made with the raw milk of the picturesque Red Holstein. Originating in the medieval town of Gruyère in the canton (state) of Fribourg; Gruyère can also be produced in the cantons of Vaud, Neuchâtel, Jura and Bern. In 2001 Gruyère obtained AOC status, after a small battle with the France — of course[4,11]. Today, Gruyère like many Swiss made cheeses, falls under the Protected Designation of Origin (AOP), guaranteeing its origins and reputation[8].

Fig3. AOP Le Gruyère Cheese

What sets Gruyère apart from other worldly cheese, is its alpine history. The flavour characteristics of Gruyère comes from the ancient herding practice known as transhumance, rooted in the deep knowledge of the local environment and dairy producing species. During the summer months, cows are brought from valley farms into high alpine pastures for grazing. In the mountains cows can graze on more than just grass. Wildflowers, herbs, allium, nuts and fruit all contribute to the distinct flavours of Gruyère [6,19]. Among many characteristics of Gruyère is the use of raw, rather than pasteurized milk. The use of raw milk helps preserve as much of the unique alpine flavour associated within the region[19].

1.

Today, modern technology helps facilitate the Swiss cheese industry, but most is still made in hundreds of small dairies, using milk from a maximum distance of 12.4 miles away contributing to Gruyéres typicity[4,8]. Then a fromagerie sells the formed cheese to the affineur (a person who ages and refines cheese), this is where physical traits, flavours and recognition is born. For example, Gruyère affineur Mifroma ages its cheese in sandstone caves 624 feet into the mountainside. The humanity plays a crucial role in Gruyeres high water content of 34% [5]. The result, a cheese made for melting[20].

Swiss "Styled" Cheese

Most "Swiss" cheese found in a Canadian supermarket is made from pasteurized milk—and the holes, those are typically artificially produced. Swiss made Emmental will have some bubbling (a result of aging), but Gruyère will be solid[4].

Future Cheese

Today in a cave, a boxy robot pulls down a wheel of cheese from 30ft, flips it, washes it in brine and restacks it[5].

Past Cheese

Today in small scale operations curds and whey are still warmed with embers. It's this balance of technologies that yields an AOP designation for both Gruyères cheeses[5].

Dry White Wine

To turn the beautifully nutty and aromatic flavors of Gruyère into a smooth cheesy emulsion we need to break the casein micelles (proteins) holding it together. For this a dry white wine is the perfect match, dry white wine primarily contains tartaric and malic acids. When mixed with cheese the emulsions pH drops, making it acidic. This acidity directly correlates to the dispersion of the cheese, as the protein structure denature, the emulsion becomes smooth[17].

Fig4. Greek Rets

Recall the goddess with Pramnian wine, in Homers Iliad? Well, this ancient namesake can be traced to the Greek island of Ikaria[3]. Here the ancient methods of storing wine in clay jars buried in the earth

have gained formal recognition, but not without its struggles. Like the Swiss, the Geographical Indication of Ikarian wine was a result of economic difficulties and a wave of emigration from the island. This led to state support of young monoculture varieties of grapes. This led to the recognition of Indigenous grapes such as the white Begleri grape. And the aid of Indigenous yeasts that reflect the regions terroir. In 2006, Ikaria wine officially received Geographical Indication for Ikaria. Now cultivation of specific grape varieties such as *Fokiano, Begleri, and Kountouro*, contribute to the region typicity of flavour[7].

"Freds Friday Wine" List

This week, Fred's wine picks are inspired by the ancient Greek origins of fondue and Greece's dry white wines known for their typicity.

.

1. **Assyrtiko**
   - Artemis Karamolegos - Terra Nera Assyrtiko 2023, Available at Vessel Liquor for $49.99, PGI Cyclades
2. **Ikarian**
   - Pithari - Afianes 2018, 100% Begleri grapes, 200+ year old vines, 85,00€ (hard to find), PGI Ikaria
3. **Retsina**
   - Kechris - Kechribari Retsina $11.99 (available at Vessel Liquor Store)
   - Kechris - Tear of The Pine Retsina $39.99 (available at Vessel Liqour Store)
   - Rooted in its past, Retsina holds Traditional Appellation for its unique production which uses pine resin during the fermentation process, in ancient times pine resin was used as a sealant for the clay pots, giving the wine a distinct flavour[18].
   - PGI designated

Fig 5: A 1950's earthenware caquelon made from porcelain or clay is preffered[16].

—The Recipe—

Inspired by Bon Appétit magazine[9]

Hint: Finding a retro fondue set will add to the experience. Look for the forks with multicolored ends to prevent mix-ups in a communal setting. See above[16].

Ingredients (feeds four)

800g Gruyère, shredded
1 Tsp spoon corn starch
1 Cup dry white wine (any will do)
1 Large garlic clove
Nutmeg to taste
1 Baguette, day old

Instructions

1. Rub the inside of your caquelon and wooden spoon with garlic. Discard clove.
2. In a separate bowl thoroughly dissolve cornstarch with wine from the bottle (not from the measured amount) and set aside.
3. Set up your fondue or turn your stove to low.
4. Pour in the wine, when bubbles begin to rise from the wine begin to add cheese by the handful. Continue to stir while adding the remaining cheese.
5. Add in dissolved cornstarch and continue to stir for 2-3 minutes.
6. Add nutmeg to taste.

7. Serve with cubed bread and bubbly hot and keep stirring as it is eaten.

Just a Few Notes Before Your Next Fondue Party…

Although fondue is made from highly regarded ingredients known for their quality and unique flavours. Fondue is also very versatile. Rules were meant to be broken. Take for instance: Fondue Bourguignonne an all-beef version[9]. Which finds its origins in China, also a connection to bronze. For a boozier version dissolve corns starch in Kirsch or another fruit forward brandy. Find fresh nutmeg to grind. Experiment with paprika, and different types of peppers, try some aromatics, like thyme or saffron. Play with different ratios of cheese to find your favorite version. Veterans of fondue enjoy Vacherin and Emmental[4]. And don't forget to stir, lore recommends stirring clockwise, or in a figure-eight pattern to keep the cheese homogenised until the end[10]. "Don't drop your bread in the pot either, then you must pay up. Girls, kiss your neighbour; boys, buy the next bottle of wine"[9]. Ultimately, Fondue transcends generation, whether it's for the boozy undertones or its umami mouth feel. What makes fondue stand out is its simplicity. Ancient epics figured out the science, cartels brought it to the world. With its core in ingredients working for each other, holding high esteem for typicity we can confirm fondue is here to stay. Despite visual appeal it's about how it makes people feel. It's a sensory explosion; and it brings people together in economic hardships and frigid dark nights.

References

1. 1001 Fondues. (2021, October 21). *Cheese Fondue History*. Retrieved December 2, 2025, from https://1001fondues.com/en/about-us/cheese-fondue-history/
2. About Switzerland. (2024, November 6). *Swiss cuisine*. In *About Switzerland*. Retrieved December 2, 2025, from https://www.aboutswitzerland.eda.admin.ch/en/swiss-cuisine
3. Afianes Wines. (n.d.). *Wine & tradition*. AfianesWines. https://afianeswines.gr/en/our-wines/wine-tradition/
4. Alpenwild. (n.d.). *Fondue – History and Tradition*. Alpenwild.
5. Andrews, B. (2025, April 10). *In the Swiss Alps, Gruyère Cheese Is a Way of Life. Bon Appétit*. Retrieved December 2, 2025, from https://www.bonappetit.com/story/swiss-alps-gruyere-cheese-way-of-life
6. Food and Agriculture Organization of the United Nations. (2024, January 17). *UNESCO recognizes the cultural significance of two transhumance traditions*. Mountain Partnership News. https://www.fao.org/mountain-partnership/news/newsroom/news-detail/
7. History & Museums of Ikaria. (n.d.). In *Naegean Modern History*. Retrieved December 2, 2025, efrom https://www.naegean-modernhistory.gr/en/landmark/ikaria-en/
8. Interprofession du Gruyère. (n.d.). *Un savoir-faire artisanal, une tradition depuis 1115 –* Accueil. https://www.gruyere.com/accueil
9. Kramer, J. (2013, November 1). *Revisiting cheese fondue from our February/March 1965 issue*. Bon Appétit. https://www.bonappetit.com/columns/vintage-ba-columns/article/cheese-fondue-1965
10. Mah. (2014). *How to Eat Cheese Fondue the Proper Swiss/French Way. Bon Appétit*.https://www.bonappetit.com/entertaining-style/article/fondue-rules
11. NPR. (2018, May 2). *The Fondue Conspiracy*. NPR. https://www.npr.org/transcripts/607787351
12. Ravanetti, A. (2025, February 14). *Inside Gruyère: The hidden science behind its rich, nutty flavor*. Wine Dharma. https://winedharma.com/en/produtcs/inside-gruyere-the-hidden-science-behind-its-rich-nutty-flavor/
13. Swiss Federal Department of Foreign Affairs. (2025, November 17). *Fondue – the convivial Swiss dish par excellence*.About Switzerland. https://www.aboutswitzerland.eda.admin.ch/en/fondue-the-convivial-swiss-dish-par-excellence

14. Swiss National Museum. (2019, November 13). *Fondue – a 'natural processed product'*. Blog of the Swiss National Museum. https://blog.nationalmuseum.ch/en/2019/11/story-of-fondue-in-switzerland/
15. SwissMar. (n.d.). *History of Fondue*. Swissmar Shop. https://swissmarshop.com/blogs/blog-posts/history-of-fondue
16. Tchea, M. (2023, February 14). *Everything you need to make fondue at home*. *Bon Appétit*. https://www.bonappetit.com/story/everything-you-need-to-fondue
17. Thomas, C., & Smith, J. (2018). *Rheology of Swiss Cheese Fondue*. ACS Omega. https://doi.org/10.1021/acsomega.8b02424
18. Unbox Greece. (2025, April 7). *Retsina: The accidental Greek wine that became a legend*. Unbox Greece. https://unboxgreece.com/retsina-the-accidental-greek-wine-that-became-a-legend/
19. Vachon, P. (2022). *Get to Know Your Alpine Cheeses*. ICE Blog. https://www.ice.edu/blog/alpine-cheeses
20. Williams, O. (2024, April). *Ancient Greek cheese graters*. Karwansaray Publishers. https://www.karwansaraypublishers.com/en-ca/blogs/ancient-history-blog/ancient-greek-cheese-graters

Figure 1

Gołąbki: Poland's Traditional Cabbage Rolls

A dish That has warmed its way into Polish homes and has become a staple comfort dish and festive meal

Gołąbki & Family

Polish cabbage rolls (Fig. 1) have maintained a symbol of family and tradition for centuries. As a meal that is made for comfort and holiday celebrations while relying on the classic polish flavours, it is no wonder that this meal is up there with other polish greats like pierogies, Bigos, and kotlet schabowy. Today, they are a staple in most polish homes with each recipes having been handed down for generations with their own twist on the classic meal. Many home cooks like Jullian Wade[30], even cooks like Martha Stewart[27] learn how to cook gołąbki from a family maternal figure . It is a meal that brings family together in the kitchen to share generational knowledge, with each new generation making it their own. Being a staple in many polish homes during the holiday season, it is surrounded by feelings of togetherness, joy and tradition. A warm meal that families gather around a table to enjoy while sharing stories of the past and dreams for the future.

Ancient History

Cabbage rolls have been a staple meal in many countries for centuries, each adding their own twist. With its long-standing history, it is difficult to pinpoint the exact origin of the original dish. However, it's believed that it originated either in the Middle East as dolmas (Grape leaf wrapped rice filling) 3000 years ago or as a Jewish dish in Rome and Greece 2000 years[29,17]. The Jewish dish, holishkls, more closely resembles the cabbage rolls we see today, with a filling of meat, rice, and raisins. This dish was made for the fall harvest festival, Sukkot, to symbolize abundance and a plentiful harvest[28]. With the expansion of the Roman Empire came the spread of cabbage roll consumption, gaining a foothold in areas where cabbage cultivation was popular and ever growing[4]. Since then it has been adopted into many different countries' cuisine, as it is a meal that was nourishing and easily accessible for the poorer class. Through trade and cultural relations between varying countries, the cabbage roll has taken root in countries from Europe to Asia, and today has made it to North and South America through immigration[4]. Many countries associate

the food with fall and winter holidays, large celebrations, or as a simple comfort food[29,19]. For many cultures the use of cabbage rolls as a dish during large celebrations and festive occasions is due to them symbolizing abundance, togetherness, luck, and prosperity. The mixture of ingredients wrapped within the cabbage leaf creates this symbolism. In addition, the ingredients themselves, often vegetarian, allow people of all economic standing to not only make the meal, but also make large quantities of it, making it an ideal dish for large holidays and celebrations.

Figure 2

Contributions of a Neighbour

It is believed that cabbage rolls first came to Poland from their neighbouring country of Ukraine[21]. The dish was called Holubtsi, and only contained rice due to the high cost of meat at the time. By adding fillings that were agriculturally accessible, Poland soon made it their own and named it gołąbki[21].

19th century beginnings

The beginning of the 19th century was a turbulent time for Poland, being divided into 3 parts (Fig. 2) between Russian Poland, Prussia and Galicia, with partial independence on the horizon[8]. At this time Ukraine and parts of Poland would be much aligned, as they were both under the rule of tsarist Russia. This would lend itself to the belief that cabbage rolls were first introduced to the border lands of Poland that were closest to Ukraine during this time period[21]. Poland has a wide range of topography, from coastal lands, and mountain ranges, to highlands and plains. It is in the highlands and plains of the central and southern parts of the country, where the soil is most fertile, that a majority of their agriculture continues to take place[31]. In these areas the climate is continental, meaning warmer temperature in the summer (25°C) and cold winters (-4°C) with moderate precipitation mainly during the summer months[11]. These conditions are ideal for root and hardy leaf vegetables like: beets, cabbage, potato, and kale[23]. Even before the 19th century potatoes and cabbage were essential affordable agricultural crops that most peasants relied on to feed them through the harsh winter months[23]. You can see this mirrored in most classic Polish cuisine, as these produce were staples in households. This is no different for gołąbki, the original recipe is believed to be started by the peasant class and was a filling of potatoes and buckwheat wrapped in a cooked or fermented cabbage leaf[1].

Figure 3

Its Evolution

While gołąbki has changed over the centuries with the people of Poland, it has remained a simple and affordable meal for middle and lower class citizens. As trade between Poland and neighbouring/international countries has increased over the years, access to a variety of new and affordable ingredients[31] has allowed for a more dynamic flavour palette of this iconic polish dish. The filling is the part of this dish that has changed the most. A shift from a potato and buckwheat filling to other more rich and easily sourced ingredients like rice, mushrooms, tomatoes and meats have become commonplace[21]. In the early 20th century, you see the addition of a tomato sauce added to the classic gołąbki after the popularization of tomatoes post World War II[23]. Today there are two main varieties of Polish cabbage rolls, the first has a filling of minced pork, mushrooms, and grain[1]. These rolls are then covered in a mushroom cream sauce. The other variety is most popular and is seen as a more traditional style of gołąbki. It contains a filling of minced beef and pork, onions, and rice, it is then topped with a thinned tomato soup or sauce[28] (fig. 3).

My Recipe is a take on the Paillé family recipe that was passed down from my grandma. It was originally an affordable and simple recipe that I believe could feed a small village. I've altered it to give my own twist that has a manageable portion size with fresh ingredients, and additional flavour.

Recipe:

Ingredients:

- 1 pound of ground beef
- 1 pound of ground pork
- 1 large onion, diced
- 3 cloves of garlic, minced
- Oil for cooking
- salt & pepper to taste
- 1 ½ cups of rice
- 1 can of tomato soup
- 1 large head of cabbage

Directions:

1. Pre-heat the oven to 375°F
2. Cut out the core of the cabbage and boil until leaves peel off.
3. In a separate pot cook the rice
4. In a pan add a little oil and sauté diced onion on medium heat till translucent, then add minced garlic until aromatic (1-2 minutes)
5. Add the beef and pork to the pan, cooking until brown.
6. Add salt and pepper to tastes
7. In a bowl mix the cooked meat and rice
8. Using a large spoon place a spoonful of mixture at one end of a cabbage leaf (best to cut out the lower part of the stem on the leaf before rolling for an easier roll). Fold in the side of the leaf over the mixture then roll (will look like a little burrito).
9. Place the rolls in a baking dish close together, but not on top of one another, and pour tomato soup on top of them.
10. Bake in the oven at 375°F for 20 minutes, or until done.

Cabbages

Cabbage is a staple crop globally, yet there is very little known about its origins. It has been determined that the original wild species (fig. 4) grew throughout the Atlantic coast of Europe, the canary islands, and the Mediterranean Basin, on coastal winter cliffs. The first records of cabbage cultivation comes from Theophrastus in 372-287 BC, where he mentions three types of cabbage: wild-type, smooth-leaved, and curly-leaved[33]. These records come from ancient Greek and Roman times, and depict an already modified and diversified crop. Since then the roman empire spread the crop throughout Europe and Asia, and today it is grown on almost every continent on the planet[3]. For good reason, it is a hardy vegetable that can withstand winter temperatures as low as -6°C[5], making it an excellent winter crop. It is also nutritious, providing essential vitamins, minerals and amino acids like vitamin A and C, potassium, and magnesium[13]. Cabbage was first brought over to Poland by German monks in the 14th century[18], and they haven't looked back since. A

Figure 4

The majority of Polish cuisine involves cabbage in some way, whether it is a main component or a side. Today Poland produces 20% of Europe's cabbages[16], with it taking up 30% of their agricultural land[18].

Tomatoes

When it comes to gołąbki, the addition of tomatoes into the recipe is a new player on the block. Yet most recipes today call for the addition of either a tomato sauce or soup, so how did we get here? Tomatoes originated in South America and could be found throughout the Andes of Ecuador and Peru[25]. There they were harvested and cultivated by the Inca people[2]. Through trade they were brought to the Aztec People where they were farmed and selectively bred to produce larger and sweeter varieties[25]. By the 16th century, the Spanish had brought them over to Europe where they became a staple in Italian cuisine but took much longer to take root in other European cuisine. In Poland they were first introduced in the early 19th century, but didn't gain momentum till after World War II[23], this is most likely due to tomatoes finally being able to be mass produced (Fig. 5) during this time making them more affordable.

Figure 5

Rolling Around the Globe

Chinese Cabbage Rolls - Fei Cui Bao Rou (Fig. 6)

These Cabbage rolls have a similar filling to most cabbage roll with a mix of vegetables, rice, and protein. The proteins added would be those typically found in homes like pork, shrimp, or tofu[19,12]. Additional sauces like sesame oil and oyster sauce may be added to enhance the the flavour of the filling. The main differences are in the type of cabbage used (usually a chinese variant) and how they are cooked. Fei cui bao rou are steamed, a common cooking method in China that preserves nutrients and delicate flavours[24]. Usually the cabbage rolls will be added to a light broth or have a sweet and savory or spicy sauce added on top to complement the flavours[19,12].

Figure 6

Figure 7

Romanian Cabbage Rolls - Sarmale (Fig. 7)

Typical with most cabbage rolls it has a filling of vegetables, rice, and a protein. The main protein will always be ground pork, but additional fatty cuts will also be added like bacon. The other absolutely necessary ingredient is dill, a staple in romanian cooking. As for the wrapping, there are a few options between grape leaves, pickled cabbage leaves, or regular cabbage leaves, although it seems that the most popular are the pickled leaves common in most Eastern European homes[29,7]. The cabbage roll would be topped with a tomato juice similar to what is used for polish cabbage rolls. They are mainly served during big celebrations like weddings, Baptisms, and holidays[29].

Finnish Cabbage Rolls - Kaalikääryleet (Fig. 8)

In most ways the Finnish cabbage rolls are very similar to Polish cabbage rolls. The differences come after the filling has been rolled. When placed in the oven they are put on higher heat with moving covering the tops of the rolls, this allows them to become brown and crispy on top add a little crunch. The last and most important aspect is to have them with a lingonberry jam or sauce[26]. Lingonberries are iconic in Northern European cuisine, especially Finnish, they are even mentioned in Finnish poetry[15]

Figure 8

References

1. August, M. (n.d.). *REGIONAL STUFFED CABBAGE ROLLS (REGIONALNE GOŁĄBKI)*. Flavor of Poland. https://www.flavorofpoland.com/main-meals/stuffed-cabbage-rolls
2. Benoit, D. J. (2023, February 8). *A history of tomatoes: University of Vermont Extension: The University of Vermont*. uvm.edu. https://www.uvm.edu/extension/news/history-tomatoes
3. *Cabbage production - worldmapper*. World Mapper. (n.d.). https://worldmapper.org/maps/cabbage-production/
4. *Cabbage rolls: Tracing the history of a Mediterranean staple*. rimping.com. (2025, July 4). https://www.rimping.com/blog/7706/cabbage-rolls-history-en
5. *Cabbage: Cabbage*. Smart Gardener - simply grow great food. (n.d.). https://www.smartgardener.com/plants/7440-cabbage-cabbage/overview
6. *Category:1810s maps of Poland*. Wikimedia Commons. (n.d.). https://commons.wikimedia.org/wiki/Category:1810s_maps_of_Poland
7. Cismaru, J. (2022, December 11). *Romanian cabbage rolls (sarmale)*. Jo Cooks. https://www.jocooks.com/recipes/sarmale/
8. CZAPLA, Z., & LICZBIŃSKA, G. (2013). Height as an indicator of economic status in the Polish territories under Russian rule at the turn of the 19th to 20th century. *Journal of Biosocial Science*, *46*(5), 686–697. https://doi.org/10.1017/s0021932013000503
9. Debi. (2024, March 14). *Traditional Polish style stuffed cabbage rolls (no canned soup)*. Happily Unprocessed. https://happilyunprocessed.com/traditional-polish-style-stuffed-cabbage-rolls-no-canned-soup/
10. Dorie. (2021, October 20). *Traditional Romanian cabbage rolls (sarmale)*. Mostly Greek. https://mostly-greek.com/2019/04/25/traditional-romanian-cabbage-rolls-sarmale/
11. *The geography of Poland*. Blue Green Atlas - The Geography of Poland. (n.d.). https://bluegreenatlas.com/poland.html#Climate
12. Guo, W. (2022, June 7). *Chinese steamed cabbage rolls (翡翠包肉)*. Red House Spice. https://redhousespice.com/chinese-steamed-cabbage-rolls/#recipe
13. Hernik, J., Król, K., Prus, B., Walczycka, M., & Kao, R. (2021). *Indicators of change in Cultural Heritage*. Publishing House of the University of Agriculture in Krakow.
14. *The history of Campbell Soup Company aka Campbell's*. RecipeReminiscing. (2016, April 14). https://recipereminiscing.wordpress.com/2016/04/14/the-history-of-campbell-soup-company-aka-campbells/
15. Jenni. (2020, September 11). *Food from the nature - luscious lingonberries*. Out in the Nature. https://www.outinthenature.com/food-from-the-nature-luscious-lingonberries/
16. Kaniszewski, S., & Cieslak-Wojtaszek, W. (1994). Vegetable production in Poland. *Acta Horticulturae*, (371), 21–28. https://doi.org/10.17660/actahortic.1994.371.1
17. Kirchner, R. (2019, October 20). *A historical look at the dolma*. chefRDN. https://www.ranellekirchner.com/blog/a-historical-look-at-the-dolma
18. Kucia, M. (n.d.). *The culinary universe: To Poland from foreign lands | Article | Culture.pl*. Culture.PL. https://culture.pl/en/article/the-culinary-universe-to-poland-from-foreign-lands
19. Love, A. (2023b, June 26). *A short cabbage roll history lesson*. Midnight Snack. https://eatnik.substack.com/p/a-short-cabbage-roll-history-lesson

20. Mabry, M. E., Turner-Hissong, S. D., Gallagher, E. Y., McAlvay, A. C., An, H., Edger, P. P., Moore, J. D., Pink, D. A., Teakle, G. R., Stevens, C. J., Barker, G., Labate, J., Fuller, D. Q., Allaby, R. G., Beissinger, T., Decker, J. E., Gore, M. A., & Pires, J. C. (2021). The evolutionary history of wild, domesticated, and feral *brassica oleracea* (Brassicaceae). *Molecular Biology and Evolution*, *38*(10), 4419–4434. https://doi.org/10.1093/molbev/msab183
21. Machnicki, M. (2023, April 17). *Gołąbki! the history of Polish stuffed cabbage*. Polana Polish Food Online. https://www.polana.com/blogs/blog/golabki-the-history-of-polish-stuffed-cabbage?srsltid=AfmBOopHZKf3wtmorgx0aMGyINLs6ltbU_enP-UwnKIWRwpC-BnGz3D5
22. Mansikkamäki, S. (2025, September 15). *Vanhanajan Kaalikääryleet Katoavat Herkuttelijoiden suihin suoraan pelliltä – Liisa, 90, Paljastaa Salaisen maustekimaran Täydellisiin Kääryleisiin*. Kotiliesi.fi. https://kotiliesi.fi/ruoka/vanhanajan-kaalikaaryleet/
23. Michalczuk, L. (2013). Iseki-Food. https://db.iseki-food.net/sites/default/files/digital_library_attachments/olsztyn_lech_michalczuk_20160912_0.pdf
24. Otao Kitchen. (2021, February 9). *The importance of steam in Chinese cookery*. otaokitchen.com.au. https://otaokitchen.com.au/blog/learning/the-importance-of-steam-in-chinese-cookery-b292.html?srsltid=AfmBOopU1lfpWO2sGy_7do4pOFaLxQDHlHL_H8cX0uZt33yzghTmj4EQ
25. Rebecca. (2025, May 8). *The history of the tomato*. gardenstead. https://www.gardenstead.com/the-history-of-the-tomato/
26. Scheck, C. (2025, March 12). *Finnish cabbage rolls recipe (Kaalikääryleet)*. Sisu Homemaker. https://sisuhomemaker.com/cabbage-rolls-recipe/
27. Stewart, M. (2024, September 26). *Martha's mom's stuffed cabbage recipe is a classic*. Martha Stewart. https://www.marthastewart.com/315672/stuffed-cabbage
28. *Sukkot recipes for welcoming fall*. Jewish Food Society. (2023, September 25). https://www.jewishfoodsociety.org/collections/sukkot-recipes
29. Troika. (n.d.). *Troika*. https://troikafoods.com/2021/04/13/history-of-cabbage-rolls/
30. Wade, J. (2024, January 11). *Grandma's golumpki - stuffed Polish cabbage (Gołąbki)*. Food Folks and Fun by Jillian Wade. https://foodfolksandfun.net/golumpki/
31. Wandycz, P. S. (2025, November 29). Poland - economy, manufacturing, agriculture | britannica. https://www.britannica.com/place/Poland/Economy
32. Wikimedia Foundation. (2025, November 5). *Brassica oleracea*. Wikipedia. https://en.wikipedia.org/wiki/Brassica_oleracea
33. Zohary, D., Weiss, E., & Hopf*, M. (2012). Vegetables and tubers. *Domestication of Plants in the Old World*, 153–162. https://doi.org/10.1093/acprof:osobl/9780199549061.003.0007

GRAAVILOHI

(Finnish Gravlax)

A Finnish History of Procuring, Curing, and Perservering

Tucked along the coasts of the Baltic Sea, Finland is a land of striking contrasts, defined by its dense boreal forests, thousands of freshwater lakes, and rugged coastline. Finland's alternating long winters and short, abundant summers shape both its natural ecosystems and human activity. While the international spotlight often focuses on the country's infamous sauna culture, the culinary environment sets its roots deep into the ecology and rhythms of the land.

Figure 1

Figure 2

Finland's inland waters cover about 10% of its surface area, and over 70% of the country is forested land (Britannica). Its terrain offers freshwater ecosystems, woodlands, and many opportunities for both land and water based foraging. Summers are short but blessed with long daylight hours, while the winter freezes many of the country's waterways over. The brackish waters of the Baltic Sea provide the ideal climate for migrating Atlantic salmon (salmo salar).

“X” marks the... Salmon?

Figure 3

Roughly translated into English, the title of “gravlax” comes from the Northern Germanic words “gräva” (to dig or bury) and “lax” or “laks” (salmon). The title is reflective of Graavilohi’s origin. Historically, coastal and fishing communities in Scandinavia would salt and bury fresh-caught salmon in the earth or sand to ferment and preserve it for the winter.

The fermentation method of creating gravlax is traced back to Medieval Scandinavia, which led to a dish with a strongly flavoured fermented fish. Fishermen prepared the salmon by salting it and burying it in sand above the high-tide line.

The fermentation process is no longer used; modern gravlax is cured in a dry marinade of salt, sugar and aromatics (often dill), for a period from twelve hours to several days.

While the salmon cures, moisture is drawn out through osmosis to create a concentrated brine of salt and sugar, which is also utilized in Scandinavian cooking.

Figure 5

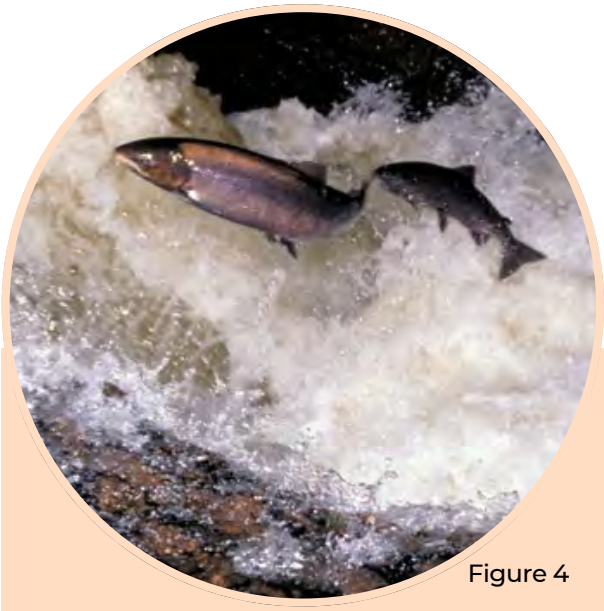


Figure 4

DID YOU KNOW?

The first reference of gravlax dates back to 1348 in the Diplomatarium Nervegicum, where it is mentioned in relation to a delegate of a salmon fishery!

The taste of graavilohi has greatly changed over time. Once a potent, slightly sour, pungent fish flavour, modern graavilohi evolved into a rich, milder fish flavour as curing techniques were refined. By the 18th century, graavilohi moved beyond the home kitchen and into communal meals throughout Nordic regions. (Swedish Spoon, 2019)

Recipes + Preparation

Graavilohi

Ingredients:

- 500g fresh salmon fillets, skin on
- 2 cups coarse sea salt
- 2 cups sugar
- ½ cup chopped fresh dill

Instructions:

1. Mix salt, sugar, and dill in a small bowl to create a dry marinade.
2. Rub the mixture evenly over the salmon fillet
3. Place the fillet in a shallow dish and cover with plastic wrap. Weigh down with a plate or stone.
4. Refrigerate for 24-48 hours, depending on desired cure intensity.
5. Remove fillet from marinade, rinse gently under cold water, and pat dry.
6. Slice thinly against the grain and serve cold with mustard dill sauce and rye bread.

Finnish Rye Bread (Ruisleipä)

Ingredients:

- 500 g whole rye flour
- 10 g salt
- 300 ml water
- 100 g sourdough starter

Instructions:

1. Mix flour, salt, and starter in a bowl. Gradually add water, kneading into a dense dough.
2. Cover and allow to ferment at room temperature for 12–16 hours.
3. Shape into a loaf and place in a greased pan.
4. Bake at 200°C for 45–50 minutes until firm and dark brown.

Mustard Dill Sauce Recipe (hovimestarinkastike)

Ingredients:

- 2 tbsp Dijon Mustard
- 1 tbsp sugar
- 1 tbsp white wine vinegar
- 2 tbsp finely chopped fresh dill
- 4 tbsp vegetable or rapeseed oil
- Salt and pepper to taste

Instructions:

1. Combine mustard, sugar, and vinegar in a bowl.
2. Slowly whisk in oil until emulsified.
3. Stir in dill and season with salt and pepper.
4. Refrigerate until serving.

Preparation: Graavilohi

Graavilohi begins with the selection of fish. Salmon, ideally sourced during seasonal runs, is best suited for the dish. The fat content of salmon is optimal for the curing process and flavour profile of graavilohi. Fillets are trimmed of bones while keeping the skin intact. Ensure pin bones are removed. Once salmon is prepared, coat with the dry marinade mix of salt, sugar and dill. Place salmon in a shallow dish, weigh it down, and leave it in a cool environment for 24-48 hours, depending on your desired texture. The salt and sugar draw moisture out from the salmon while the dill adds aromatic notes to the fish. Once cured, remove the salmon from the container, rinse, and pat dry.

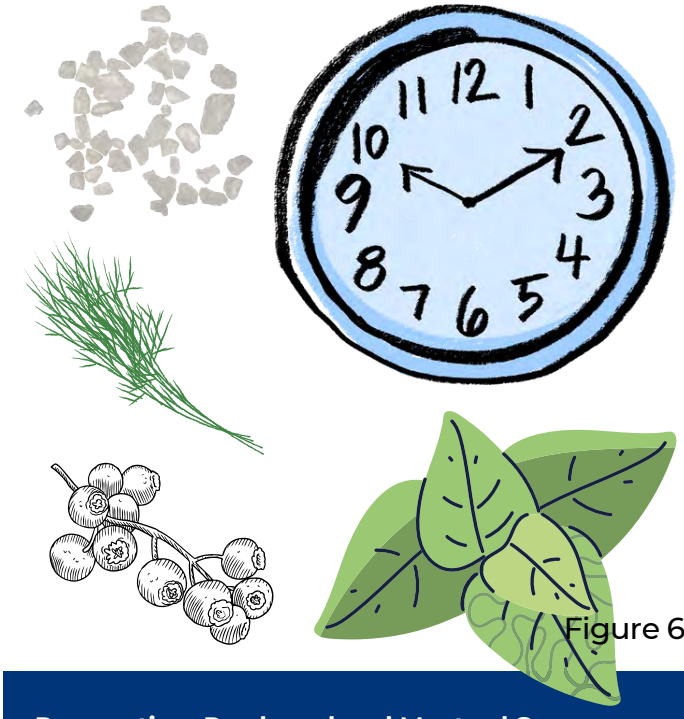


Figure 6

Preparation: Rye bread and Mustard Sauce

The mustard dill sauce is prepared by emulsifying Dijon mustard, sugar, vinegar, and oil, then folding in freshly chopped dill and seasoning with salt and pepper.

Finnish rye bread serves as the base for the salmon and sauce. Made by combining rye flour, salt, and sourdough starter, and gradually adding water to form a dense dough. It ferments for 12-16 hours, developing a signature tangy taste and extending shelf-life.

"LUJA TAHTO VIE LÄPI HARMAAN KIVEN."

— "A STRONG WILL TAKES YOU THROUGH THE GREY STONE."

This Finnish proverb embodies the spirit of a Finn. The icy winters, dense forests, and long winters did not provide a easy environment to inhabit.

Figure 7

Figure 8

Figure 5

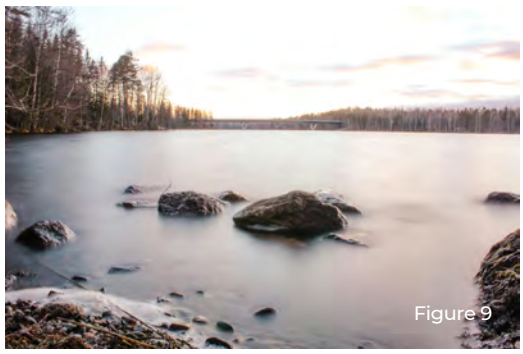


Figure 9

V00974742

Dill and Rye - oh my!

Dill and rye, two foundational ingredients to graavilohi and rye bread, reflect the biogeophysical realities of Finland's Northern climate and highlight the agricultural adaptations of the Finnish community.

Dill thrives in Finland's cool summers and mineral-rich soils. Cultivated in Northern Europe during the Middle Ages, its aromatic seeds and fronds are well loved for their flavour and medicinal properties, suggested to aid digestion and have antimicrobial effects (Smith, 2015). These conditions encourage the production of the plant's aromatic oils, making it both abundant and flavourful. Its prevalence in Finnish gardens and farms historically made it accessible for communities who used it as an ingredient to preserve, cure and season meals.

Rye speaks directly to the resilience required in subarctic agricultural practices. Rye, unlike wheat or barley, can withstand cold temperatures, nutrient-poor soils, and short growing seasons. This allows it to thrive as Finland's most dominant grain since the medieval period. Most commonly used in sourdough, rye reflects centuries of Finns developing recipes to survive through long winters.

Social Salmon: Grounding Graavilohi to Community

Salmon has been central to Finnish diets and culture for millennia. Archaeological evidence from coastal and riverine settlements, including Fishbones and ancient fishing tools, indicate that salmon was a primary protein source as early as the Iron Age (circa 500 BCE - 1200 CE) (Fredborg, 2019). It's seasonal migrations from the Baltic Sea into freshwater rivers provided communities with predictable harvests, allowing them to prepare for preservation and winter sustenance. While Salmon's abundance was not guaranteed, environmental variability, overfishing and climatic shifts influence local populations. This has shaped traditional knowledge about fishing times, techniques and habitat protection (Berg, 2017).

Historically, fresh salmon was reserved for immediate consumption during peak fishing seasons, while surpluses were preserved for drying, smoking, fermenting or curing.

The method of curing salmon with salt, sugar, and dill became widespread in Finland by the 18th century. This reflects trade developments such as access to imported salt and sugar, as well as local herbal traditions that incorporated aromatic plants like Dill to enhance the flavour (Saveur, 2008)

The procuring and curing of graavilohi is a social practice. Traditional salmon fishing involved coordinated efforts within villages and families. Fish were often caught using hand nets, fish traps, or weirs. While the initial method of graavilohi consisted of burying the fish in the sand, communities developed different processes of preserving the fish. Preparing the fish was a ritualized event, where families and communities gathered to process the fish and pass on the tradition to younger generations.

Figure 10 (above):
Chinook Salmon (oncorhynchus tshawytscha), caught and filleted by my father, Jason, to be used for graavilohi.

Atlantic salmon has held significant ecological importance in Scandinavian countries, and Finland is no exception. It is considered to be the best fish for the production of graavilohi due to the high fat content and firm texture. The species' life cycle spans freshwater rivers, leading into brackish estuaries, and ending in the Atlantic Ocean, making salmon attuned to all sorts of biogeophysical environments in western and northern Finland. The Tornionjoki and Kemijoki rivers predominantly support some of Europe's largest salmon runs due to their high-oxygen supply. Finnish communities have been integral to the understanding of Atlantic salmon's migratory behaviour and the understanding of river morphology.

COMPLIMENTS TO THE CHEFS

Above: My Dad with a new “catch of the day”

Left: My great-grandparents, who immigrated from Oulo, Finland.

I’d like to dedicate this to my dad, whose interest in salmon (and the many ways of preparing it) inspired me to write this article. His love for the outdoors and his great patience for fishing shaped the way I view the world and connect to my family’s heritage. Thank you, Dad, for giving me both the knowledge and the curiosity to carry these traditions forward.

REFERENCES

Berg, L. (2017). Salmon cultures: Ecological histories of northern fisheries. Nordic University Press.

Bone, E. (2008, May 7). Gravlax with mustard-dill sauce. Saveur. https://www.saveur.com/article/Recipes/Gravlax-with-Mustard-Dill-Sauce/

Encyclopaedia Britannica. (n.d.). Finland. In Encyclopaedia Britannica. Retrieved December 2, 2025, from https://www.britannica.com/place/Finland

Fredborg, M. (2019). Nordic preservation traditions: Food, memory, and material culture. Helsinki Academic Publishing.

Johnson, T. (2020). The Nordic table: Regional flavors and culinary techniques. Aurora Press.

Salaman, R. (2016). Grains of the North: Agricultural history of Finland and Scandinavia. Boreal Studies Institute.

Virtanen, K. (2021). "Landscapes of salt: Traditional curing practices in Finnish coastal communities." Journal of Nordic Foodways, 14(2), 45–63.

Heikkilä, J. (2018). "River ecologies and salmon migration in Northern Finland." Scandinavian Environmental Review, 22(1), 1–19.

Koskinen, S. (2015). From river to table: Freshwater resources and community identity in Finland. University of Lapland Press.

Fredriksson, A. (2020). "Seasonal food rituals in Finnish households." Nordic Cultural Studies, 9(3), 77–101.

Niemi, T., & Rautio, P. (2017). Crops of the cold north: Scandinavian agrarian adaptations. Polar Agriculture Press.

Hakala, E. (2013). "Salmon in Nordic folklore: Symbolism, livelihood, and myth." Folklore Studies of the North, 6(1), 33–50.
Lindholm, J. (2019). Weirs, nets, and narratives: Traditional fishing technologies of Finland. Finnish Heritage Society.

Mäkelä, L. (2014). "Culinary transformations in Finland: From preservation to gastronomy." Journal of Northern European Food History, 3(2), 15–29.

PHOTO CREDITS:

Figure 2 Bone, E. (2008, May 7). Gravlax with mustard-dill sauce [Photograph]. Saveur. https://www.saveur.com/article/Recipes/Gravlax-with-Mustard-Dill-Sauce/

Figure 8: Gravlax with mustard-dill sauce on rye bread [Photograph]. (n.d.). Bon Appétithttps://assets.bonappetit.com/photos/57b1ebf4f1c801a1038bdf37/master/w_1280%2Cc_limit/mare_dilled_gravlax_with_mustard_sauce_v.jpg

Figures 3,4,9 Returning Atlantic salmon in river [Photograph]. (2022, January). The Fishing Daily. https://thefishingdaily.com/wp-content/uploads/2022/01/fig1_top_return_salmon.jpg

Figure 5: Sprig of fresh dill [Photograph]. (n.d.). SciencePhoto. https://www.sciencephoto.com/media/1208063/view/sprig-of-fresh-dill

Figure 1, 3: Sunset over Lake Saimaa, Finland [Photograph]. (n.d.). Interrail. https://www.interrail.eu/content/dam/images/mastheads/finland-lake-saimaa-sunset.adaptive.1024.1595586675159.jpg

Figures 10, 11, 12: family photos

ITALIAN WEDDING SOUP

Brief History

The name “Italian Wedding Soup” creates an image of a big puffy white gown and a room full of music, laughter and love. But it does make you question, what does soup have to do with a wedding? The answer is nothing! The name derived from the idea of “marrying” the greens to the meats in the soup[1]. The original Italian name of the soup is actually “‘Minestra Maritata”, which translates to “wedding soup” or “wedded broths”[2]. Some recipes also share a story of the meat representing to groom and the vegetables representing the bride, coming together harmoniously in the broth.

This soup can be made many different ways depending on what you have on hand. It was originally known as a peasant dish because it was made with pork and chicken stock, along with cabbage and other bitter greens that were easily accessible[1]. Also known as “la cucina povera”, or the “cooking of the poor”[3].

Minestra Maritata is a central part of Neopolation cuisine, and known to be one of the best representations of Neopolation gastronomic culture[4]. The earliest known mention of this soup was through a soup of similar likeness called “olla potrida”, arriving in Naples with the Spanish in 1300. It was mostly prevalent across southern Italy, more specifically, Campania.

It was popularized in America through brands like Campbell soup, marketed as “A delicious blend of all-beef meatballs, pasta, spinach and herbs marry perfectly in a savoury broth.”[5]. Historically, pasta was not added to the soup as it was not as accessible, both in terms of affordability and attainability.

Figure 1.

Follow the recipe below and you can have a hearty bowl of Italian Wedding Soup too!

Why Pork?

In the original recipes, Minestra Maritata was made with pig bones and scraps remaining from the annual pig slaughter[2]. Typically it was pig feet, ribs and shoulder that were included. Casertana is one of six pig breeds that are Indigenous to Southern Italy, specifically Campania. This specific breed produces a large amount of fat, making it easier to feed large amounts of people which was important in these trying times[7]. Casterana is known for it’s meat, but unfortunately it is considered a species at risk according to DAD-IS (Domestic Animal Diversity Information System)[8].

This soup was prepared around holidays such as Chrismtas and Easter following yearly tradition of sacrificial ritual to connect with their God[9]. There were many rules and rituals surrounding the slaughtering and processing of the pig. One of these rituals was called spido/spito in which a tray containing different cuts of meat is distributed to neighbours when it is slaughtered, under the custom that the favour will be returned when it comes time for the next slaughter . This was a peasant practice because the community would take care of each other, otherwise people would starve. Nowadays, meat is much more accessible so spido is only ever really extended to family and close friends[10]. Another part of the ceremony is keeping the pig clean and fed throughout its entire life[11]. There is a deep respect attached to the rearing of livestock.

Etymology of the name

Breaking down the name Minestra Maritata refers to “wedded broths”. The word Minestra derives from the Latin word ministrare, meaning “to administer”, and it is believed that this word reflects the serving of the soup/broth from one pot[12]. Minestra was known as the poor mans meal, made from frugal ingredients that were quick and easy.

Another type of “soup” you may come across when looking at this recipe is zuppa, which derives from the Gothic word suppa, meaning “soaked bread”[12]. Zuppa is broth served with bread in it. As the popularity of Minestra Maritata spread across North America, the recipe began to change and people added pasta, bread and other ingredients to the classic dish. In many recipes, there is bread included in the meatballs to help them keep their form (meatballs were another new addition, as it was usually scrap meats!). The American version of Italian Wedding Soup has more similarities with a classic Zuppa, then it does to the original Minestra Maritata.

Volcanic Veggies?

It seems as though there was a great interest in hillside areas because they were quite useful for the rearing of pigs of Casertana pigs[13]. Casertana pigs were domestic pigs that were reared outdoors and left to graze the hillside. This recipe stems from the south of Italy. The most populated lands for farming were the plains around Mount Vesuvius, which is known for it’s fertile volcanic soil[14]. This is an example of terroir because the soil play a significant role in impacting how the vegetables tase and are grown in the region[14]. The volcanic soil is built up of lava, ash and pumice (volcanic stone). Because all of these components are so mineral rich it results in a soil that contains the essentials for growth such as potassium, magnesium, and calcium[14].

Get with the times!

In the end of the nineteenth century, millions of people from Southern Italy left their lands to search for a better life elsewhere, one of those places being North America[15] . Southern Italy’s population is densely populated with farmers, and it is also extremely impoverished in comparison to North and Central Italy[16]. Italy relies on agriculture as it’s primary economic activity, and this was crutch was threatened post World War II because of the economic losses they faced. There was a belief post war that the modernization of Southern Italy would solve the suffering of the population, as structural gaps had reached an all time high[15]. This argument for agrarian reform included industrialization, distribution of land and diversification of production, thus creating The Extraordinary Intervention (1950-1962)[15].

Italian governments sought to improve living situations through land reform programs, yet in doing so caused further harm through social tensions between landowners, and left peasants with no choice but to stay in poverty[17].

Adapation over time

Across North America Minestra Maritata has been transformed into the Italian Wedding Soup that you would find in an Olive Garden, attached to a long winded story about it’s importance to Italians and happy marriage[18]. New additions to the recipe include ingredients like nutmeg or fennel, pasta (orzo, pastina or other small shapes) and most importantly the meatballs. As stated previously, the meat cuts included in this soup were mostly just scraps. The meatballs add a new level of heartiness with the ground beef and pieces of bread, that in addition to pasta creates a one bowl meal that is sure to satisfy[19] . What was originally a broth based, lean and nutritious soup becomes something else entirely.

Region

Campania is a small region located in the south of Italy, it's capital is Naples[20]. It is home to important sites worldwide such as Pompeii, Mount Vesuvius and Herculaneum, to name a few[20]. The name Campania derives from the Latin word campus, meaning field[21]. There are large spaces of agricultural plains, but it is mostly hills and mountains (such as Mount Vesuvius)[21]. Campania faces the Tyrrhenian Sea on the West side, thus impacting the climate across the coastal regions[21]. Campania's morphological setting exhibits to climatic zones, one mild and one rigid[22]. The winters are cold and rainfall is heavy across the region, average yearly low being 11.0°C and average yearly high being 20.9°C[21].

Bitterness as a key factor

Bitterness is a key feature of Italian gastronomy as it acts as a contrast to rich meats and cheeses[23]. This is why there is kale, broccoli rabe, cabbage, and other bitter greens in Minestra Maritata, to contrast the rich, salty taste of the pork. To forage for bitter vegetables required knowledge and skill in order to prepare the tough greens into dishes that tasted good, as well as filled the stomach.

When this dish became Americanized it lost some of it's traditional vegetables, and opted for a more "palatable" approach by opting for herbs and spinach, instead of bitter leafy greens.

Figure 2.

This is a map that features Campania, Italy[31].

FUN FACT!

In Italian, bitter translates to amaro. Amaro is an Italian herbal liqueur that is taken after dinner as a digestif[23].

FUN FACT!

One belief is that pig eyes are quite similar to human eyes, and if the butcher received a look from the pig before or during the slaughter, then the butcher would be haunted by the “evil eye” or the meat would rot. To avoid being caught by the evil eye, the butcher would throw it as far away as possible or against the ceiling to ward off the evil [24].

Setting a good example

Minestra Maritata is said to be one of the best examples of Neapolitan gastronomy, prioritizing a less is more approach, the soup focuses on simplicity which showcases its wholesome ingredients. Cuisine in Campania highlights fresh produce with easy and quick formations, usually involving very little prep but a a long cook time stewing or braising[25]. A “peasant soup” fits perfectly into this! Soups made of many bitter, green vegetables have only stayed popular in Mediterranean areas. There has been a renewal in interest from younger generations of foraging wild plants or non-cultivated species, as well as restoring species at risk[25].

Leafy greens...and broccoli

This recipe can be made with whatever vegetables are accessible, but classically it is full of bitter leafy greens such as kale, escarole, cabbage and/or broccoli. Kale is known as one of the oldest species of Brassicaceae in the world, thought to have originated over 4,000 years ago in the Mediterranean basin[26]. It made it’s way to Southern Italy through trade under the name Cavolo Greco (Greek Cabbage), but then became known as Torzella[26]. Torzella was a very common plant that was grown in peasant fields, as it grew without very little maintenance and produced many shoots. Since the World War II, Torzella has been facing risk of disappearance from agriculture as land faced destruction through agrarian land reform[26].

Another important ingredient in Minestra Maritata was escarole. Originally found mostly in Mediterranean gastronomy, escarole was known for it’s medicinal cooling qualities and flavour[27]. Escarole is a part of the chicory family[28]. This bitter leafy green, similar to lettuce, is packed with vitamins and minerals and can withstand long cooking times, perfect for Minestra Maritata.

Finally, broccoli, or more specifically broccoli rabe. It is also known as cime di rapa or friarielli in Southern parts of Italy, such as Campania[28]. It has nutty and earthy flavours, and spending on the maturity of the plant it differs in bitterness[29] . It is believed to have been introduced through Roman influence in the 16th century, and to have made its concentrated dominance in Southern Italy due to the warmer climate and soil [30].

The agri–food industry plays an huge role in maintaining the gross domestic product, producing the largest monetary value in Campania[22] .

NOT SO FUN FACT !

Campania has been named one of Italy’s most contaminated territories due to an extremely large number of illegal industrial waste dumps in their coastal sector, the Tyrrhenian Sea on the West side[22]. There have also been several accounts of mass amounts of hazardous waste dumped illegally in several agricultural fields, these accounts even going as far as to connect this disposal to cancer[22].

ITALIAN WEDDING SOUP

Ingredients

Greens:

- 4 Cups of Spinach (Chopped Roughly)
- ½ Head of Savoy Cabbage (Sliced Thin)
- 1 ½ Cup Broccoli Rabe (Chopped Roughly)
- *Optional: 1 Small Fennel Bulb

Vegetables:

- 1 Large Yellow Onion
- 4 Cloves of Garlic
- 2 Small Stalks of Celery (Diced)
- 2 Small Carrots (Chopped)

Meatballs:

- One Package of Italian Sausage (Remove Casing and shaped)
- One Package of Ground Pork or Chicken
- ½ Cup of Stale Bread Crumbs
- 1 Large Egg (beaten)
- 1 TBSP of Italian Seasoning

Broth:

- 3 Cups of Chicken Broth
- 3 Cups of Vegetable Broth

Other:

- Salt and Pepper
- Pinch of Crushed Red Pepper
- 2 TBSP Olive Oil

*Optional:

- 1 ½ Cooked Orzo

This was inspired by a recipe my Nonna shared with me. I have chnaged things a bit to fit what I saw in other recipes, but the bones of the recipe are the same[6].

Recipe

1. Gather ingredients.
2. In a large stock pot, heat 1 tbsp of olive oil and garlic until fragrant on medium-high heat. Add crushed red pepper, then add onion, celery and carrot. Cook 4-5 minutes.
3. Add broth, cover soup and bring to a boil.
4. Add sausage. Lower the heat, cover and let simmer for 20-30 minutes.
5. While soup is simmering, begin preparing your meatballs. Mix your ground meat of choice with the beaten egg. Add breadcrumbs and season with Italian spices and salt and pepper. Mix and form small balls about the size of a large grape.
6. Remove sausages from each individual casing and form small balls about the same size of the meatballs.
7. Preheat oven to 375° and place your meatballs, as well as the sausage balls, on a well oiled tray. Cook for 15 minutes or until browned.
8. At this point, the soup will have simmered for 30 minutes. While the meatballs and sausage cook, add the broccoli, spinach and cabbage. Let simmer while the meatballs cook for 15 minutes
9. When the meatballs are done, add them to the soup and continue cooking uncovered for another 20 minutes.
10. This is where you would add the orzo should you choose to add, simply just add it in right before you serve.
11. Serve with warm bread and butter, and enjoy!

References

1. Parla, K. (2015, June 18). Italian wedding soup has nothing to do with actual weddings.https://www.foodrepublic.com/2015/03/12/italian-wedding-soup-has-nothing-to-do-with-actual-weddings/
2. Pedrelli, G. (2023, September 20). You think you know the Italian wedding soup history? Think again. Nonna Box. https://www.nonnabox.com/italian-wedding-soup-history/
3. Memorie di Angelina. (2013, February 3). Minestra maritata: The original wedding soup.https://memoriediangelina.com/2013/02/03/minestra-maritata-the-original-wedding-soup/
4. Pirollo, A. (2024, December 3). Minestra maritata ricetta napoletana originale. https://www.lacucinaitaliana.it/storie/piatti-tipici/minestra-maritata-ricetta-napoletana-originale/
5. Campbell Soup Company. (n.d.). Campbell's Italian wedding soup. https://www.campbellsoup.ca/product/campbells-italian-wedding-soup/
6. Mackie, D. (2025). *Personal Communication.*
7. Matassino, D. (2010, January 3). Morphological traits, reproductive and productive performances of Casertana pigs reared outdoors. https://doi.org/10.4081/ijas.2006.139
8. Agraria.org. (n.d.). Casertana pig breed. https://eng.agraria.org/swine/casertana.htm
9. Food and Agriculture Organization. (n.d.). Browse by country and species. https://www.fao.org/dad-is/browse-by-country-and-species/en/
10. De Lucia, F. (2020). Domestic slaughter in southern Italy with special reference to Campania region. ResearchGate. https://www.researchgate.net/publication/341517727_Domestic_Slaughter_in_Southern_Italy_with_special_reference_to_Campania_Region
11. Bleeding Espresso. (2011, January 18). The importance of the pig in southern Italy. https://bleedingespresso.com/2011/01/the-importance-of-the-pig-in-southern-italy.html
12. HubPages. (200, December 14). Italian soups: The difference between zuppa and minestra. https://discover.hubpages.com/food/Italian-Soups-The-Difference-between-Zuppa-and-Minestra
13. Tecce, S. (2019, September). The Origins and Evolution of Pig Domestication in Italy: A Regional and Diachronic Study of Husbandry Practices. University of York. https://etheses.whiterose.ac.uk/id/eprint/25783/1/TECCE%20PHD%20THESIS%202019_FINAL.pdf
14. Napoli Wine Tours. (n.d.). The Soil of Mount Vesuvius: A Fertil Legacy. https://www.napoliwinetours.com/en/il-suolo-del-vesuvio-eredita-fertile_eng/
15. Cringoli, G. (2025). State intervention to bridge the gap: The modernisation of rural Southern Italy (1950–1962). Rural History, 36(2), 386–402. doi:10.1017/S0956793325000020
16. Hildebrand, J. (1955, October). The Postwar Italian Economy: Achievements, Problems, and Prospects. https://www.jstor.org/stable/2009097
17. Bailey, R. (1966). The Underdeveloped Areas within the Common Market and Economic Development in Southern Italy, 1950–1960. International Affairs (London), 42(3), 513–514. https://doi.org/10.2307/2612226
18. Food Blog Alliance. (2025, August 19th). Olive Garden Italian wedding soup recipe. https://foodblogalliance.com/olive-garden-italian-wedding-soup-recipe/
19. Gritzer, D. (2025, October 15.). Italian-American wedding soup. https://www.seriouseats.com/italian-american-wedding-soup-11829509
20. Summer in Italy. (n.d.). Campania. https://www.summerinitaly.com/guide/campania

References

21. Blue Green Atlas. (n.d.). Italy: Campania region. https://www.bluegreenatlas.com/italy_campania.html

22. Chengkai, Q,. et al. (2022, August 23). The contribution of persistent organic pollutants to the environmental changes in Campania region, Italy: Results from the Campania Trasparente project. https://doi-org.ezproxy.library.uvic.ca/10.1016/j.gexplo.2022.107071

23. Ross, M. (2025, September 23). Italy's bitter balance: Turning Sharp Flavours Into Rituals. https://appetitomagazine.com/features/italys-bitter-balance

24. Soppelsa, O & Martino, C. (2020). Domestic Slaughter in Southern Italy, with special reference to Campania Region. Ethnobiology and Conservation. DOI:10.15451/ec2020-05-9.16-1-17

25. Motti, R,.et al. (2020). The Contribution of Wild Edible Plants to the Mediterranean Diet: An Ethnobotanical Case Study Along the Coast of Campania (Southern Italy). https://doi-org.ezproxy.library.uvic.ca/10.1007/s12231-020-09504-1

26. Slow Food Foundation. (n.d.). Curly torzella cabbage. https://www.fondazioneslowfood.com/en/slow-food-presidia/curly-torzella-cabage/

27. Savory Suitcase. (2023, December 2). The history of escarole in culinary traditions. https://savorysuitcase.com/the-history-of-escarole-in-culinary-traditions

28. Italian Chef. (2025, February 22). Escarole Siciliano: A culinary journey to Sicily through a leafy green. https://italianchef.org/escarole-siciliano-a-culinary-journey-to-sicily-through-a-leafy-green/

29. Garcia, P. (n.d.). What is broccoli rabe called in Italian? https://eatingchoice.com/what-is-broccoli-rabe-called-in-italian/

30. Sun Cake Mom. (n.d.). The history of broccoli in Italian cooking. https://www.suncakemom.com/recipes/the-history-of-broccoli-in-italian-cooking/

31. Free World Maps. (n.d.). Campania, Italy. https://www.freeworldmaps.net/europe/italy/campania.html

LATKES: *the story of a Hanukkah staple*

"Fun a proste bulbe kumt arois de geshmakste latke"

"From a humble potato comes the most delicious latke". Crispy, golden discs of shredded potatoes and onions, shining with oil and slathered with apple sauce or sour cream: they're about as ubiquitous a symbol of the season as spinning dreidels, stacks of chocolate coins, or a glowing menorah. Latkes are among the most iconic Jewish dishes, enjoyed year-round but particularly associated with the eight-day holiday of Hanukkah. But the latkes we know and love to nosh today (figures 1, 3) are composed of ingredients with global histories. They're also relatively new on the long timeline of Jewish cuisine.

Figure 1: latkes with sour cream and apple sauce.

So how did a dish made of a tuber from South America and a bulb from Mesopotamia come to be so favoured by religious communities in Eastern Europe commemorating the histories of their Middle Eastern ancestors? What is the secret ingredient to *extra* tasty latkes? And which is the superior latke topping: sour cream or apple sauce?

Shedding some light on the story

For centuries, Jewish people have been celebrating the festival of Hanukkah by eating foods fried in oil[1,2,3]. But why?

The simplified version of the story goes that in circa 160 BCE, Judea was under the control of the Seleucid Empire, when a tribe known as the Maccabees staged a revolt that led to the reclamation of the Jewish temple in Jerusalem[1,2]. In the wake of this military victory, the holy temple was rededicated and the oil lamp relit. The rededication ritual required the lamp to stay lit for eight days and nights, but there was only enough olive oil for one night - so when the oil lasted the full eight days and nights, it was considered a great miracle[1,2]. Eating foods fried in oil connects people to this story[1] - as does lighting the Hannukah menorah (figure 2) on each of the eight nights of the holiday.

A-head of her time

Figure 2: a Hanukkah menorah.

In another story referenced at Hanukkah, the heroine Yehudit plied an Assyrian general with cheese and wine until he passed out and she was able to cut off his head, saving her people from siege[1,2]. For generations before potato latkes came on the scene, people were enjoying pancakes made of soft cheese to honour Yehudit[2,3].

Figure 3: latkes with apple sauce.

The oldest version of a cheese fritter fried in olive oil to celebrate Hanukkah comes from Italy in the Middle Ages[2,3]. This proto-latke was the most common form of the dish for centuries[3]. But for Jews in central and western Europe, olive oil was nearly impossible to come by[3]. Many German Jewish communities raised geese, and their fat (known as schmaltz) made an excellent frying oil – but this posed another problem: the Jewish dietary laws of kashrut forbade the mixing of meat and dairy[3]. A cheese-based fritter could not be fried in animal fat. Rye, buckwheat, and other grain-based pancakes became more common[3], and when potatoes came on the scene in the 18th century, they quickly became a staple in Ashkenazi cuisine[3].

Back to our roots

These days, potato latkes are by far the most common form of this tasty treat. But how did the potato (figure 4), with its origins in South America, come to be so ubiquitous in cuisines across the world?

Indigenous peoples in the Andes began cultivating *solanum tuberosum* sometime between 8000 and 5000 BCE[4,5]. Archeological evidence of potatoes used as food have been discovered in the bogs of southern Chile dating back 12500 years[6]. A hardy plant suited well to the high-altitude, cold climate of the Andes and more arid Western coast, the potato was able to thrive in these extreme environments on the mere 3% of arable land[4] in the Andean highlands.

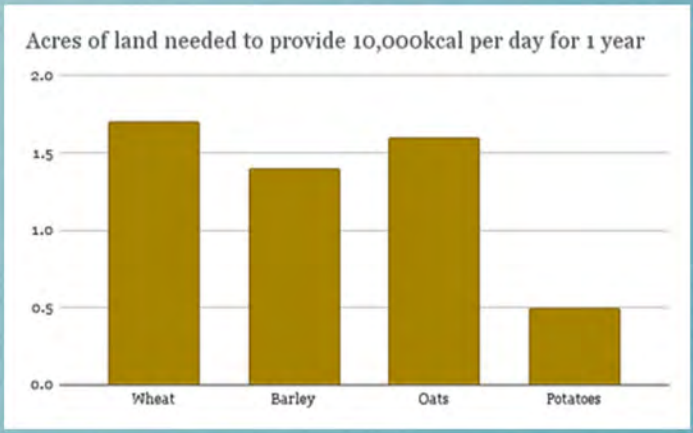
Domestication of the potato happened slowly over time. Early versions of the plant had high levels of glycoalkaloids, bitter-tasting compounds that help protect the plant against pathogens and herbivory[4]. Most of these were selectively bred out, but some more toxic varieties were also accommodated by eating small amounts of clay along with the tuber to neutralize the harmful toxins, a practice that persists in the region to this day[4].

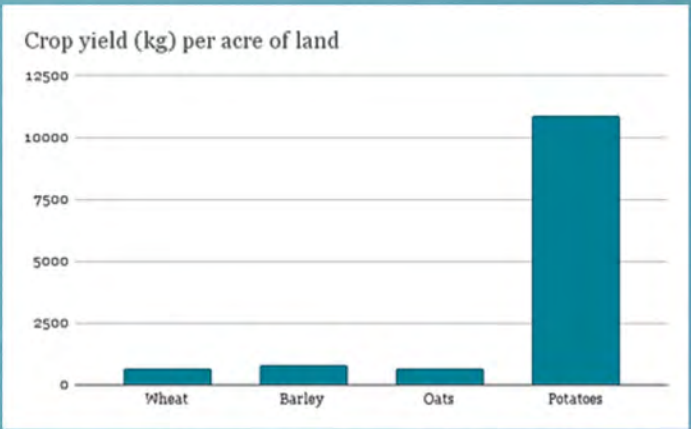
Potatoes were brought to Europe by the Spanish in the 16th century, and were originally met with skepticism. They looked similar to other plants in the nightshade family, causing many to believe they were toxic[4,5]. Their lumpy appearance even led to a rumour that they could cause leprosy[4]. For generations, the potato was solely an ornamental garden plant, with white and pink blossoms decorating the botanical gardens of Catherine the Great and adorning the hair of Marie Antoinette[4].

There are a number of theories about how potatoes first became popular as a food in the so-called Old World. In the case of Eastern Europe, it is likely that they were popularized due to grain crop failures in the early 19th century[3,4,5]. Even during cold fronts and fallow periods, potatoes are a hardy and resilient crop, often growing in places where little else will[4,5].

Figure 4: Russet potatoes, superior for making latkes due to their starchiness.

Potatoes are rich in vitamins, minerals, and carbohydrates needed to ensure human survival[4,7], and potato crops also yield more nutrients per square acre than wheat, maize, rice, or any other staple crop[4,7]. A family could grow enough potatoes to sustain themselves on a very small plot of land[7]. This would have been useful for Jews living in the shtetls of Eastern Europe, where antisemitic laws limited the amount of land a Jewish family could own[8].





Figures 5 and 6: data adapted from Nunn & Qian (2011) based on figures from late 19th century England

Layers of history

It is not clear when onions (figure 7) first became incorporated into latke recipes, but we know that they were already commonplace throughout Europe by the time potatoes were popularized in the region[9]. Like potatoes, onions are hardy plants that can thrive in difficult conditions, have high yields, and store well over the winter[9].

Figure 7: an onion

The first known record of onion cultivation comes from one of the world's oldest collections of recipes: the Yale Babylonian Tablets from circa 1600 BCE[9]. The tablets describe ancient Mesopotamian dishes, many of which contain onions and their cousins, leeks and garlic[9]. In fact, onions are one of the earliest non-grain plants to be domesticated on the Eurasian landmass[9,10], but their wild allium relatives were likely enjoyed for their pungent flavour long before they were selectively bred for the juicy, layered bulbs we enjoy today[9,10].

Well-loved by any civilization that encountered them[9], onions are even mentioned in the Hebrew Bible[11]: the Israelites, starving in the desert after their liberation from Egypt, lament at the delicious flavours they left behind.

Onions came to Europe via the Roman Empire, later acquired by the Germanic tribes that conquered Rome[9]. By the time Ashkenazi Jews in the shtetls of Eastern Europe were looking for something new and tasty to fry up for Hanukkah, onions would have been as ubiquitous there as potatoes[9].

> (4) The riffraff in their midst felt a gluttonous craving; and then the Israelites wept and said, "If only we had meat to eat! (5) We remember the fish that we used to eat free in Egypt, the cucumbers, the melons, the leeks, the onions, and the garlic." - Bamidbar 11:4-5

The latke goes west

Waves of pogroms throughout Europe in the 19th and early 20th centuries caused scores of Jews to immigrate to the United States[12]. As their ancestors had throughout history, they brought their culinary traditions with them, ready to adapt them to their new home. Various recipes for Jewish potato pancakes were published in American cookbooks as early as 1899[2,3,12].

While potato latkes were well-integrated into Jewish cuisine by the early 20th century, Ashkenazi immigrants found themselves brushing up against an increasingly industrialized United States food system[12].

In the small towns, or shtetls, of the Pale of Settlement - the circumscribed zone within the Russian Empire that limited where Jews could live and restricted many facets of Jewish life[8,12] - the community structure meant that people knew exactly where their meat and dairy was coming from. One could visit their local butcher and trust that the meat they were acquiring would be aligned with stringent standards for kosher meat[12]. Moving to American urban centres at this time meant that Jewish communities did not have as much oversight into food production as they had before. One way they responded to this was by establishing a system for kosher certification[12].

Before this time, if there was ever any question about the kosher status of a food item, they could go to the community's rabbi, who could make a more definitive ruling. A certification system meant that a family didn't have to know their local butcher personally to trust that their meat was kosher - they could instead buy pre-packaged meat with a heksher (a seal signifying the kosher status of an item)[12].

But what does this have to do with latkes?

Oil the right stuff

Procter & Gamble, preparing to launch their new form of hydrogenated cottonseed oil as a cooking oil replacement for lard and butter, noted the trend of Jewish consumers concerned with systemizing kashrut in parallel with similar trends in the secular community oriented towards "clean eating"[12]. In 1911, they signed an agreement with rabbis in New York and Cincinnati to vouch that their new product, Crisco, was fully kosher by virtue of containing no animal products[12]. By the next year, Crisco ads were appearing in Yiddish-language newspapers[12]. In 1933, P&G released a cookbook, *Crisco Recipes for the Jewish Housewife*[12]. While Crisco isn't necessarily the most common fat for cooking latkes anymore, these efforts by P&G secured the place of Crisco as a contributor to a long line of Jewish culinary tradition.

DILL PICKLE LATKES

My secret to extra flavourful latkes that'll have your family fressing? Another icon of Ashkenazi fare: dill pickles.

3 large Russet potatoes (figure 3)
1 medium onion
4-6 large kosher dill pickles
1-2 eggs
¼ cup or so of flour or matzo meal
A pinch of salt

For frying: high-smoke-point oil or fat, e.g. grapeseed, peanut, or avocado oil, Crisco, schmaltz, or beef tallow. (You could also use lard and I'm sure it'd be delicious, but my ancestors won't be happy about it).

Grate the onions, peeled potatoes, and pickles into a large bowl lined with cheesecloth. Use the cheesecloth to squeeze as much excess moisture as you can out of the shredded mix. You can also set the bundle on a plate with something heavy on top to drain more slowly.

Return the shredded veggies to the mixing bowl. Add one of the eggs, and flour or matzo meal a little at a time, keeping an eye on the moisture level and consistency. You can keep playing with the moisture by adding more flour and/or the second egg, until your batter reaches a consistency where it can be flattened into fritters without falling apart when they hit the hot oil.

Heat a generous amount of oil in a heavy skillet. When the oil is hot, fry until the latkes are golden brown, flipping halfway through (figure 8). Transfer to a paper towel to absorb excess oil. Serve with apple sauce and/or sour cream (my ruling on the age-old debate: when it comes to latke toppings, it's okay to be a spineless centrist).

Today, while potato latkes are still undoubtedly the most popular, countless variations exist. Some cooks add embellishments to the standard potato and onion by adding other ingredients, like dill pickles (my personal contribution to our collective culinary tradition) or carrots. I once had latkes made with extra onions and some curry powder, served with mint chutney as a riff on onion bhaji - incredible. Others will forego the potatoes entirely, opting instead for sweet potato, zucchini, or beets for a pop of bright colour.

Jewish culinary traditions are as diverse as the communities they come from. As a culture in diaspora, Jews have had to adapt our foodways to the many places we have called home throughout history, picking up new tastes along the way. Often at the margins of society, Jewish survival has relied on creativity, resourcefulness, and the ability to make something out of nothing. Drawing from a deep well of religious tradition, generations of Jewish cooks have balanced the competing needs of conserving our customs and embracing new ingredients and flavours to create memorable dishes like latkes, connecting us to our heritage in the most delicious ways possible.

Figure 7: latkes sizzling in oil.

Glossary of Yiddish terms (in order of appearance)

Latke	likely from the Ukrainian *oladka*, a little pancake, and/or the Greek *oladia*, a little oily snack[3]. Fritters fried in oil, often made of potatoes and eaten to celebrate the Jewish holiday of Hanukkah.
Dreidel	a type of spinning top used to play games during the Hanukkah season[1].
Menorah	a traditional seven-branched candelabra, with a special variation for Hanukkah consisting of nine branches (also called a hanukkiah)[1].
Nosh	snack (can be a verb or a noun)[13]
Schmaltz	rendered goose or chicken fat[2,3]. Also a figure of speech - if something is "schmaltzy", it's excessively sentimental - what we'd call "cheesy" in English[13].
Kashrut	the system of Jewish law concerning food and drink[1,3]. Includes prohibitions on mixing meat and dairy, specifications about which animals (and cuts of animals) are for eating and which are to be avoided[1,3].
Ashkenazi	an ancestral subgroup among the Jewish people[1]. With ancient origins in the Levant, Ashkenazim (the plural form) trace their roots to Germany and France in the Middle Ages, eventually spreading to Eastern Europe, and later, North America[12].
Shtetl	a Jewish village in the Pale of Settlement[8].
Pogroms	organized riots, sometimes state-sanctioned, with the aim of massacring Jewish communities[13].
Kosher	the same as kashrut, but used as an adjective[1,3].
Heksher	a seal or symbol on food packaging used to indicate kosher status[12,13].
Fressing	devouring food enthusiastically[13].
Matzo	a traditional unleavened bread product with biblical roots, primarily associated with the holiday of Passover but also ground into a meal/coarse flour that is used year-round[1,2,3].

References

1. Diamant, A. (2007). *Living a Jewish life: Jewish traditions, customs, and values for today's families* (2nd ed.). HarperCollins.
2. Stein, L. & Isaacs, R.H. (2017). *Let's eat: Jewish food and faith.* Globe Pequot Press.
3. Marks, G. (2010). Latkes. In G. Marks, *Encyclopedia of Jewish food.* Houghton Mifflin Harcourt.
4. Reader, J. (2009). *Potato: A history of the propitious esculent.* Yale University Press.
5. Earle, R. (2020). *Feeding the people: The politics of the potato.* Cambridge University Press. https://doi.org/10.1017/9781108688451.003
6. Ugent, D., Dillehay, T., & Ramirez, C. (1987). Potato remains from a late Pleistocene settlement in southcentral Chile. *Economic Botany, 31*(1), 17-27. https://www.jstor.org/stable/4254928
7. Nunn, N. & Qian, N. (2011). The potato's contribution to population and urbanization: Evidence from a historical experiment. The Quarterly *Journal of Economics, 126*(2), 593-650. https://www.jstor.org/stable/23015685
8. Kassow, S. (2008.) Shtetl. In Hundert, G.D. (Ed.), *The YIVO encyclopedia of Jews in eastern Europe*. YIVO Institute for Jewish Research & Yale University Press. https://encyclopedia.yivo.org/article/27
9. Jay, M. (2016). *Onions and garlic: A global history.* Reaktion Books.
10. Elattar, M.M., Darwish, R.S., Hammoda, H.M., & Dawood, H.M. (2024). An ethnopharmacological, phytochemical, and pharmacological overview of onion (Allium cepa L.). *Journal of Ethnopharmacology, 324*. https://doi.org/10.1016/j.jep.2024.117779
11. *The Tanakh.* (2014). Sefaria. https://www.sefaria.org/sheets/88025.4?lang=bi&with=all&lang2=bi
12. Gross, R.B. (2010). Jews, schmaltz, and Crisco in the age of industrial food. In A. Gross, J. Myers, & J.D. Rosenblum (Eds.), *Feasting and fasting: The history and ethics of Jewish food.* (pp. 189-211). NYU Press. https://doi-org.ezproxy.library.uvic.ca/10.18574/nyu/9781479899333.003.0011
13. Schaechter-Viswanath, G. & Glasser, P. (Eds). (2021). *Comprehensive English-Yiddish Dictionary* [online version]. https://englishyiddishdictionary.com/index.html

LEBKUCHEN

figure 1

HISTORY

Lebkuchen has been a staple at Oma and Opa's house since before I was born. This hearty gingerbread cookie evokes the Christmas spirit with warm spices and a heftiness that will get you through the cold months. Lebkuchen means gingerbread in German, which describes exactly what this cookie is: a variation on gingerbread. Lebkuchen slowly made its way into German culture, starting in 1296 when, in the City of Ulm, Franconian monks began using the forest's gifts such as nuts and honey from the apiaries[6]. These ingredients created a marvelous treat, but it would stick to the oven. As a result, monks started using communion wafers on the bottom of the mixture to prevent sticking[6].

The tradition of Lebkuchen, as it is known today, dates back to 1395 in Nürnberg, Germany, now known as the gingerbread capital of the world, where there are strict regulations about the quality of the ingredients and who can sell these cookies[12]. It is estimated that Nurnberg sells 70 million cookies each year.

This recipe of Lebkuchen is more flour-heavy than nut-heavy, and I spent many Christmases running to the garage or down to the basement workshop to find my Opa so he could mix the cauldron of dough that would feed the family on cookies for the whole year.

LEBKUCHEN VARIETIES

Since its inception, Lebkuchen has varied slightly. Initially starting as a cookie that was full of nuts, flour is becoming more common in its place, especially for home baking and to make more classic “gingerbread” varieties.

Oblaten Lebkuchen

This variety has an Oblaten wafer (a fragile thin wheat wafer) on the bottom; This is an evolution from the communion wafer that was placed on the bottom of the cookies to prevent sticking, as practiced by Franconian monks[6].

Nürnberger Lebkuchen

What is considered to be the original Lebkuchen, this variety has little flour (less than 105) and a high nut content (minimum 35%)[10].

Braune Lebkuchen

These lebkuchen have a higher flour content than the classic Nurnberger lebkuchen[10], making them a more affordable baking option for the at-home baker.

FLOURS PRECURSOR:

WHEAT

This particular Lebkuchen recipe would not exist without vast amounts of flour, specifically wheat flour. Wheat was originally domesticated around 10,000 B.C. in the Fertile Crescent, an area in the Middle East, the earliest cultivated species being glumed wheats[3] Archaeological records show that the discovery of grain likely began in Iraq and surrounding regions, then moved to Egypt, and then Europe, with species being found from 3000BC throughout Europe[17].

N

W

figure 2

E

S

According to archaeologists, flour from wheat likely originated in 7500 B.C., where circular stones and pebbles were found that were likely used to mill grains[17].

FLOURS PRECURSOR:

WHEAT

Wheat was one of the first domesticated foods, with many species and many adaptations to modern day. There are more than 25,000 varieties of Triticum aestivum L., which have been adapted to different climates[3]. Wheat is classified according to when it is sown: either in the Winter or Spring. Winter wheat makes up about 80% of global wheat consumption[3]. Common wheat makes up about 95% of our wheat consumption. Over centuries wheat has been shaped by both humans and natural driven selection, leading to the varieties we have today. Artificial selection is the most common method of cultivating and breeding wheat. Today, our common varieties have been selected through breeding programs that have led to our grains being selected for higher yields, efficient use of nutrients, and resistance to biotic and abiotic stress[3].

This selection is done by phenotyping and/or genotyping using techniques such as sequencing or molecular markers[3] to ensure quality and traits useful for the modern world. By focusing on so few varieties of wheat, this has unfortunately led to its vulnerability to environmental stresses, pests, and diseases[3]. When the world's population grew in the 1960s and demand for cereals was high, grains were treated with high levels of chemical fertilizers and pesticides to maximize productivity[3]. Monocultures are vulnerable to pests and disease, as they lack genetic diversity. To curb these negative impacts, old varieties of wheat that have not been changed through breeding, such as einkorn, emmer, and spelt, can help[3]. Flour has also undergone artificial changes, as modern millers have added gluten powder to improve its properties and give it more desirable traits for use in baking[7] .

GIVE ME SOME SUGAR (BEETS)

The original sweetener of Lebkuchen was likely honey from local apiaries[5] . Sugar from sugarcane eventually became more common as trade brought the product into the region in Medieval Europe[8]. Today, sugar beets are an incredibly important part of Germany's sugar consumption with the annual consumption in Germany being 2.9 million tons[1].

Sugar beets likely came from coastal areas in Europe, dating back to 8500 BC, with the leaves being the first edible part of the plant[13]. It wasn't until 1747 that German chemist Andreas Marggraf found that the crystals from pulverized sugar beets were identical to sugar-cane crystals[13] . This is when the first artificial selection of sugar beets began. After Maggraf, a man named Achard developed a process for extracting sugar from sugar beets and started a factory, where he chose sugar beet cultivars that had the highest sugar content[13] .

Sugar beets have been selected for sweetness since it was first discovered that they could be made into the sugar that we know today. The sucrose content of sugar beets in the first factory was likely around 6%; today, sugar beets have a sucrose level of 15-20%[13]). This is due to artificial selection, where the crops with the highest sugar are selected and bred. In the 20th century, the sugar beet agricultural industry grew significantly. Sugar beet varieties have been bred to have genetic resistance to certain diseases such as curly top virus and rhizomania, both of which reduce sugar content and can lead to the deformation of beet plants[11,14]. By making sugar beets genetically resistant to these diseases, it has increased the sugar yield over time and reduced the use of pesticides[15] .

figure 3

SCIENCE OF NOSTALGIA

The two main spices used in this Lebkuchen recipe are cinnamon and cloves. Spices such as these have compounds called alkenylbenzenes, which have relatively high boiling points. This makes their aromas especially pleasing as cooking releases their scent, while maintaining their composition[6] . Research on allylbenzenes and propenylbenzenes has explored why humans find them so pleasant and why they are strongly associated with the holidays. Allylbenzenes and propenylbenzenes have distinctive scents and are found in the essential oils of many spices, allowing humans to identify the scent[6] .

The recognizability of these scents is what might make them so special to us. Clove contains alkenylbenzenes such as eugenol, which have been shown in animal studies to have mild stimulating or aphrodisiac effects[6] which may lead to increased feelings of positivity and warmth. These spices are iconic and heavily associated with the holiday, evoking the joy and warmth of that time of year whenever their aromas fill the air.

BIO-GEO-PHYSICAL ORIGINS

How did Lebkuchen become one of Germany's most iconic holiday cookies? Well, it is all thanks to the monks in Ulm, in 1296, who created this honey, nut, spiced treat[5] . While Ulm was important to establish this tradition, Nuremberg was significant in shaping the Lebkuchen we know today. Nuremberg was located at the junction of the north south and east-west trading routes which allowed it to have more frequent exposure to spices[6]. Without Germany's temperate climate, proximity to Mediterranean countries, and large trade routes, Lebkuchen may not be as popular as it is today. Wheat grows well in temperate climates[3] . Germany grows large amounts of wheat and exports it around the world. An amount is kept aside for domestic use, as well as some additional imported wheat[16]. The large quantities of wheat that Germany is able to produce lead to large quantities of flour, meaning flour-based cooking has become a staple in this region and has led to certain recipes (such as this one) having more flour than some other variations, such as the Nuremberg.

figure 4

BIO-GEO-PHYSICAL ORIGINS

This recipe uses hazelnuts to add texture and flavour. Hazelnuts have grown in Germany for many millennia, likely dating back to the Mesolithic period (10,000–6,000 years ago), when Mesolithic tribes may have intentionally or unintentionally spread the hazel tree[2]. Since then, the hazel tree has been domesticated and cultivated[2], with Germany being the 17th-largest hazelnut exporter in the world[4]. Since hazelnuts had already been established in Germany by the time of the first records of Lebkuchen, and they are still grown domestically, it helped make these cookies so successful.

figure 5

The spices of Lebkuchen are also essential to the flavour of this cookie; without classic spices such as cinnamon and clove, the cookie would be nothing like the ginger-bread cookie of today. The Silk Road was the first major route to get spices such as cloves and cinnamon from Asia and the Middle East to Europe[9]. The main port of entry in the 11th-15th century was Venice, which then acted as the hub for the distribution through northern Europe[9] . In the 1400's the rise of the Ottoman Empire meant that Italy's trade through Constantinople, and on the Silk Road, became incredibly restrictive, and new routes had to be found to procure these spices[9]. These trade challenges lead to spices being seen as a symbol of wealth and a luxury. This rarity has shaped their role in being special for festive celebrations. Since the merchants of spices had to travel such long, and occasionally dangerous routes, these spices were regarded as a symbol of wealth. The wealthiest of families could afford large quantities of spices[9], while peasants might have them only for very special occasions. This likely helped shape Lebkuchen into being a festive holiday cookie, saved for occasions such as Christmas.

THE RECIPE

DOUGH INGREDIENTS

4 cups sugar
½ lb butter
4 eggs
4 tbsp baking powder
¼ lb chopped hazelnuts
¼ chopped orange peel
6 large tbsp Fry's cocoa
1 tbsp cinnamon
1 tsp ground cloves
¼ tsp lemon flavouring
10 cups flour
1 ½ cups water
Oblaten wafer (optional)

INSTRUCTIONS

1. Mix ingredients all together and let stand overnight
2. Roll dough out ⅓" thick
3. Choose a large water glass to use as a stencil and cut cookie shapes from dough
4. If adding an oblaten, add to the bottom before baking
5. Bake at 375 F for 11 minutes
6. While hot, spread icing on and then sprinkles or any desired topping

ICING INGREDIENTS

1 cup icing sugar
1-4 tbsp Water
¼ tsp Almond Flavouring

INSTRUCTIONS

Mix icing sugar with1/4 tsp of almond flavouring and add 1-4 tbsp of water until it reaches desired consistency (smooth and spreadable but not runny)

THE FAMILIES MOST CHERISHED BAKER

v00096875

Christmas Eve at Oma and Opa's house was always filled with at least 5 varieties of sweets, and a dinner of sauerkraut, meats, and bread. I have learned so much about baking from my Oma, and living provinces away makes me so antsy to be back for Christmas to be in her warm house sitting by the woodstove. My Oma turned 90 this year, and my Opa will be 93, they still live in their own house and have an amazing garden every summer, and the baking is just as vast and good as it ever was. I cherish the cookbook my Oma made me and I want thank her and my Opa for filling my life with love and cookies.

REFERENCES

1. BioZ - Biobasierte Innovationen aus Zeitz und Mitteldeutschland. (2025, June 18). *Zucker-Produktion – BioZ*. BioZ. https://www.bio-z.de/stoffstrom/zuckerproduktion/
2. Boccacci, P., & Botta, R. (2009). Investigating the origin of hazelnut (Corylus avellana L.) cultivars using chloroplast microsatellites. *Genetic Resources and Crop Evolution*, *56*(6), 851–859. https://doi.org/10.1007/s10722-009-9406-6
3. De Sousa, T., Ribeiro, M., Sabença, C., & Igrejas, G. (2021). The 10,000-Year success story of Wheat! *Foods*, *10*(9), 2124. https://doi.org/10.3390/foods10092124
4. *Hazelnuts/Filberts with Shell in Germany Trade | The Observatory of Economic Complexity*. (n.d.). The Observatory of Economic Complexity. https://oec.world/en/profile/bilateral-product/hazelnutsfilberts-with-shell/reporter/deu
5. Hubbell, D. (2022, December 23). *German Lebkuchen*. Atlas Obscura. https://www.atlasobscura.com/articles/best-gingerbread-recipe
6. Idle, J. R. (2005). Christmas Gingerbread (Lebkuchen) and Christmas Cheer – Review of the Potential Role of Mood Elevating Amphetamine-like Compounds Formed in vivo and in furno. In Charles University in Prague – The Karolinum Press, *Prague Medical Report* (Vols. 106–106, pp. 27–38). https://gynpo.lf1.cuni.cz/Data/files/PragueMedicalReport/PMR%2005-01%20Idle.pdf
7. Igrejas, G., & Branlard, G. (2020). The Importance of Wheat. In *Wheat Quality For Improving Processing And Human Health* (pp. 1–7). https://doi.org/10.1007/978-3-030-34163-3_1
8. Kernan, S. (2021, March 18). *Sugar and power in the early modern world*. https://dcc.newberry.org/?p=16944
9. Kernan, S. P. (2017, March 28). *The medieval spice trade*. https://dcc.newberry.org/?p=14381
10. Leckerlee. (n.d.). Lebkuchen 101 – History, Types & buying guide. https://leckerlee.com/pages/lebkuchen-101?srsltid=AfmBOoo7wlfaHZA_xpYRCWNdjK98bQeS-qJtCEUZmKYYCgPqw1PgUDRM\
11. Mcgrann, G. R. D., Grimmer, M. K., Mutasa-göttgens, E. S., & Stevens, M. (2009). Progress towards the understanding and control of sugar beet rhizomania disease. Molecular Plant Pathology, 10(1), 129–141. https://doi.org/10.1111/j.1364-3703.2008.00514.x
12. Metych, M. (2024, December 23). Gingerbread. Britannica. https://www.britannica.com/topic/gingerbread-cake
13. Pathak, A. D., Srivastava, S., Misra, V., Mall, A. K., & Srivastava, S. (2022). Evolution and History of Sugar Beet in the World: An Overview. In Sugar Beet Cultivation, Management and Processing (pp. 3–10). https://doi.org/10.1007/978-981-19-2730-0_1
14. Renukadevi, P., Sangeetha, B., Malathi, V., Nakkeeran, S., & Satya, V. (2022). Enigmatic emergence of seed transmission of geminiviruses. In Elsevier eBooks (pp. 285–306). https://doi.org/10.1016/b978-0-323-90587-9.00003-1
15. Stevanato, P., Chiodi, C., Broccanello, C., Concheri, G., Biancardi, E., Pavli, O., & Skaracis, G. (2019). Sustainability of the sugar beet crop. Sugar Tech, 21(5), 703–716. https://doi.org/10.1007/s12355-019-00734-9
16. The Observatory of Economic Complexity. (n.d.). The Observatory of Economic Complexity. https://oec.world/en/profile/bilateral-product/wheat/reporter/deu
17. Yen, C., Yang, J., Yuan, Z., Ning, S., & Liu, D. (2020). Geographic and Historical Origin of Wheat. In Biosystematics of Triticeae (pp. 173–180). https://doi.org/10.1007/978-981-13-9931-2_10

PHOTO REFERENCES

Figure 1
https://delishglobe.com/recipe/german-lebkuchen-gingerbread/

Figure 2
https://kids.britannica.com/kids/article/Fertile-Crescent/346114

Figure 3
https://migardener.com/en-ca/products/sugar-beet?srsltid=AfmBOopkVCXVqh4AEF_FvJdRNUPCNd2BT6Am1tNZe9ADaqdpZzYCrxUG

Figure 4
https://www.saveur.com/article/Travels/Guide-Munich-Nuremburg/

Figure 5
https://ayoubs.ca/blogs/news/everything-you-need-to-know-about-hazelnuts?srsltid=AfmBOopr9tS_AFrMNdzThwMT4i1SjEVC6d5tP6TxShndFp0sCrjqOfmu

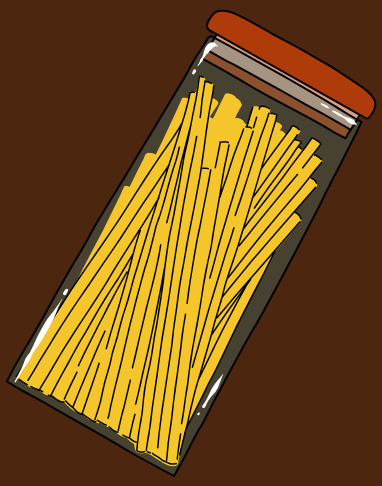
LINGUINE SCAMPI

Figure 1

Linguine scampi, despite its simplicity, is much more than just a globally adored seafood pasta. Beneath the surface Linguine scampi is a gastronomic artifact of the Mediterranean, with deep ecological and cultural connections developed over centuries of food innovation in one of the culinarily richest and most expressive regions in the world, Italy. Although this is a simple dish to make, consisting of long tender strands of flour-based linguini paired with savory scampi, cooked in white wine, garlic, and olive oil. Despite this dishes short history, originating in the 20th century, its two main ingredients that we will be discussing have a long and significant history tied to the Italian coast line. In this article we will be exploring the history of this dish, with a focus on its two main ingredients, linguine, and scampi. Through tracking these ingredients geographic roots and cultural evolution we will discover what made them staples of the Mediterranean diet. We will be examining Italy's coastal regions, specifically the areas of Liguria and the west coast of Italy, and the role they played in the development of seafood pasta. Additionally, we will look at how this dish has transformed and taken on different interpretations as it reached its global adoration, alongside a personal recipe. By the end of this article, we will have explored the history and cultural significance of Linguine scampi and will have gained insight into why it has gained its global relevance.

Linguine: A Coastal Heritage from the Ligurian Shores

Linguine, whose name directly translates to "little tongues," is derived from the word Lingua, meaning "tongue," and the suffix -ine, meaning "small" (Online Etymology Dictionary 2025). This name perfectly fits this distinctive pasta's unique shape. Slender, flat, and long, resembling many of the other pastas featured in the spaghetti family (Alexander 2000, pp. 560). Although less popular than its sibling 'the spaghetti,' Linguine is part of a niche culinary tradition linked to the cultural cuisine of its Mediterranean origins.



Linguine's first documented appearance in literature originates in the 18th century from a book written by the author Giacchero Giulio. Giacchero was a historian who compiled the domestic life of Genoa. According to this account, Linguine originated in the city of Genoa, a marine port city on the coast of the Liguria region in Northwest Italy. This handmade pasta was a festive ingredient reserved for special occasion and was served in a large variety of dishes. Most often accompanied by the limited agricultural products of the region, such as pesto, beans, and potatoes (Pastini 2025; Delallo 2025).

The region of Liguria played a crucial role in the development of Linguine. Genoa lies at the center of shaping both this pastas form and function. As a major port city in Italy, Genoa has a long history of trade and cultural exchange. This environment created an atmosphere of innovation which affected all aspects of life, including its cuisine. Liguria's restricted geography of steep coastal mountains and limited agricultural potential resulted in resourceful yet restricted culinary traditions. With a focus on pasta, olive oil, cheese and herbs, Genoa became a hub of pasta and pesto dishes. It is for this reason that it can be speculated that Linguine's tongue shape originates, an adaptation based around suiting itself to Liguria's culture of sauces and herbaceous mixtures (Walker 2025).

Scampi: Italy's Decapod Delight of the Sea

Scampi are small crustacean's native to the North Atlantic that share a history as a notable ingredient in many dishes along the Italian coast (Walter, 2025) (Caldwell, 2025). Also known as "langoustines," these small prawns are often confused with shrimp due to the evolution of this dish in the Americas due to Italian immigration. (Walter, 2025) (Caldwell, 2025). However, Scampi is more closely related to lobsters and resemble slender orange/pink crustacean's that look similar to prawns. Scampi is believed to have gained popularity in Italy during the 16th century, specifically in the regions of Italy bordering the Adriatic and Tyrrhenian seas. (Walter, 2025) (Caldwell, 2025). During this period Scampi were notably abundant within the Mediterranean Sea and were harvested and prepared alongside other notable Italian

ingredients such as olive oil, white wine, and garlic (Walter 2025).

However, other evidence shows that Scampi may have originated even earlier outside the Mediterranean. British, Scottish, and Irish coastal towns may have been using Scampi in dishes as early as the 15th century (Walter, 2025). In these countries, scampi would have been prepared alongside butter, potatoes, assorted vegetables, or different sauces (Walter, 2025). It is also argued that the British shared their knowledge of scampi with the French, who in turn taught it to the Italians (Walter 2025). However, despite this confusing timeline over which region they originated in first, it appears scampi began to be harvested from the Atlantic Ocean and adjacent seas sometime in the 15th to 16th century, but possibly only grew popular in Italy during the 16th (Walter, 2025)

Evolution of Ingredients

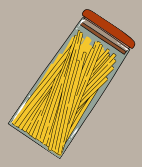
Over time, the ingredients featured in this dish have changed significantly throughout their history in human cuisine. In this section, we will quickly look into the agricultural evolution of these ingredients via artificial and natural selection.

Linguine:

As stated before, Linguine production began in the Italian region of Liguria in the 18th century (Pastini 2025; Delallo 2025). Made from durum wheat flour, this pasta would have been harvested from fields of wheat along the coasts limited agricultural space (Pastini 2025; Delallo 2025). The wheat grains were milled into flour and later shaped and cooked as Linguine in homes and restaurants throughout Italy (Pastini 2025; Delallo 2025). However, the origins of the wheat used to make pasta flour begins much further back in time.

Ingredients for 4 Servings

- 12 oz Linguine



- 24 Fresh Scampi

- 2 Garlic Cloves

- 1 White Onion

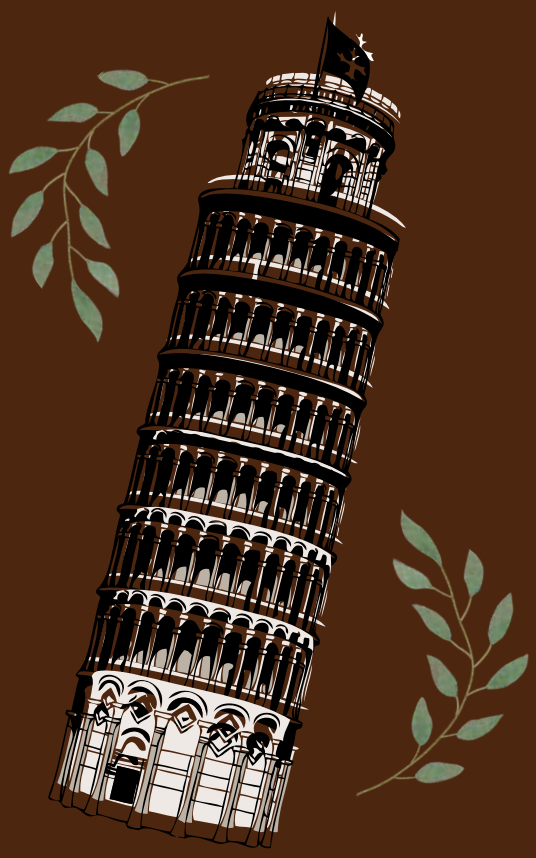
- ⅔ Cup White Wine

- Extra Virgin Olive oil quantity as per preference

Optional Ingredients for extra taste: Cherry Tomatoes, Parsley, Chilli Pepper Flakes, and Salt

Wheat has been harvested for thousands of years prior to its domestication, possibly as far back as 21,000 years ago (Piperno, Dolores R. Weiss, Ehud, Holst, Irene, Nadel, Dani 2004). During early farming periods around 10,000 years ago, wheat began to be domestically planted. This process saw farmers selectively choosing the most effective seeds for food production. Through this, domesticated wheat evolved into a more productive form, significantly reducing the number of species to just three main domesticated wheat genomes including: Diploid wheats, tetraploid wheats, and Hexaploid wheats (Winfield 2012).

Later wheat production followed a similar evolution of selective breeding unique to each distinct agricultural region. In the 19th century, the British further pushed for the centralization of wheat production throughout its colonies, turning wheat into a global agricultural staple. (Winfield 2012). Modern agricultural practices specifically those born through the Green Revolution would again evolve the development of wheat globally. With new machines automating the process, plus the creation of advanced irrigation and fertilization systems, wheat has become a globally harvested resource and a significant component in most diets across the world (Winfield 2012)



Scampi:

Throughout most of its culinary history, scampi was simply harvested from wild fisheries throughout the Atlantic and adjacent seas. Methods of obtaining these animals was no different than most wild fishing and included using nets or traps to gather scampi from their natural habitats (Martinez 2025). However, due to overfishing and habitat damage, ecological concerns have grown over the sustainability of wild scampi harvesting over the past few decades (Martinez 2025). Due to this, efforts have been made to create artificial fisheries for scampi. Countries such as Thailand and Norway have seen great success in scampi farming as the practice allows scampi to be harvested year-round, in larger abundance, and in a much more competitive market (Martinez 2025). However, it still comes with its downsides. Scampi farming, just like most agricultural practices has a negative effect on surrounding ecosystems. Its extractive from the land and its use of water and chemical salinations degrades its environment. Additionally, from a trophic perspective, scampi does not provide enough output to justify its inputs. It is possible to make a sustainable practice; however, it is incredibly expensive and due to market dominance, smaller competitors often don't see enough return to create sustainable productions. Furthermore, critics have stated that wild scampi tastes significantly better, further reducing the market for farmed scampi (Martinez 2025). However, the future seems bright for the practice as technology continues to advance. (See Martinez 2025 for more)

Recipe:

This recipe was taught to me by a family friend who was born in Italy and was raised on this dish. Comapred to most recipes found online, this version does differ slightly, however its variations are authentic to Italian heritage and demsotrates just how widely this dish has been adapted throughout italy and the wider world.

- To start, first fill a pot with water and begin heating it on the stove to a boil.
- While the water is boiling, take your whole white onion and two garlic cloves, chop them up, then add to a well oiled pan over high heat. Cook the garlic and onion until the onion is a nice golden brown. Stir occasionally to avoid burning or sticking. This step is also when you can add tomato if it is your prefrence.
- Once we've achieved the right colour, lower the heat to medium and add the white wine to the mix. Let that simmer while we prepare the scampi.
- Take the scampi and peel the shells leaving only the meat, but save the tails. Place the scampi into the pan, then cover and reduce to low heat for 5 mins. After 5 mins, stir and add the scampi tails into the pan before re-covering for another 5 mins.
- While the rest of the dish cooks, place the Linguine into the now boiled water and cook until al dente, or till its sofented fully and flexible (check with stirring spoon).
- Finally, add contents of the pan and the linguine into a bowl, mix well (add little bit of boiled water if needed for mixing), remove or keep scampi tails as per prefrence, and add any other additonal toppers as mentioned in the ingredients list. My personal prefrence includes chili flakes as the heat compliments the sauce exceptioanlly well.

Garlic:

According to archaeological evidence found in a cave in modern day Israel, humans have utilized the many properties of garlic since as early as 5000 BCE (Dhall et al., 2023, pg. 5). However, it is believed to have originated in the wild in Centra Asia, specifically in and surrounding multiple mountain ranges throughout the continent (Dhall et al., 2023, pg. 2). Ancient farming techniques were simple and included selective harvesting and planting of larger bulbs. This method increased production of garlic as over time only the best species for flowering and reproduction remained, however, it also reduced much of the diversity. However, garlics asexual reproduction mitigated some of this diversity loss through heavy mutations over the millenniums. (Dhall et al., 2023, pg. 2-3). Humans in the modern day have continued to select garlic with desirable traits. In farming practices, bulbs with more cloves and stronger flavor are the priority. Unfortunately, these selections have also reduced the fertility of the plants, leaving us with sterile cultivators exclusively sourced through cloning (Dhall et al., 2023, pg. 3-5).

White Onion

White onions are likely to have originated from places in central Asia, Specifically around the areas that we would call the Middle East (National Onion Association, 2025). Prior to cultivation, humans ate onions for thousands of years because they were commonly found in the wild and easy to store (National Onion Association, 2025). Due to their adaptability to different climates, onion agriculture spread worldwide and was selectively bred to better adapt to each region where it was growing. Tracking all these adaptations would be nearly impossible; however, the most common features selected for the white onion were size, colour, texture, flavour, high sugar content, and low sulphur content. (National Onion Association, 2025; Stewart R., 2025)

White Wine

Originally, all known grape variations exclusively produced dark skinned fruit. However, through a natural mutation around 3,500 years ago, the pigment of these fruits changed, producing white grapes, which were preserved through selective cultivation (Downing, A. et al.). Wine making has been a practice since some of the earliest civilizations. It followed a very similar process as modern day creation, starting with crushing grapes, separating juice from solids, then fermenting them with yeasts, however, this resulted in a much more natural wine that was often unfiltered and cloudy, the exact traits that we often avoid in wine in the modern era (WinesUncovered, 2025). Artificial evolutions of wine vary widely depending on the procedure, however, most production process start through selecting precise grapes based on their chemical compositions of sugars, aromas, and acidity. This is either done through manual selection or a mechanized process. Furthermore, fermentation practices have advanced in a way that relies on proper temperature-controlled storage, artificially cultured yeasts, and specific selected filtration to create the clean wines that are expected from producers (Evans, J., 2025).

Olive Oil

Olives have been harvested from as early as 6000 BCE in the Mediterranean. Since 3000 BCE the olive tree was cultivated marking the beginning of its culinary significance in many Mediterranean societies (Dillehay, M., 2025). Due to their popularity and ancient Mediterranean trade cultures, the olive spread around the ancient world, producing many new regional variations of the plant due to selective breeding and natural adaptation to climates and soils (Dillehay, M., 2025). The artificial evolution of Olive Oil mainly revolves around the process used to separate and flavour the oils. Centrifuges and Hydraulic presses replaced stones and mills, resulting in a cleaner, more predictable product, with quality reflecting the advancement of the technology. Furthermore, innovations in temperature controls and chemical preservatives enhance flavor compounds and nutritional quality of the completed product (Soares, T. F., et al, 2025, 3346-3347)

Linguine Scampi's Journey to the "New World": America's Linguine Shrimp Scampi

Linguine Shrimp Scampi is an Italian American dish synonymous with Italian culinary culture in America. This dish blends the Traditional elements of Linguine Scampi with American ingredients prefrences, mostly focused on the increased richness and regional availability (Kwok, J., 2023). Most Italian American cuisine is a fusion of techniques and traditions from the old Mediterranean and European world infused with ingredients from the new world (Kwok, J., 2023). Something that will be reflected as we explore the origins and variations of this dish.

As mentioned, the main influence on this dish is the increase of its richness, offering a creamier dairy sauce with significantly more garlic. Additionally, as in the name, the Americas had no access to the traditional scampi of the Mediterranean, so the protein of the dish has been replaced by shrimp, a very similar in taste shellfish that was significantly more available in the region (Kwok, J., 2023). The preparation of the protein is also quite different. The shrimp is commonly cooked separately, often grilled, with no infusion of the shell into the sauce (Kwok, J., 2023). It is also important to state that the portion size of the carb in this dish, the Linguine, is higher than the Italian counterpart, reflecting the American pasta tradition of a stronger focus on the noodles and sauce (Kwok, J., 2023). The specific recipe we are citing for this variation also highlights the inclusion of flavour enhancers, a mandatory inclusion rather than just a suggestion as in our traditional recipe. These enhancers include garlic powder on top of our garlic cloves, onion powder alongside our onion, paprika, and chili flakes (Kwok, J., 2023). Further boosting the sauce is the inclusion of butter, parmesan, and lemon for an extra kick (Kwok, J., 2023).

Overall, Linguine Shrimp Scampi is more than just a richer variation of our dish, it is an artifact from a time of mass immigration and innovation in the Americas, reflecting the desire to retain tradition while adapting to a new way of life. And although this new recipe might deviate a little further from the tradition than we'd expect, its popularity in restaurants and home cooking speaks to the ingenuity and success of this hybridized dish. Successfully honoring its origins while creating its own culinary tradition. (see (Kwok, J., 2023) for full recipe)

References:

- “Linguine.” Online Etymology Dictionary. Accessed October 28, 2025. https://www.etymonline.com/word/linguin
- Caldwell, E. (2025a, May 23). What region of italy is Scampi from? unraveling the mystery of the Italian Langoustine. TheFlavorExperts. https://theflavorexperts.com/what-region-of-italy-is-scampi/
- DeLallo. “Spotlight Series: All About Linguine.” DeLallo, accessed October 28, 2025. https://www.delallo.com/blog/what-is-linguine.
- Dillehay, M. (2025, August 4). The history of olive oil production: From ancient harvests to modern techniques. Tastefully Olive.
- Downing, A., Atwell, B., Marais, K., & Downing, K. (n.d.). Vitis vinifera: White grapes and seedless grapes [PDF]. Macquarie University.
- Evans, J. (2025, February 23). Modern fermentation methods: How technology is changing winemaking. Okanagan Wine Awards.
- Kwok, J. (2023, August 21). Shrimp scampi linguine. Kwokspots.
- Martinez, L. (2025, April 7). Is Scampi farmed? A deep dive into the world of Scampi Farming. HomeDiningKitchen. https://homediningkitchen.com/is-scampi-farmed/
- National Onion Association. (2025). Onion history
- Pastini. “A Little Linguini History.” Pastini. Accessed October 28, 2025. https://www.pastini.com/a-little-linguini-history/.
- Piperno, Dolores R.; Weiss, Ehud; Holst, Irene; Nadel, Dani (August 2004). "Processing of wild cereal grains in the Upper Palaeolithic revealed by starch grain analysis". Nature. 430 (7000): 670–673.
- Soares, T. F., Alves, R. C., & Oliveira, M. B. P. P. (2024). From olive oil production to by-products: Emergent technologies to extract bioactive compounds. Food Reviews International, 40(10), 3342–3369.
- Stewart, R. (2025, April 3). The humble white onion: A culinary guide to history, cooking, and nutrition. Kiltie Fish.
- Walker, Andrew. “Unraveling the Origins of Linguine: A Journey Through Italian Cuisine.” HomeAndKitchenBlog, May 2, 2025.
- Walter, F. (2025, March 20). The birthplace of Scampi: Unraveling the mystery of a beloved dish - flavorycooking. Flavory Cooking. https://flavorycooking.com/where-was-scampi-invented/
- WinesUncovered. (2025, May 20). The evolution of winemaking techniques: A journey through time.
- Winfield . (2012). Wheatbp new. The Evolution of Wheat. https://www.cerealsdb.uk.net/cerealgenomics/WheatBP/Documents/DOC_Evolution.php

- Figure 1: Marchi, V. (2023, March 25). Linguine agli scampi: A fantastic classic Italian dish. Cooking Italians

MLYNTSI NALYSNYKY

Food is foundational to Ukraine's culture, rooted in its history, traditions, and social identity. Ukrainian traditional cuisine has been tried and tested over centuries, and the incorporated knowledge was passed orally. Like most orally transmitted traditions, recipes were passed down through generations of familial ties. It wasn't until the nineteenth century that Ukrainian cuisine began to be physically documented. Ukraine is universally known for its iconic dishes, such as borscht (red beet soup), varenyky (pierogies) and holubtsi (cabbage rolls). However, there are many more dishes that have shaped Ukrainian cuisine. Although there are variations between regions and cultural communities, the typical Ukrainian meal consists of the same signature dishes. Along with borscht, varenyky and holubtsi, there's also mlyntsi nalysnyky (filled crepes) (Farley, 2014).

Mlyntsi Nalysnyky are very thin, round pan-sized pancakes that are rolled and stuffed with a sweet or savoury cheese filling (Tiazhka, 2022). The filling ingredients may differ by region, but my family traditionally made them savoury with dill and cottage cheese. This dish has been popular for generations, becoming a sacred dish for winter holidays such as Ukrainian Christmas (Farley, 2014).

COTTAGE CHEESE

Many dishes within Ukrainian cuisine use cottage cheese, or another variation of farmers cheese. Cottage cheese is a fresh, soft cheese with a soupy texture and a mildly sour flavour. It's made up of variously sized cheese curds, which are often mixed with whey or cream (Britannica, n.d.). The origin of cottage cheese is not well known, however, it's theorized to have been introduced to North America by European settlers in the 19th century. The term 'cottage cheese' originated during this time. This possibly references that the cheese was made in people's homes. Initially, cottage cheese was eaten to avoid wasting the remaining cheese curds and whey post-cheesemaking (Adane, 2025). In modern cottage cheese production, rennet is added during the process to induce the curdling of the skimmed milk (Covington, 2023). It's then drained, but not pressed, to leave the liquid texture of the modern cottage cheese (Britannica, n.d.). If drained and pressed, it becomes dry cottage cheese. Dry cottage cheese is what's commonly used for making mlyntsi nalysnyky and verenyky (As pictured)

In Ukraine, they traditionally used a cheese called Syr to fill nalysnyky. Syr is a soft cheese that is fermented from cow, sheep, or goat's milk. It is texturally curdy and mildly sweet in flavour and is widely used within Ukrainian cuisine. Syr also goes by the name of Tvorog in some regions; however, both terms generally reference what we now call farmer's cheese (Innichka, 2025).

Syr is very similar to cottage cheese; however, there are slight variations in the way in which they're produced. Unlike the North American cottage cheese, Syr does not use rennet to curdle the milk (Covington, 2023). Instead, the milk is naturally curdled usually by just letting it go sour (Baur, 2023). Although milk is now consumed fresh, it was once more common to consume naturally soured milk (Braĭchenko, et al., 2020). The sour milk was then cooked on very low heat until cheese curds formed. The substance was then drained using a cheesecloth, and what remained was Syr. A modern substitute for Syr is dry cottage cheese. This substitute has generated popularity in Canada, as the process for making traditional Syr is being forgotten through assimilation. Some Canadian-Ukrainian families were unaware of the traditional cheese that was once used in our cuisine. Our grandparents only used what was available to them: dry cottage cheese. However, many home cooks continue to make their own Syr, to continue the lineage of authentic Ukrainian cuisine (Baur, 2023).

OILS

To cook Nalysnyny, the thin batter is poured into a small pan and fried in oil. Using oil allows the batter to become crisp at the edges, making it easier to roll. As there are already so many dairy products incorporated into the manufacturing process, frying the crepes with oil introduces a new flavour to the dish. Although any vegetable oil could be used, sunflower seed oil is preferred in Ukrainian cuisine.

It's a common misconception that Ukrainian cuisine is mostly dominated by animal fats. In truth, there is a wide variety of vegetable-based oils that are familiar within Ukrainian cooking. Oils such as hemp, linseed, rapeseed and camelina were all commonly used amongst traditional cooked dishes. Today, sunflowers are the most popular for oil extraction (Braĭchenko, et al., 2020). Unrefined sunflower seed oil is widely considered a Ukrainian staple ingredient (Voloshin, 2025). Its golden colour and intense aroma are desired within baking and cooking (Braĭchenko, et al., 2020). However, the sunflower was only brought over to Europe from North America in the 16th century. First Nations have used this flower for generations and consider it a culturally significant plant. There's archeological evidence of sunflower production dating back to 3000 BC. Sunflowers were historically roasted, used for developing flour and oil extraction. Not only was sunflower oil used for cuisine, but also as sunscreen (Fesco, 2025).

Sunflower seed oil became more internationally known after Eastern European countries like Ukraine and Russia started producing abundant crops. Today, sunflowers are vital to Ukraine's agricultural exports. Ukraine produces almost six million metric tonnes of sunflower seed oil per year, of which the majority is exported globally (Kukurudza, 2023). Ukraine's temperate climate and rich, black soil provide ideal conditions for sunflower production. Its climate is also very similar to that of North America, making the introduction of the species effortless. Many Ukrainians who've immigrated to Canada have settled in the prairies, as they are most likely a reminder of home. As sunflowers are native to North America, sunflower seed oil continues to be a staple within the Ukrainian cuisine of immigrant families.

BIO-GEO-PHYSICAL INFLUENCES

Ukraine has a temperate climate and can experience cold winters. The terrain is generally made up of steppes and plateaus. Most of Ukraine's land is made up of black soil, which refers to soil that is particularly fertile and rich. These factors provide ideal conditions for cultivating crops and herding livestock. Many Ukrainian families cultivate home gardens that produce a variety of produce (My family's Ukrainian home, depicted in both images on this page)

The earliest known farmers were the Trypillians, dating back to 4500 – 2000 B.C. They were known for growing barley, millet, rye, and wheat. Due to the abundance of wheat production, trading agreements became established along Ukraine's Black Sea coast (Ukraine, n.d.). Using grain grinders with multiform incisions, Trypillians were able to process flour for bread and groats for porridge (Videiko, 2024). Ukraine's abundant grain production has had a great influence on the food culture, allowing flour-based dishes to become national staples (Braĭchenko, 2020).

As Ukraine's terrain allows for pristine livestock herding, dairy production is expected to be abundant. This may explain why dairy products, like cream or Syr, are popularly used within many of Ukraine's iconic dishes. However, due to the severity of the temperate winters, much of Ukraine's food production was only available seasonally. Therefore, much of Ukrainian culinary culture adopts techniques for preserving food long-term. Most notably, the production of fermented milk beverages and the use of fermented sheep and cow's milk for cheesemaking (Braĭchenko, 2020). Traditionally, dairy products were rarely consumed fresh and were often naturally soured or curdled (Baur, 2023). This technique ensured that the products could be safely stored for long periods. These products would be consumed on their own, used for cooking or as a side dish (Braĭchenko, 2020).

CULTURAL VARIATIONS

Mlyntsi Nalysnyny are generally described as Ukrainian crepes. Crepes can be seen across many different cultures, most notably, French crêpes. French crepes have been modernly popularized as a sweet dessert, usually served with whipped cream, jam or fruit. However, the idea of crepes was mentioned as early as 350BC, where the Greek poet Archestratus describes a fried dough soaked in honey. During the Roman Empire, as described by Cato the Elder, the dish evolved further into a layered flatbread-like preparation. At this point, the dish spread across Europe and situated itself amongst many different cultures (Grok, 1970). In Slavic countries during the 9th century, thin pancakes were cooked and referred to as mlyntsi. This name is rooted in the term mlyn, which means a mill, but it may also represent the village in which it originated. It's unclear when the name for Ukrainian crepes evolved into mlyntsi nalysnyky, but it's been traditionally recognized for generations (Leysa, 2025).

Ukraine is located in Eastern Europe and is currently the second-largest country on the European continent. Through time, Ukraine has fallen under the power of many countries, such as Poland, Austria, and Russia. As a result, the Ukrainian borders have been redrawn on multiple occasions. This has influenced Ukrainian cuisine greatly, as Ukrainians are exposed to other cultures. Many Eastern European countries have developed similar traditional dishes, as their interactions are abundant. However, each country, region and community experiences their own unique cultures, which is what inspires the variations.

Ukrainian cuisine is filled with diverse flavours, and mlyntsi nalysnyky is just one example of this food culture. Depending on the region in Ukraine, the recipes for culinary traditions differ. Essentially, this means that the variations of mlyntsi nalysnyky are endless. Cottage cheese is most recognized for the sweet filling variation of nalysnyky. However, the cottage cheese is often mixed with herbs, berries, or poppy seeds. There are also savoury variations, by filling the thin crepes with meat or vegetables (Leysa, 2025).

DID YOU KNOW?

There are also sweet variations of varenyky (perogies)! They are served as a desert dish. My family would fill them with a mixture of cottage cheese and blueberries. With the leftover blueberries, we'd develop a sweet syrup to pour over the dish (Pictured abover).

THE RECIPE

The making process is complex, involving frying the thin crepes, rolling, and filling them, then baking them with cream. Each bite reminds us of the love and care that goes into preparing this dish. The top of the outer crepe would be crisp from the oven, yet the centre would be bursting with warmed cottage cheese and dill. The taste will fill you with the familiar comfort of family and tradition. The following recipe is very similar to my family's recipe and was inspired by Leysa, of Matsuya's Kitchen (Leysa, 2025).

As cultures evolve and traditions are forgotten, it is important to revisit historical roots. Delving into the history of a region's food can uncover a multitude of cultural knowledge. Ukraine's history is rich and diverse, heavily influencing the region's cuisine. Mlyntsi nalysyny fully embodies Ukraine's culture and history. The core ingredients of the dish are all products of Ukraine's unique geography. The many different variations reflect the community and diversity of the country.

The Ingredients

The Crêpes

- *300g Flour*
- *350g Milk*
- *250g Water*
- *3 Eggs*
- *3 tbsp Sunflower seed oil*
- *½ tsp Salt*
- *1 tbsp Sugar*

The Filling

- *500g Dry cottage cheese*
- *1 egg*
- *1tsp Minced fresh dill*
- *¼ tsp Salt*
- *¼ tsp Ground black pepper*

Additional

- *2 tbsp heavy cream*

Instructions

1. In a large bowl, mix eggs, sugar and salt.
2. Stir in only 100g of flour and mix well, then whisk in 100g of milk
3. Slowly add the rest of the flour, milk and water, and mix until all lumps are incorporated.
4. Add sunflower seed oil to the batter, mix and leave for 20 minutes.
5. Heat your skillet to medium, then brush with a little bit of sunflower seed oil. Using a ladle pour some batter into the pan. Swirl the pan until the base is covered. Let sit for one minute, before flipping the crepe over and frying it for an additional 30 seconds.
6. Place the finished crepes on a plate while you prep the filling.
7. In a seperate bowl mix cottage cheese, egg, dill, salt and pepper.
8. Spread the filling evenly over the crepes.
9. Fold one side of the crepe then roll it up. Then cut the nalysnyky in half.
10. Line the rolled nalysnyky in a ceramic baking dish, then pour in 2 tbsps of heavy cream.
11. Cover with aluminum foil or an oven safe lid and bake for 20 minutes at 400F.
12. Serve warm.

Resources

Adane. Cottage Cheese Health Benefits and Nutrition Facts. American Dairy Association North East. (2025, April 11). https://www.americandairy.com/health-wellness/benefits-of-dairy/cottage-cheese/#:~:text=Origin%20of%20Cottage%20Cheese,supply%20due%20to%20food%20shortages.

Baur, J. (2023, February 24). Buttery Nalysnyky (Ukrainian crepes) with sweet syr filling. BBC News. https://www.bbc.com/travel/article/20230224-buttery-nalysnyky-ukrainian-crepes-with-sweet-syr-filling

Braĭchenko, O. I., Hrymych, M., Lyl'o, I. M., Reznichenko, V., & Kravchenko, O. (2020). Ukraine--food and history. Ïzhak.

Britannica. (n.d.). Cottage cheese | definition, manufacture, & consumption . https://www.britannica.com/topic/cottage-cheese

Covington, L. (2023, September 1). Rennet: A key cheese-making ingredient. The Spruce Eats. https://www.thespruceeats.com/what-is-rennet-4801623

Innichka. (2025, April 16). How to make Ukrainian style farmer's cheese, called Syr (video). InnichkaChef. https://www.innichkachef.com/post/how-to-make-ukraine-style-farmer-s-cheese-called-tvorog-video

Farley, M. P. (2014). Introduction. In Festive Ukranian Cooking (p. xi). University of Pittsburgh Press. https://doi.org/10.2307/j.ctt7zwbs9.4

Fresco. (2025, January 26). 5000 years of flavor: The history of sunflower oil. Avesafya Oil. https://www.avesafya-oil.com/2022/10/13/5000-years-of-flavor-the-history-of-sunflower-oil/

Grok. (1970, January 21). Palatschinke. Grokipedia. https://grokipedia.com/page/Palatschinke

Kukurudza, O. (2023, September 27). Sunflowers, the national flower and economic powerhouse of Ukraine | by Oksana Kukurudza's sunflowers rarely break | the pub | medium. Medium. https://medium.com/the-pub/sunflowers-the-national-flower-and-economic-powerhouse-of-ukraine-b82d151b3067

Lesya. (2025, May 4). How to make Ukrainian Crepes (nalysnyky) - videos included [4 recipes]. Matusya's Kitchen. https://www.matusyaskitchen.com/ukrainian-filled-crepes-recipe/

Tiazhka, L. (2022, February 22). Top 15 most delicious sweets in Ukraine. Etnocook. https://etnocook.com/best-ukrainian-delicious-sweets-and-desserts/#:~:text=The%20word%20Sochnyk%20is%20from,taste%20of%20this%20Ukrainian%20treat.

Ukraine. Food in Ukraine - Ukrainian Food, Ukrainian Cuisine - traditional, popular, dishes, recipe, diet, history, common, meals, staple. (n.d.). http://www.foodbycountry.com/Spain-to-Zimbabwe-Cumulative-Index/Ukraine.html

Videiko, M. (2024). Trypillia culture. Encyclopedia of Ukraine. https://www.encyclopediaofukraine.com/display.asp?linkpath=pages%5CT%5CR%5CTrypilliaculture.htm#:~:text=Trypillia%20culture%20or%20Trypillian%20culture,ca%205000%20and%203000%20BC.

Voloshin, I. (2025, August 4). Cultural foodways: Ukrainian cuisine. Today's Dietitian Magazine. https://www.todaysdietitian.com/cultural-foodways-ukrainian-cuisine/

Yanaway, Q., Baum, M., & Saunders, B. (2022, December 10). Chapter 9: Ukrainian cuisine, culinary traditions, and food security. Being Ukraine. https://openpress.digital.conncoll.edu/beingukraine/chapter/chapter-3-food-and-agriculture-in-the-breadbasket-of-europe/

Pesto Alla Genovese

A History of Flavour and Place

Charlie Kassissieh

Kassissieh Family Pesto Recipe

Story:

This is our favorite pesto recipe. We love it just the way it is. We also try endless changes based on what's in the cupboard and the garden. Pesto is Richard's favorite.

Ingredients:

- 3 large garlic cloves
- ½ cup pine nuts
- 2 oz Parmigiano-Reggiano, coarsely grated (2/3 cup)
- 1 teaspoon salt
- ½ teaspoon black pepper
- 3 cups loosely packed fresh basil
- 2/3 cup extra-virgin olive oil

Directions:

With food processor running, drop in garlic and finely chop. Stop motor and add nuts, cheese, salt, pepper, and basil, then process until finely chopped. With motor running, add oil, blending until incorporated.

My family's pesto recipe comes from my mother in our family cookbook "Cooking With the Kassburgs", it stems from a combination of existing recipes and her personal experience in cooking.

Figure 3. Cooking With the Kassburgs

Figure 01

The word pesto originates from the Genovese root pestâ, meaning 'to pound' or 'to crush' referencing the action taken in classic pesto recipes using a mortar and pestle to grind ingredients, extracting aroma and flavour (Osta, 2020). Two of the most important historical predecessors to the modern pesto recipe are Moretum and Agliata, both medieval Roman sauces made in a mortar and pestle, using garlic as the central flavour. The inclusion of sweet basil started around the 19th century, with its first print appearance in 1865, stemming into two distinct recipes, pesto in Italy, and pistou in France. Importantly, pistou may contain cheese but historically omits nuts of any kind. While time carried on and the popularity of sweet basil in Italy grew, the specific basil used for modern pesto, *basilica Genovese*, was appointed a PDO (protected designation of origin) label, protecting the herb's vital flavours and land on which they are created (Spence, 2024).

Figure 02

There are many variations of pesto scattered around southern Europe. In Sicily, there are two distinct recipes taking inspiration from the classic Genovese recipe. *Pesto alla Trapanese* originates in the city of Trapani around the 16th and 17th centuries, when Genoese sailors brought agliata, an early pesto rendition, across the waters. Sicilian use of tomato crops as a significant source of income quickly reshaped the recipe into its own regional variation, opting for the use of local tomatoes, almonds, garlic, and pecorino cheese (Ignazio, 2025). In the region of Bronte, Sicily, a similar story appears with the *pistacchio verde di Bronte*. Arabic pistachios made their way to Italy through the Romans, but had a difficult time thriving in new conditions until they were introduced to Mt. Etna, where production thrived. The now PDO regulated Bronte pistachios took the place of pine nuts in the Genoese recipe, adding unique regional flavours ("Pistacchio Verde di Bronte PDO," n.d.).

On Olive Oil

Extra-virgin olive oil is the main emulsifying agent present in pesto alla Genovese (Osta, 2020). The exact geographical origin of olive tree domestication is a debated topic. Multiple theories dispute single vs multiple domestication sites, as well as the distinct locale of its first appearance. (Barazani et al., 2023). Olive cultivation originated in the Levant, which is the historical land in the Middle East that makes up modern-day Lebanon, Jordan, Israel, Palestine, Syria, Cyprus, and part of Turkey ("Levant," 2025).

Research by Besnard et al. (2013) used plastid DNA profiling with the aim of tracing the roots of olive species back to their beginning. Three diverging lineages, E1, E2, and E3, were found stemming from the wild olive plant, Olea europaea. Ultimately, 90% of cultivated subjects belonged to the E1 lineage, leading the authors to align with a northeastern theory of inception near the Syrian/Turkey border.

Palynological and archeological evidence using pollen and leftover pits as biological markers indicate the presence of wild olive varieties in Geshar Benot Ya'akov, located in modern-day Israel, sometime in the mid Pleistocene (~780 kya BP). More modern agricultural cultivation of the olive tree appeared around the Epipaleolithic period (23,000 BP), in the region of Ohalo, also modern-day Israel, leading Barazani et al. (2023) to conclude in favour of a more southern origin.

Levant geographic location

Evolutionary History

As olives were increasingly domesticated, genotype evolution developed due to "agronomic value", meaning that trees with larger fruits, higher oil content, greater levels of successful fruit development, and increased ease of propagation all contributed to varieties that were in effect artificially selected by humans to prosper (Besnard et al., 2018). These changes resulted in the development of major alterations to domesticated olive varieties over time, including lower variation in pit length and width, as well as higher tolerance for water deprivation due to farming conditions. Additionally, when comparing wild and domestic olive varieties, it was observed that wild genotypes had a longer juvenile phase, as well as a more bush-like structure, which were undesirable traits to those interested in the cultivation of olives. While production continued, wild and domestic varieties began to mix, creating hybrid lineages. With domesticated species holding a reproductive advantage, the line between wild and domesticated olives has become increasingly ambiguous (Barazani et al., 2023).

Figure 05

Olea europaea subsp. europaea var. sylvestris

The Path of Parmesan

Named after the regions of Parma and Reggio, Italy, Parmigiano Reggiano has cemented itself as one of the most popular cheese varieties worldwide (*Parmigiano Reggiano | WikiCheese | Fandom*, n.d.). Along with international fame, authentic Parmesan cheese is protected under a PDO, or protected designation of origin label, which limits production of the cheese to specific provinces, namely, Parma, Reggio Emilia, Modena, as well as specific parts of Mantua and Bologna, Italy (Popping et al., 2017). Geographic location is so important to the production of Parmesan that techniques like isotope fingerprinting, and analysis of mineral profiles are used to guarantee a genuine product (Cardin et al., 2022). The cheese is defined by an extra-hard texture and a unique, sharp flavour, stemming from its strictly monitored production using raw bovine milk (Gagliano et al., 2025).

The earliest evidence of Parmesan trade dates back to the early 1200s with the mention of *Caseus Parmensis,* or cheese from Parma, in historically retrieved writing (*Atlante Gastronomico Della Food Valley*, n.d.). The first cheese diaries mentioning Parmigiano date back to 1305/06 in the regions of Parma and Reggio Emilia. During this time, most of the cheese was transported to be sold in Parma, which led to the adoption of its regional name. Around 1612, the already famous cheese began to encounter its earliest imitations, which is when the Duke of Parma established the first place-based safeguards defending the use of Parma as a regional indicator when selling cheese. The 20th century brought another set of developments to Parmigiano Reggiano's growing identity, first, in 1928, the voluntary consortium of Grana Reggiano was established to govern and protect the name, which was subsequently formalized in 1938, before gaining the PDO status in 1996 that it still holds to this day (Parmigiano Reggiano History, n.d.).

Through its rich history, Parmigiano Reggiano has held a close relationship with its place of origin. As one of the most imitated foods in the world, protections around geographic origin and quality control are integral to continuing the tradition of authentic Parmesan cheese (Cardin et al., 2022). With over 3 million wheels of DOP-certified Parmesan produced annually, the connection between Emilia Romagna and its cheese product is not just that of origin, but great mutual support (Belletti & Marescotti, 2011).

Effects of PDO Regulation

There are two main areas of control upheld by PDO (protected designation of origin) regulations that lead to artificial selection around authentic Parmesan cheese, cattle diet, and material usage choices (Popping et al., 2017). Cattle are kept on a strict diet, excluding silage and fermented foods, this rule is used as a bio-marker as the cheese can be checked for cyclopropane fatty acids, which will not be present if the diet is adhered to (Cardin et al., 2022). The cows are also fed with exclusively fresh herbage instead of the alternative dry hay that other cheese varieties commonly use, increasing carotenoid content and sustaining the classic aroma and yellow tint (Gagliano et al., 2025).

Through the production process, the evolutionary transition of the Parmesan cheese product is kept within strict walls. The goal of a PDO regulation is to minimize deviations within a products characteristics in the interest of preserving quality and identity. Processing restrictions protect Parmigiano from alterations that could otherwise be seen resulting from modern technology, the expulsion of additives and preservatives maintain historical roots leading to a product kindred to what you would see looking back through time (Cardin et al., 2022).

Figure 06

Parmigiano Reggiano

Terroir, Tradition, and Taste

The rich culture of Genoa had a massive effect on the evolution of Pesto alla Genovese. Beginning in ancient Rome with Moretum, the cheese-centric spread made from garlic, salt, mild cheese, choice herbs (typically parsley/coriander), olive oil, and vinegar, was eaten with flatbread mainly by farmers. Moretum was made through a familiar method of grinding each ingredient together in a mortar to create a paste. As the Roman Empire moved into the Middle Ages, the Moretum recipe evolved into Agliata, garlic being the main focus, due to its many preventative health benefits, crushed together with walnuts, olive oil, salt, and pepper, but notably, a lack of cheese (Cabral, 2025). This recipe was adopted by sailors seeking protection from sickness over long voyages, who then subsequently began to add local Genovese basil, birthing the recipe we know today (Campana, 2023). The technique of emulsification using a mortar and pestle is a major cultural tradition dating back as far as ancient Rome, with Moretum. Continuing these practices when making traditional pesto does more than just create an authentic product, it speaks to the identity of the food and the land it comes from (Cann, 2025). Overall, the pesto recipe is more than just a culinary dish, it is a representation of the long history of Genoa, the people, place, and culture.

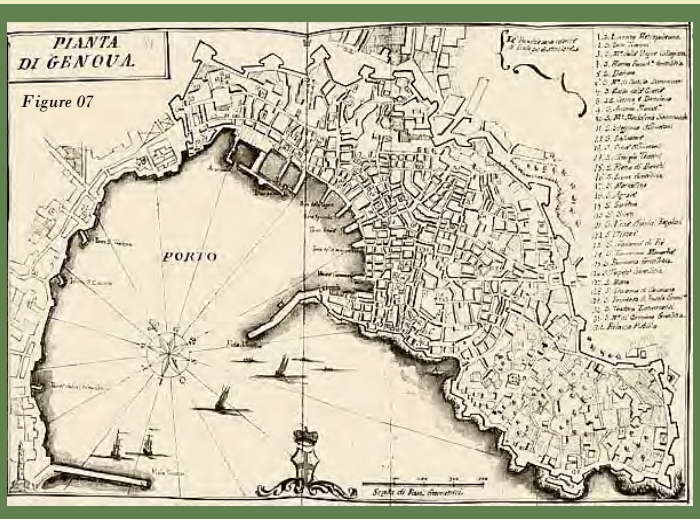


Figure 07

Historical map of Genoa

Beyond culture, the landscape and climate of Genoa made the recipe's creation possible. Cornerstone ingredients may have never come together without the specific conditions met by the area. The Mediterranean environment in Liguria, surrounding Genoa, is responsible for the specific variety of basil integral to pesto's standout flavour when compared to root recipes. Basil thrives in sunny conditions, long days and warm weather, all present in Liguria, aiding in the widespread use of the herb. Additionally, PDO regulations on key ingredients aid in the upkeep of regionally inspired flavours. *Basilica Genovese* grows in mandated regions, in specific soils, creating a unique chemical composition high in linalool, responsible for increased fragrance, and low in estrogale, which lowers notes of mint (Formisano et al., 2021). Ordinance around Parmesan cheese also leads to place-based differences, restricting cattle diets to regional vegetation creates an unreplaceable flavour. With the addition of mandates banning the use of additives, the microbiota that eventually become Parmigiano are guaranteed to be a reflection of the land (Cardin et al., 2022). Similar to PDO-protected wines, whose subtle notes speak to the locale, upbringing, and care present in their making, the unique history, geography, and culture surrounding *Pesto alla Genovese* does more than represent the name Genoa, it embodies it completely.

Figure 08

Modern day Liguria

References

Atlante Gastronomico della Food Valley. (n.d.). Retrieved November 30, 2025, from https://crpalab.crpa.it/media/documents/crpalab_www/documenti/006_Parmigiano_bassa.pdf?utm

Barazani, O., Dag, A., & Dunseth, Z. (2023). The history of olive cultivation in the southern Levant. *Frontiers in Plant Science*, *14*, 1131557. https://doi.org/10.3389/fpls.2023.1131557

Belletti, G., & Marescotti, A. (2011). Origin products, geographical indications and rural development. In E. Barham & B. Sylvander (Eds.), *Labels of origin for food: Local development, global recognition* (1st ed., pp. 75–91). CAB International. https://doi.org/10.1079/9781845933524.0075

Besnard, G., Khadari, B., Navascués, M., Fernández-Mazuecos, M., El Bakkali, A., Arrigo, N., Baali-Cherif, D., Brunini-Bronzini de Caraffa, V., Santoni, S., Vargas, P., & Savolainen, V. (2013). The complex history of the olive tree: From Late Quaternary diversification of Mediterranean lineages to primary domestication in the northern Levant. *Proceedings of the Royal Society B: Biological Sciences*, *280*(1756), 20122833. https://doi.org/10.1098/rspb.2012.2833

Besnard, G., Terral, J.-F., & Cornille, A. (2018). On the origins and domestication of the olive: A review and perspectives. *Annals of Botany*, *121*(3), 385–403. https://doi.org/10.1093/aob/mcx145

Cabral, L. (2025, April 12). *The History of Pesto*. Back Then History. https://www.backthenhistory.com/articles/the-history-of-pesto

Campana, R. (2023, January 27). *The ancient roots of Pesto—Stop Italian Sounding*. https://stopitasounding.com/2023/01/the-ancient-roots-of-pesto/

Cann, C. (2025, July 23). *Food and Ritual*. Obo. https://www.oxfordbibliographies.com/display/document/obo-9780197764381/obo-9780197764381-0052.xml

Cardin, M., Cardazzo, B., Mounier, J., Novelli, E., Coton, M., & Coton, E. (2022). Authenticity and Typicity of Traditional Cheeses: A Review on Geographical Origin Authentication Methods. *Foods*, *11*(21), 3379. https://doi.org/10.3390/foods11213379

Formisano, L., Ciriello, M., El-Nakhel, C., Kyriacou, M. C., & Rouphael, Y. (2021). Successive Harvests Modulate the Productive and Physiological Behavior of Three Genovese Pesto Basil Cultivars. *Agronomy*, *11*(3), 560. https://doi.org/10.3390/agronomy11030560

References

Gagliano, M. A., Tura, M., Soglia, F., Cevoli, C., Barbieri, S., Braschi, G., Bendini, A., Gallina Toschi, T., Petracci, M., & Valli, E. (2025). Sensory and Instrumental Characterization of Parmigiano Reggiano Protected Designation of Origin Cheese Obtained from Milk of Cows Fed Fresh Herbage vs. Dry Hay. *Foods*, *14*(10), 1781. https://doi.org/10.3390/foods14101781

Ignazio. (2025, May 13). The Origins of Pesto alla Trapanese: A Recipe Born from the Sea. *Campo d'Oro - Real Sicilian Taste*. https://www.campodoro.com/news/pesto-alla-trapanese/

Levant. (2025). In *Simple English Wikipedia, the free encyclopedia*. https://simple.wikipedia.org/w/index.php?title=Levant&oldid=10427786

Osta. (2020). *The Science of Pesto | Microbiology*. Labroots. https://www.labroots.com/trending/microbiology/18412/science-pesto?utm

Parmigiano reggiano | WikiCheese | Fandom. (n.d.). Retrieved November 28, 2025, from https://cheese.fandom.com/wiki/Parmigiano_reggiano

Parmigiano Reggiano History. (n.d.). *Museo Del Parmigiano Reggiano*. Retrieved November 30, 2025, from https://parmigianoreggiano.museidelcibo.it/prodotto/cronologia/

Pistacchio Verde di Bronte PDO: Qualigeo. (n.d.). *Qualigeo :: Banca Dati Europea Dei Prodotti DOP IGP STG*. Retrieved December 1, 2025, from https://www.qualigeo.eu/en/product/pistacchio-verde-di-bronte-pdo//

Popping, B., De Dominicis, E., Dante, M., & Nocetti, M. (2017, February 16). *Identification of the Geographic Origin of Parmigiano Reggiano (P.D.O.) Cheeses Deploying Non-Targeted Mass Spectrometry and Chemometrics*. https://www.mdpi.com/2304-8158/6/2/13?utm

Spence, C. (2024). Sweet basil: An increasingly popular culinary herb. *International Journal of Gastronomy and Food Science*, *36*, 100927. https://doi.org/10.1016/j.ijgfs.2024.100927

Figures

Figure 01: https://www.giallozafferano.com/recipes/Genoese-pesto-Pesto-alla-genovese.html

Figure 02: https://www.thespruceeats.com/classic-basil-pesto-sauce-recipe-995923

Figure 03: My own photography of my family cookbook

Figure 04: https://simple.wikipedia.org/w/index.php?title=Levant&oldid=10427786

Figure 05: https://www.teline.fr/en/photos/oleaceae/olea-europaea-subsp.-europaea-var.-sylvestris

Figure 06: https://cheese.fandom.com/wiki/Parmigiano_reggiano

Figure 07: https://en.wikipedia.org/w/index.php?title=Republic_of_Genoa&oldid=1323999763

Figure 08: https://italianismo.com.br/en/regiao-da-liguria-tem-cidade-com-melhor-clima-da-italia/

Documenting The Journey of the Pierogi Across Centuries and Continents

I can remember my first experience with pierogi as a child, watching my parents pan frying these plump, steaming, dumplings. These doughy pockets filled with potato and cheese, topped with sour cream and caramelized onions, although not to my knowledge then, connected me with centuries of history. History leading back to the fields of the fertile crescent where wheat was first domesticated1; to the high valley walls in the Andes where native tubers were cultivated into modern potatoes2; and to the immense cultural history, spanning migration, war, famine, and hope throughout Eastern Europe. Looking back now, those first bites had me tasting more than just a meal, I was tasting history.

This article traces the origins of the pierogi and its journeys around the world throughout its many shapes and forms. By connecting agriculture, geography, culture, and personal relationships, I aim to show how incredible this humble dumpling is at embracing the people and past that brought it into the present.

Geographic Origins of The Main Ingredients:

There are a few main ingredients involved in making the traditional pierogi. Throughout history there have been many different ways of making this dumpling, all fillings have their unique origins and adaptations. My family has a historical connection to the regions of Poland and Ukraine in Eastern Europe, so for this article the Polish recipe of Pierogi Ruskie will be referenced. Wheat is used for the flour in the dough, and potatoes and a dairy product such as cheese is used for the filling. Each of these ingredients have made their way into the polish pierogi through years of trade and cultural development.

Wheat:

The dough for the pirogi is very simple: flour, water, salt, and sometimes eggs are used3. A cultivated wheat, most typically bread wheat (Triticum aestivum) was one of the first domesticated grains. Western archaeologists who identified the arrival of domesticated wheat in Europe noted it as an event of critical significance in the history of humankind1. Wheat was first domesticated in the fertile crescent running from along the eastern shore of the Mediterranean to the Persian Gulf, while its peak reaches the caucus mountains. From here the domestication of wheat spread across Europe during the Neolithic revolution approximately 10000-6000 years ago1. As the wheat spread northward, it underwent artificial and environmental selection for traits such as gluten elasticity, which makes dumpling impossible to form. Over the following centuries wheat adapted to vast and diverse climates, from the dry Mediterranean to the shorter growth seasons of Northern Europe. The flexibility of this crop allowed for wheat to become a cornerstone of European agroecology.

Potatoes:

The polish ruskie pierogi as mentioned before has a mashed potato and cheese filling. These iconic fillings components come from a plant with dramatically different origins. The potato as we know it today (Solanum tuberosum) comes from the highlands of the equatorial Andes, where the Indigenous peoples in the area domesticated tubers with help from stable climates2 (Figure 1). Potatoes were first introduced in Europe in the 16th century in the wake of the Columbian Exchange, where transoceanic voyages reconnected landscapes previously separated through continental drift4. The critical component for the success of potato development in Europe, is that potatoes had genetically adapted to survive and later thrive in the long day photoperiod and temperate growing seasons of European latitudes2. A genetic analysis of European potatoes showed deep connections to Andean origins, yet over time intermingled with other south American genotypes better suited to the European climates2. As the potato worked its way around Europe, it solidified its place as a staple in the diets of many people and cultures, especially in regions where other crops struggled5.

Dairy and Cheese:

Many of the traditional pierogi fillings employ some form of cheese or dairy product, such as soft cheeses (farmers Cheese), sour cream, and butter for frying6. The use of diary in pierogi reflects the deep history around European animal husbandry, agriculture, and pastoralism. There is little information on the origins of how and when these dairy products were first made and implemented in Polish cuisine. However, we can assume the mixed farming methods yielding these grains, tubers, and dairy products, were beneficial for when the winters were harsh and long, and a diet dependent on resilient agriculture was necessary.

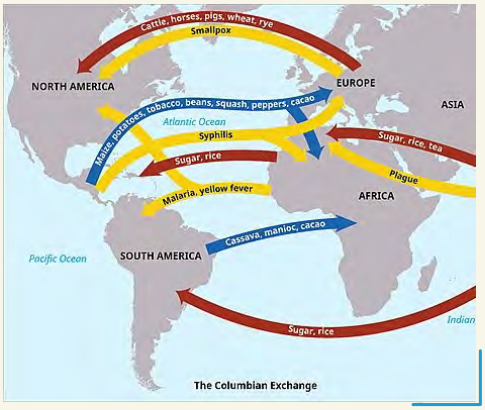


Figure 1: Columbian Exchange

Bio-Geo-Physical Context:

The pierogi fits into Eastern Europe's landscape and climate so well due to the agricultural structure of the time. Eastern and Central Europe which encompasses modern day Poland, Ukraine, Belarus, Slovakia, Lithuania, and many more, all share a similar climate. The cold winter months followed by moderate summers produced a shorter growing season, increasing the dependency on crops with hearty grains, root crops, and animal husbandry for their meats and dairy, to combat these conditions. The implementation of the potato fundamentally changed the dietary landscape in Europe, the high yields in poor soil and climatic conditions increased the value of this crop substantially2. These products evolved through natural and anthropogenic selection to thrive in these new climates and in doing so informed the diet selection for people from thereon out. This agricultural structure moulded the landscape for the pierogi to thrive. Wheat for the dough, potato for the filling, and dairy for the rich flavour; these components were shaped by the very climate, geography, and people inhabiting this area at this time in history. The pierogi is not a separate entity from the environment, the environment is what made the pierogi what it is today.

Cultural and Historical Evolution of Pierogi:

The exact origin of the pierogi is still debated and questioned to this day; it is difficult to trace the exact instance of a filled dough dumpling reaching the landscape. However, many food historians suggest that this dumpling originated in central Asia or the Middle East, perhaps travelling to Kyiv along the Silk Road during the time of consistent overland contact between Europe and east Asia7. The pierogi also has rumored origins in the folklore of Poland. The legend says that pierogi came to our country thanks to Hyacinth of Poland, the Dominican friar, who lived in poverty, and having only flour, cabbage and mushrooms, combined these ingredients into one, from which the Polish "pierogi" originated3. While this origin explanation is more likely myth than concrete history, it represents how deeply embedded this dish is within the culture and collective memory. The first written evidence of pierogi appeared in print in the late 17th century7. The first known Polish cookbook by the name of Compendium Ferculorum was published in 1682 by a renowned cook Stanisław Czerniecki8. Although, it is important to mention that these early recipes for pierogi do not contain any potatoes since they were not a common crop at this time.

Evolutions of the Pierogi Fillings:

The larger scale adoption of the potato throughout Europe after the Columbian Exchange began to transform the diets of this region. The characteristics of the potato matched the social, cultural, and economic needs at the time, so potato dishes increased in popularity 2,5. With the popularity of these dishes increasing, cooks began implementing them into their dumpling fillings. These new mashed potato fillings were incorporated with soft cheeses, onions, butter, or lard, making the filling inexpensive and delicious9. This variation on the pierogi filling became known as the pierogi ruskie. Despite pierogi ruskie commonly translating as Russian dumpling, the name is misleading as this variety of pierogi has no historical connection to Russia8. In fact, the term "Ruskie" refers to "Ruthenia" which is the pre-war region of Poland which is now part of Ukraine9. Before the war many Ukrainian residents referred to the pierogi ruskie as the polish pierogi8. Since then, the potato-cheese based pierogi has become the most widespread form of pierogi around the world.

Figure 2

Pierogi as a Cultural Symbol:

Pierogi have shifted from a dish that was brought out for occasional feasts, to an everyday staple in the household, especially in the working class and peasant households of the past10. Pierogi has become a cultural anchor for the Polish diaspora all around the world. As Poles emigrated the pierogi travelled with them, this dish has worked as a reminder of home all over the planet. Many diaspora communities in places such as Canada have developed such a connection to pierogi that monuments have been erected in honor of this dish, like that of Glendon Perogy Park in Alberta (Figure 2). Pierogi remain embedded in cultural identity for many in the Eastern European communities, they signify family gatherings, religious holidays, and a sense of home that transcends generations and borders.

Variations and Adaptations:

Pierogi can span the whole range of culinary experience. There are savory, sweet, traditional, and fusions of the pierogi filling that can be found all around the globe. There are several savory pierogi fillings such as the ruskie for everyday meals, the sauerkraut and mushroom used for winter and Christmas celebrations, and the multitudes of meat fillings representing the seasonal availability of those ingredients9. There are even desert pierogi filled with fruits or sweet cheeses used during name-day parties or other celebrations. New communities have even adapted their own fillings to mirror their own cultures with vegan and sweet and savory mixtures10. The adaptability of pierogi demonstrates how local environments, seasonal constraints, cultural identity, and global influence can all be reflected all at once in this simple but incredible dish.

Personal Statement:

Although my first experience with pierogi still holds a fond memory for me, It was not until later in my life that I realized I never had gotten the true experience. I had never eaten real pierogi made from scratch before, my only exposure was with the large bag of prepackaged frozen dumplings from Costco. I cannot blame my parents and grandparents for this, who was I to ask for such pompous treatment when they had much more important work to do. So, now that I am older, I have the opportunities to cook for myself and explore the culinary world at my pleasure. I was walking through the grocery store and saw the same bag of frozen pierogi that had always been my comfort food, as I went to reach for them, I stopped myself. I said that this time is different, I would try to make this dish from scratch and not submit to the ease of a reheated dinner. I wanted to deepen that connection to a side of my family I had never experienced before. This article documents the experience I had when making these pierogi with my own hands for the first time.

Pierogi Ruskie Recipe:

This recipe was inspired by another traditional Ruskie Pierogi recipe with my own alterations and changes I thought would make for great Pierogi11.

Ingredients

For the filling:
3 Large Russet Potatoes
250g of Farmers cheese
1 Yellow Onion Diced
1/2 tsp Garlic powder
1/2 tsp Onion powder
Butter for Onions
Salt & Pepper to taste

For the dough:
3 cups All Purpose Flour
1/2 cup Warm Milk
1/2 to 3/4 cup Warm Water
1 tbsp Melted Butter
Salt

Instructions

For the filling:
For the filling, start by peeling potatoes and placing them in a large pot, cover the potatoes in water and cook until a fork goes into the potato easily. While the potatoes are cooking in a small skillet, heat up some butter and add the onion, cook until golden brown. Once the potatoes are cooked, mash them until no lumps remain, once the texture is smooth add your farmers cheese, cooked onions, salt, pepper, and mix them all together well.

For the Dough:
Start by pouring your flour on a surface that will allow you to make the dough, add a small pinch of salt to the mound of dough as well. Create a well in the dough and pour in the milk and melted butter, combine the milk butter mixture with the flour. Slowly add water to the dough, no more than a tablespoon at a time to make sure that the dough does not get too wet. Knead the dough for about 10-15 minutes until it starts to form a ball that is slightly elastic. Place this ball of dough into a bowl, cover with saran wrap, and let sit for 20-30 minutes. This will allow the gluten in the dough to relax and make the dough more pliable. Roll out the dough into quite thin sheets, no thicker than 4mm, using something circular, cut out the circles in the dough, take the excess, knead together again and repeat the process until there is no remaining dough.

For Making Pierogi:
Place one teaspoon sized ball of the filling in the centre of each dough circle. Get a small bowl full of water and wet fingers to wet one half of the dough circle. Hold the dry edge over to the wet edge and seal the pierogi shut from the center to the edges. Once all pierogi are formed, boil a pot of salted water and add the pierogi to the pot, not more than 8 at one time or the pot will get crowded. The pierogi will sink at first but as they cook, they will float to the top of the water, leaving them to cook for one more minute when they begin to float. Take the pierogi out of the water and set on a rack to dry, from here you can dig in, but if you want to fry them, heat up a skillet with butter and fry the pierogi for about 2-4 minutes each side until a golden-brown crust is formed. Now these pierogi are ready to eat, plate with sour cream and green onion for the best reactions when serving friends and family.

Reflection:

Pierogi exemplifies how even the most simplistic dishes are a rich tapestry woven from the unique human ecology, history, migration, and culture. Wheat in the dough that grew from the fields along the Mediterranean coast spread across the world, the filling made from potatoes shipped across oceans from Andean valleys, and the cheese and dairy embodying the centuries of European pastoralism and agriculture. Throughout time pierogi has transformed from a meal for elite society, to a staple of peasants, to a grounding diaspora food, to a new culinary experiment ground. This humble dumpling has adapted to changing climates, cultures, and geographies and continues to provide comfort to all those who enjoy them. Undoubtedly pierogi will continue to transform, it will evolve with the people who consume them, stretching to every corner of the globe. By cooking and sharing this dish, we are doing more than just consuming calories, we are tapping into the centuries of history, innovation, human movement, and culinary creativity. We taste more than just potato, cheese, and dough, we taste a sense of home, memory, and belonging.

1McCorriston, J. (2000). Wheat. *Cambridge University Press EBooks*, *1*, 158–174. https://doi.org/10.1017/chol9780521402149.020

2Gutaker, R. M., Weiß, C. L., Ellis, D., Anglin, N. L., Knapp, S., Luis Fernández-Alonso, J., Prat, S., & Burbano, H. A. (2019). The origins and adaptation of European potatoes reconstructed from historical genomes. *Nature Ecology & Evolution*, *3*(7), 1093–1101. https://doi.org/10.1038/s41559-019-0921-3

3Józef Hernik, Walczycka, M., Sankowski, E., Harris, B. J., & Springerlink (Online Service. (2022). *Cultural Heritage - Possibilities for Land-Centered Societal Development* (pp. 112–122). Springer International Publishing.

4McNeill, J. R. (2022). Columbian Exchange | Diseases, Animals, & Plants. In *Encyclopedia Britannica*. Britannica. https://www.britannica.com/event/Columbian-exchange

5Messer, E. (2000). Potatoes (White). *Cambridge University Press EBooks*, *1*, 187–201. https://doi.org/10.1017/chol9780521402149.023

6Strybel, R. (2003). *Polish holiday cookery* (p. 22). Hippocrene Books.

7McNamee, G. L. (2022, October 18). *Pierogi | Meaning, Types, Recipe, & Polish Culture*. Encyclopedia Britannica. https://www.britannica.com/topic/pierogi?

8Kasprzyk-Chevriaux, M. (2014, May 22). *Polish Food 101 – Pierogi*. Culture.pl. https://culture.pl/en/work/polish-food-101-pierogi

9Mętrak-Ruda, N. (2022, December 9). *Poland's Most Famous Dish: PIEROGI*. Culture.pl. https://culture.pl/en/article/polands-most-famous-dish-pierogi

10Mętrak-Ruda, N. (2019). *The Pierogi Renaissance: How Poland's Most Famous Dish is Reinventing Itself*. Culture.pl. https://culture.pl/en/article/the-pierogi-renaissance-how-polands-most-famous-dish-is-reinventing-itself

11Edyta. (2018, December 7). *Authentic Polish Pierogi with Potatoes and Cheese (Pierogi Ruskie)*. Eating European. https://eatingeuropean.com/authentic-polish-pierogi-potatoes-cheese/

12Meier, J. (2025). *Farmer Cheese* . The Spruce Eats. https://www.thespruceeats.com/how-to-make-farmers-cheese-591547

POLENTA

TRADITIONS GROWN FROM POVERTY: EVOLUTION OF POLENTA OVER THE AGES

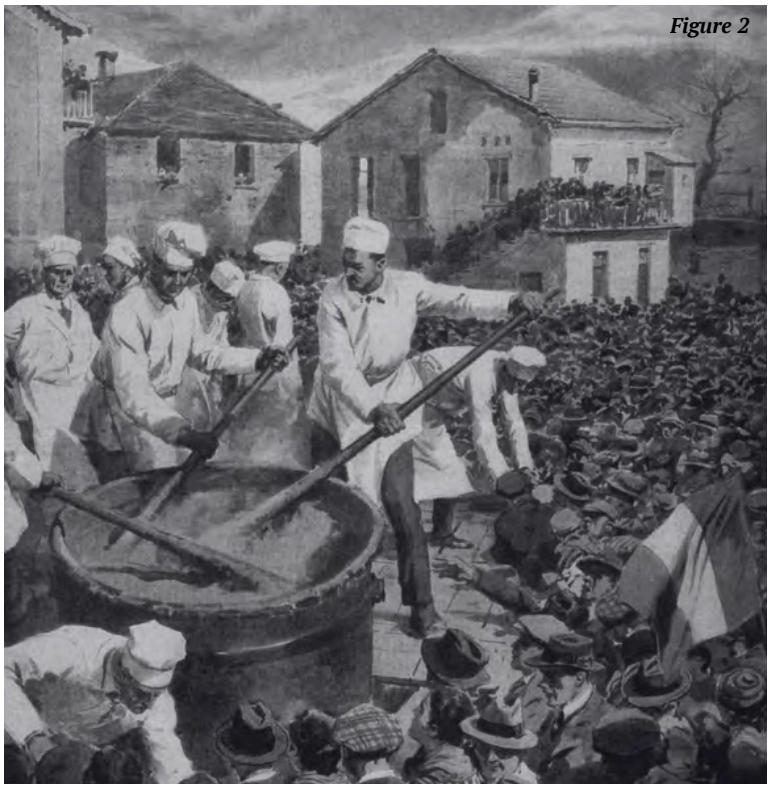
Figure 1

"Bread of the poor" - Miramonti Corteno

Polenta is an ancient Italian dish, dating back to the 6th Century BCE as part of the Villanovan culture in Etruria (Malpezzi & Clements, 2005). The dish has been part of local Italian cuisine since before the emergence of the Roman Empire. Historically, the Etruscan diet has been found to have consisted of diversified crops such as wheat, barley, rye, and spelt, which were consumed in the form of soups and porridges (Rebora, 2001, p. 4). The name polenta is derived from the word puls, which refers to porridge made of pearl barley.

Figure 3

Figure 2



History

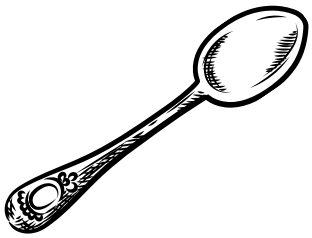
The dish only became what is known today as polenta in the early 1500s. Prior to the 16th century, corn had not been a part of European cuisine, and was only introduced to Italy after Christopher Columbus' voyage back from the Americas. For hundreds of years, the dish was a bland porridge called puls by the Etruscans, which was made from grinding grain called frumentum (Malpezzi & Clements, 2005).

With the transition into the Roman Empire, puls became a more common meal due to its simplicity and low cost to make. Despite its low nutritional value, recipes of puls slowly changed over time for the benefit of nutrients and caloric intake.

“Mi emigro per magnar”

I’m emigrating so I can eat.

Delizia PAGE 216



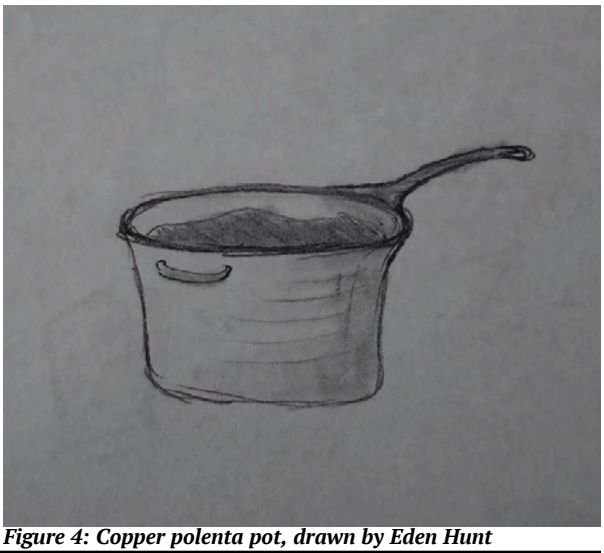


Figure 4: Copper polenta pot, drawn by Eden Hunt

Geographic Origin

The two main ingredients of modern polenta are salt and cornmeal, neither of which were originally harvested in Italy. Salt has been used in simple seasoning throughout history, and has been harvested from mineral deposits and seawater across the world (Massimo Círillo et al., 1994). In Italy, salt has been prevalent in society and cultural life since before 7th century BCE, after industrial-scale production of salt began in coastal regions (Alessandri et al., 2023). In contrast, cornmeal has only been an Italian harvested product since being brought to Europe after Christopher Columbus’ return in the 16th Century (Marchetti, 2024). Veneto became the first region in Italy to cultivate corn and popularize it as a fast growing, inexpensive crop, triggering a large agrarian revolution of corn in the 1600s (Marchetti, 2024). Corn can grow in many places around the world, but it prefers warm climates with significant moisture, making Veneto a beneficial area to cultivate in.

History (cont.)

In the early days, kitchen gardens were used to harvest grain and vegetables; where bread required a kitchen garden, polenta did not, making it much less expensive to produce (Rebora, 2001, p. 6).

Once corn was brought to Italy in the 16th century by Columbus as a New World ingredient, Veneto became the first region in Italy to cultivate corn, increasing the reliance on polenta by the impoverished communities in Northern Italy (Miramonti, 2019). The ability to create a long-lasting dry ingredient that was cheap and easy to prepare was incredibly important during the Northern Italian Famine in the late 1500s (Rebora, 2001, p. 20). The low cost of cornmeal allowed impoverished people to experience a constant food source from an available and reliable resource with a long-lasting history. At the time, pasta had been seen as a treat, known as a “sin of gluttony” due to its expensive ingredients, while polenta was seen as commoner food (Rebora, 2001, p. 21).

Figure 5: Stalk of corn, drawn by Eden Hunt

In the 19th century, famine and war in Italy became a larger problem, increasing the popularity of the dish even further due to its cheap nature. The increase in famine and war in Italy became a larger problem, increasing the popularity of the dish even further due to its cheap nature. The increase in famine resulted in more emigration out of Italy and to the Americas to escape poverty and the challenges of debt and taxes (Dickie, 2008, p. 216). The extreme consumption of polenta both in and out of Italy resulted in the spread of pellagra, a disease caused by the lack of niacin (Vitamin B3). Pellegra is known to cause dementia, diarrhea, skin rashes, memory loss, and idiocy; however, the need for nutrients overrode the fear of the disease (Dickie, 2008, p. 216). The spread of pellegra from high consumption of solely polenta created a negative association with the dish, rooted in anger and envy from the wealthy's exclusion from access to proper nutrients and calories.

Mass Italian immigration into the Americas spread gastronomic knowledge between different regions to expand trade and wealth for immigrant communities. Knowledge exchange provided a change in diet through fusion foods in US cities from Sicilians, Neapolitans and Tuscans, inventing new Italian cuisine from historic and meals rooted in poverty.

Bio-Geo-Physical Attributes

Figure 6: Map of Italy with General origin area of Polenta. Drawn by Eden Hunt

Polenta was previously made of barley and wheat, which thrived in dry temperatures with well-drained soils during the growing season. Overall, barley is able to grow in multiple soil types, including clay soils and loam soils (Sustainable Agriculture Research & Education Handbook 9, 2012). Barley growth in Italy was able to survive in Northern Italy due to its diverse soil types and climatic zones. Köppen's climate classification describes the different climatic zones throughout the world, and in the case of Italy, there are three major climatic zones that stick out: the Cfb zone (temperate, oceanic climate with mild winters and warm summers), the Cfa zone (hot summers with mild winters), and the Csa zone (hot summer, Mediterranean climate) (D'Amico et al., 2019). All three climatic zones benefit the growth of barley, but even more so, corn.

Despite the drastic changes in climate since before the 1600s, it can be inferred that the climatic zones in Italy are ideal conditions for growing the primary ingredient of puls, and what is now known as polenta. Once corn was brought to Italy, and began to be cultivated in the North-eastern region of Veneto, corn cultivation was incredibly supported by the warm, Mediterranean climate in the region (Sideman, B. 2016). Similarly, corn requires an optimal soil pH of 5.5 to 7.0, and the Veneto soils that are rich in nutrients from volcanic activity and clay concentration are perfect conditions to grow this crop (Vinci et al., 2024). Even though soil composition and qualities have changed over time, the overwhelming production of corn since the introduction of the crop indicates an ideal environment for growing the crop.

Moreover, the topographical elements of Italy's landscape are incredibly beneficial for wheat and corn production. The region of Veneto is located in a low-elevation area as opposed to the surrounding mountainous landscape (World Topographic Maps, 2025). Not only is this beneficial in creating a rain shadow for crop growth, but it also blocks the wind from the incoming crops.

Despite Veneto not having direct access to salt mines, which is a disadvantage in making polenta, the region had access to sea salt from nearby lagoons, making the region a prime area for polenta to become more popularized and appreciated for its simplicity (Migliavacca, 2024).

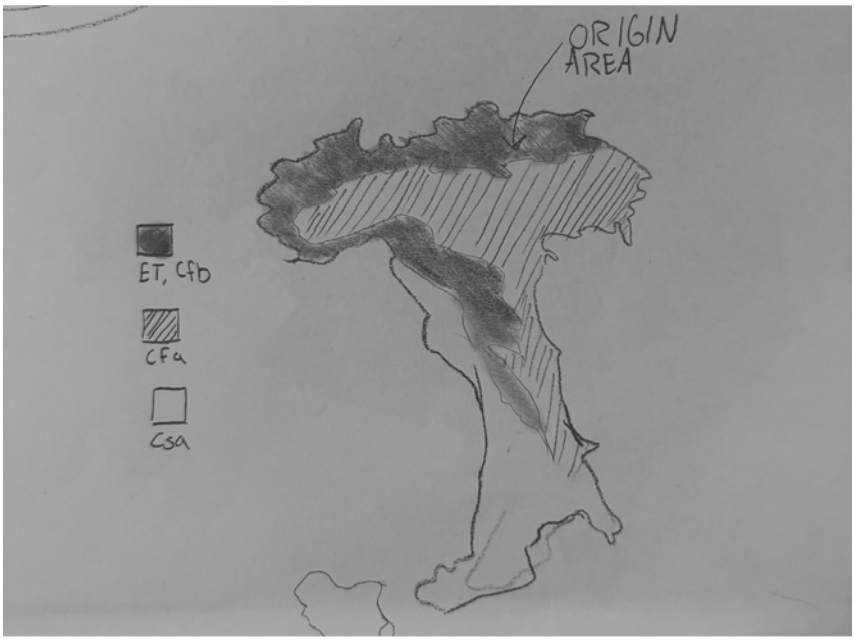


Figure 7: Koppen climate classification zones of Italy with reference of the zones on the left side. Hand-drawn by Eden Hunt.

Evolutionary Transition of Ingredients

A main reason for the sudden shift in ingredient choice from barley and wheat to cornmeal in Italian polenta resulted from societal pressures more so than anything else. After hundreds of years of wheat-based porridges, the introduction of corn into Europe provided a new flavour that was similarly easy to digest, prepare, and rich in nutrients. Moreover, corn was easy to assimilate into society and was easy to introduce to impoverished communities in Italy. With little climate adaptation needed, as mentioned previously, shifting from wheat to corn was incredibly beneficial in the long run. The high-yield and adaptable crop may be lower in calories, but it was much cheaper to cultivate for larger communities and at a faster rate.

Despite the ease in cultivation, post WWII, there had been an incredible decline in agrobiodiversity in corn cultivation in Italy due to a lack of need. With a mass spread of Italian cuisine came more wealth and less need for meals rooted in poverty. In the last 20 years, corn production has halved, prioritizing livestock feed over harvesting for human consumption (Nova, 2023). Even with less corn production, the consumption of polenta continues as a household staple and is still consumed in traditional methods. Versions of the dish around the world are made similarly and are visually similar as well.

Outside of the major ingredient change from barley and wheat to cornmeal, resulting from colonial ingredient integration, the main dish continues to remain simple and lacks any use of spices outside of salt and pepper. Even with Italian globalization and traditional knowledge exchange throughout the world, polenta remains as it is, while incorporating elements of different regions and cultures as additions to the dish.

Now, polenta is seen as a highly regarded food in different parts around the world, and is often found in higher-end restaurants in large cities (Nonna's Kitchen, 1997). Polenta is now readily available in grocery stores and sold in prepared tubes for easy use. Italian immigrations have made preparation, distribution, and consumption a ritualized endeavour through long-term communal financial and resource stress (Malpezzi & Clements, 2005, p. 234).

Cultural Importance

While the cultural importance of polenta still remains throughout Italian households, in and out of Italy, the dish has changed drastically in terms of appreciation. Before, the dish was founded in hatred and was seen as a symbol of inferiority, but now, the dish is seen as a symbol of resilience and overcoming. The re-emergence of polenta as a popular dish in mainstream culinary spaces revalues polenta and has been able to transform away from a reminder of gastronomic deprivation (Malpezzi & Clements, 2005, p. 143).

In 1622, and even now, festivals in the village of Tossignano in Emilia Romagna were held to commemorate the end of the famine through traditional polenta preparation and consumption (Malpezzi & Clements, 2005, p. 140). This is not the only festival held to honour the memory of Italian resilience or the cultural importance of the meal. In Monastero Bormida in the Piedmont, another polenta festival occurs on March 6, and in Ponti and Gorgonzola, festivals are held in late April (Malpezzi & Clements, 1992).

This now semi-festive food that provides an incredible sense of identity to a large community in the world is created by separating the associations of Old World poverty and instead focusing on the kinship systems and social structures that come with the food preparation and history.

The tools used in preparation of the dish, including large copper pots and wooden spoons, are similar to what has been used throughout history. In my family, we have a designated pot that is only to be used for making polenta. This practice is common throughout households and is a practice used to teach children about tradition and historical importance (Nonna's Kitchen, 1997). Even the process of serving polenta is a community and familial activity, where different cultures have different methods that are unique to one another. While many families serve polenta directly from the copper pot, to ensure it stays soft and warm, other families pour the polenta on a wooden board and let it solidify. Each method is unique but equally as important to a family's cultural history and linkage to Italian regions.

Regional Variation

As explained on Page 2, mass emigration of Italians into the Americas led to cultural food knowledge exchange between communities to create new dishes, while maintaining the social meanings of the original dish. A dish rooted in poverty is intended to be simple to prepare and combine with other dishes. Each region and country has different versions of the dish and different methods of presenting the dish for consumption. As polenta has only recently been cooked voluntarily, many versions of the dish are rooted in methods of disguising the dish for its main component, polenta (Nonna's Kitchen, 1997).

In Piedmont, Lombardy and Valle d'Aosta, for example, polenta is served simply, as a dense, bright yellow porridge-like substance. In direct contrast, in the South of Italy, in the valleys, and on Veneto's coast, polenta is served soft and light, with an ivory colour instead of a bright yellow colour (Malpezzi & Clements, 2005, p. 143). The variation in colour comes from the difference in corn species used in the different regions, creating different regional-specific versions of the same dish.

Even within Italy, variations of the dish can expand beyond simply the colour. In Bergamo, polenta is made much thicker and denser, as a way of ensuring it can be cut into thick strings or circles to be consumed as a solid, rather than as a porridge.

Between countries, variation exists as well. As a first-generation Canadian with family from Northern Italy, the methods used to consume polenta are much different than they are from my family in Argentina. I grew up eating polenta simply, with nothing in addition to the cornmeal-based dish; but my family in Argentina serve the dish the Pucio way, which is where the polenta is served with a large whole in the centre, allowing for a meaty sauce to fill the space and seep into the grain. Each region has access to different resources and ingredients, making the dish entirely based on regional preferences and availability. In Argentina, beef is much more prevalent and integral to the cuisine, as opposed to Italy, allowing for variation between areas based on the preferred meal.

Polenta Recipe

As polenta is a dish centred on local produce and available resources, the recipe I grew up eating was the recipe my father taught me from his hometown of Sicily, Italy. His family immigrated to Canada in the 1970s and kept using their original recipe despite the change in landscape and resource accessibility. I was taught to use my father's mother's polenta recipe, which uses corn flour instead of cornmeal, an adaptation to the Canadian landscape. This change yields a much lighter and fluffier polenta than cornmeal would. In my household, this recipe is served with my mother's smoortjie; a small South African stew that is put into a crater in the polenta, the Pucio method. The blend of the two cultures of flavours is what I grew up eating and learned to appreciate over time. The more I learn about my cultural history, the more I understand how growing up as a biracial and first-generation Canadian has impacted my relationship with food.

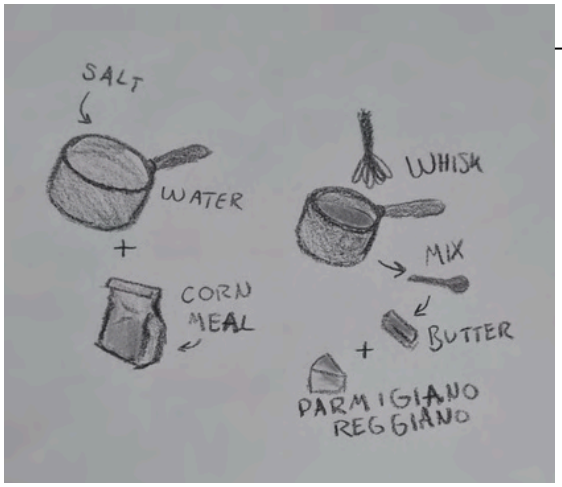


Figure 8: Drawing of ingredients and preparation technique, drawn by Eden Hunt

Ingredients

2 cups of bone broth
2 cups of corn flour/meal
1 tsp of salt
5 tbsp of butter
½ cup of parmigiano reggiano

Preparation - 1 hour

1. Bring 2 cups of bone broth to a rolling boil and add salt.
2. In small amounts, slowly add 2 cups of cornmeal or corn flour into the boiling broth.
3. Continuously whisk to incorporate the flour into the broth. Do not stop whisking.
4. Once it begins to thicken, switch to a wooden spoon and reduce the heat.
5. Once reached the intended consistency, fold in 5 tbsp of butter.
6. Turn off the heat and make sure the wooden spoon can stand up on its own in the centre of the pot.
7. Let it sit for 10 minutes before folding in Parmigiano-Reggiano and plating.
8. Serve with stew if desired.

References

Malpezzi, F. M., & Clements, W. M. (2005). The Gentrification of Polenta. Italian Americana, 23(2), 133–144. JSTOR. https://doi.org/10.2307/29777022

Dickie, J. (2008). Delizia!: the epic history of the Italians and their food. Free Press.

Rebora, G. (2001). Culture of the fork: A brief history of everyday food and haute cuisine in Europe (A. Sonnenfeld, Trans.). Columbia University Press.

Malpezzi. Frances M.. and William M. Clements. Italian-American Folklore. Little Rock: August House. 1992

Miramonti Corteno. (2019, August 23). Northern Italian Cuisine: Polenta Miramonti Corteno. https://www.miramonticorteno.com/blog/2019/8/22/northern-italian-cuisine-polenta#:~:text=%E2%80%9CThe%20origins%20of%20Polenta%E2%80%9D&text=It%20is%20hard%20to%20pinpoint,to%20many%20working%2Dclass%20families.

Sustainable Agriculture Research & Education Handbook 9. (n.d.). Plant Hardiness Zone Map. https://www.sare.org/wp-content/uploads/Managing-Cover-Crops-Profitably.pdf

D'Amico, A., Ciulla, G., Panno, D., & Ferrari, S. (2019). Building energy demand assessment through heating degree days: The importance of a climatic dataset. Applied Energy, 242, 1285–1306. https://doi.org/10.1016/j.apenergy.2019.03.167

Sideman B. Growing Sweet Corn. (2018, January 17). Extension. https://extension.unh.edu/resource/growing-sweet-corn-fact-sheet#:~:text=The%20ideal%20soil%20for%20corn,late%20July%20through%20mid%2DOctober.

Vinci, I., Obber, S., Ragazzi, F., Bini, C., Concheri, G., Adriano Garlato, Vitturi, A., Zaccone, C., & Paolo Giandon. (2024). The Development of Soil Science in Veneto. Padua Research Archive (University of Padua), 505–546. https://doi.org/10.1007/978-3-031-52744-9_27

topographic-map.com. (2025). Italy topographic map, elevation, terrain. Topographic Maps. https://en-gb.topographic-map.com/map-zj1h/Italy/

Migliavacca, M. (2024). Salt and pastoralism in the Protohistory of the Veneto. Quaternary Science Reviews, 334, 108694–108694. https://doi.org/10.1016/j.quascirev.2024.108694

Nova, R. A. (2023, October 29). Agri-food: corn in Italy down by 50 percent. Agenzia Nova. https://www.agenzianova.com/en/news/agroalimentare-in-calo-del-50-per-cento-il-mais-in-italia/?utm_source=chatgpt.com

Nonna's Kitchen: Recipes and Traditions form Italy's Grandmothers, New York: HarperCollins. 1997

The surprising secret history of one of Italy's favorite foods. (2024, February 5). CNN. https://www.cnn.com/travel/polenta-italy-americas

Figure References

Ferraro, S. (2019, November 18). Creamy Parmesan Polenta with Thyme - The Little Ferraro Kitchen. The Little Ferraro Kitchen. https://littleferrarokitchen.com/creamy-parmesan-polenta/

Fête de la polenta à Ponti, en 1932, Italie. (Photo by API/Gamma-Rapho via Getty Images)

https://www.stocksy.com/GiorgioMagini. (2015). "Freshly Harvested Wheat Fields in the Italian Countryside" by Stocksy Contributor "Giorgio Magini." Stocksy United; Stocksy. https://www.stocksy.com/photo/690192/freshly-harvested-wheat-fields-in-the-italian-countryside

DECEMBER
2025

Potato Gnocchi

Origin

Transition of Ingredients

Cultural Aspects

Recipe

Magazine

Introduction

Many regions claim to be the origin of gnocchi, while most associations are in northern Italy, gnocchi is found all throughout the peninsula in many diverse forms. The word gnocchi comes from "nocca, which means knuckles, or from the Lombard word knohha, which means knot (such as wood knot) or walnut—all words that imply the small, tight, rounded shape of gnocchi that we know today".[7] Potato gnocchi is a well-known and loved dish worldwide, and was introduced to Italian kitchens after Spanish explorers brought potatoes from South America.[7]

Geographic Origin of the Potato

The first potatoes originated in the Andes, specifically in southern Peru and northern Bolivia around Titicaca Lake.[8] Then, the potatoes were transported to the Canary Islands by the Spaniards. In terms of the introduction of the potato to "the Canary Islands, it could have taken place before the dates that have been published so far, probably between 1550 and 1560, which seems to agree with the dates of the first references to the potato by the Spaniards in South America".[8] Potatoes became a commodity and were subject to trade, which would explain their early passage through the Canary Islands.[8]

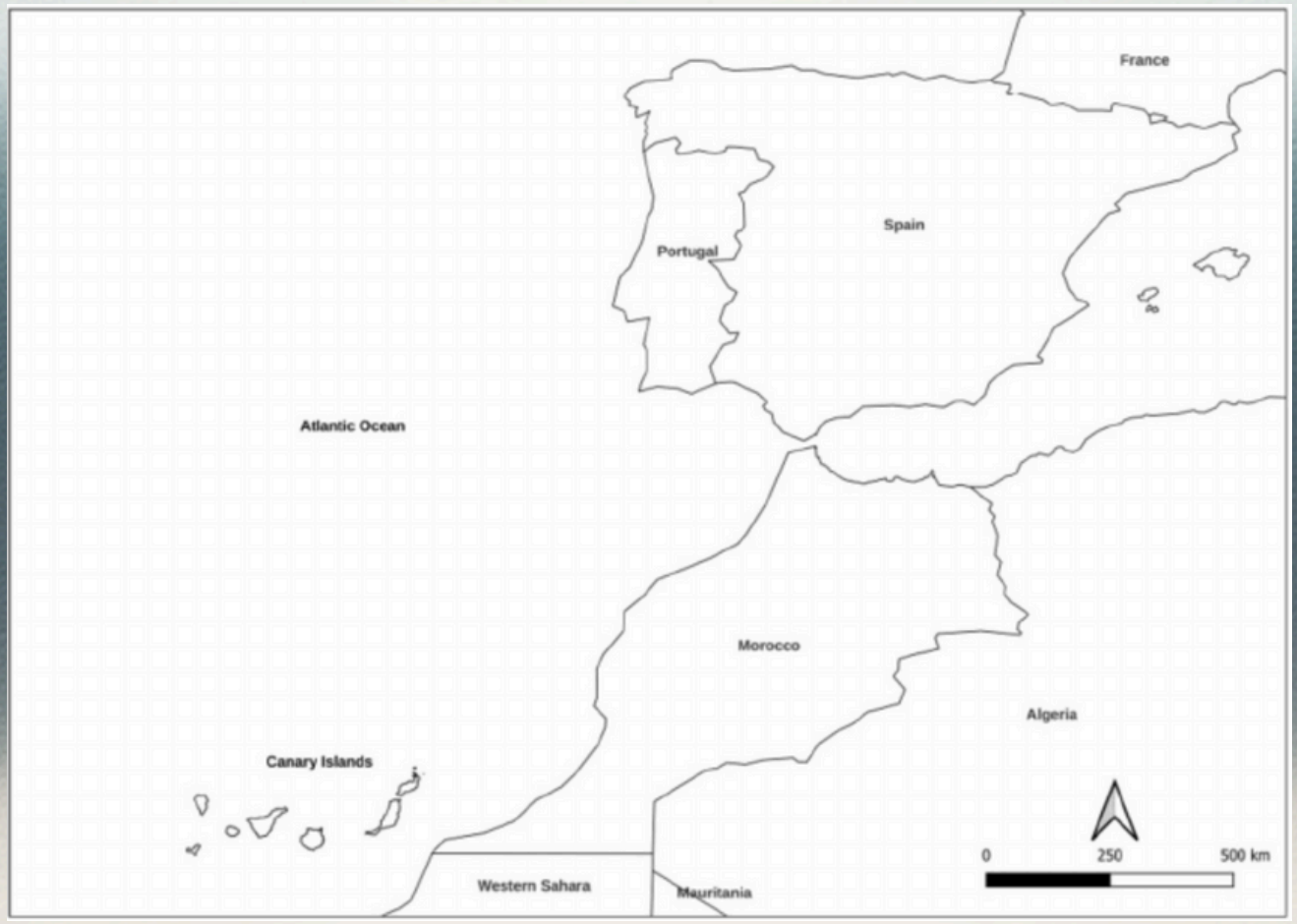


Figure 1. Geographical location of the Canary Islands[8]

Geographic Origin of the Flour (Wheat)

The domestication of wheat began with the dawn of human civilization. According to archaeological records wheat originated in southeast Turkey.[4] The first "progenitor species containing AA and BB subgenomes were discovered and these were hybridized followed by a doubling of chromosomes which resulted in tetraploid fertile wheat, T. turgidum (AABB)".[4] Then, "the hexaploid bread wheat evolved in the Fertile Crescent…After domestication, hexaploid wheat was cultivated and selected in diverse geographical regions for centuries which resulted in present-day cultivated bread wheat".[4] Einkorn wheat (Triticum monococcum) is considered the first domesticated hulled wheat, "the historical record shows that it was domesticated 12,000—c. 8,500 years ago in the Pre-Pottery Neolithic period".[4]

Figure 2. Routes showing the migration of wheat from the center of origin-Fertile Crescent-to other continents of the world. The green color indicates Fertile Crescent and the red lines indicate different known routes. Post-Domestication to Mendel's Era.[4]

4

Significant Evolutionary Transition of the Potato

The wild ancestor of the domesticated potato is toxic to human consumption, so people had to find ways to reduce or eliminate the toxins. Grinding the potatoes or manipulating crops to breed out toxins are two ways that were practiced. Archaeologists have "recovered microbotanical samples — potato starch remains — from grinding stones",[1] which shows this is a method our ancestors used to grind and manipulate the potatoes to make them edible. Findings also show that there may have been some artificial selection of growing the potatoes to make them not toxic. Archaeologists were examining a site to explore the process of hunter-gathers becoming sedentary and the agrarian people who cultivated plants and animals, and by the time this site was abandoned in 1300 B.C., the potato had been domesticated.[1] Which suggests that our ancestors were using artificial selection in their choice of breeding potatoes to make them non-toxic.

Significant Evolutionary Transition of Flour (Wheat)

It is difficult to determine the exact date of the earliest agricultural activities of wheat but according to Kislev (1984), the data on wheat and barley husbandry indicate three major phases: (1) the "agrotechnical revolution",(2) the "domestication revolution", and (3) the expansion of agriculture.[3]

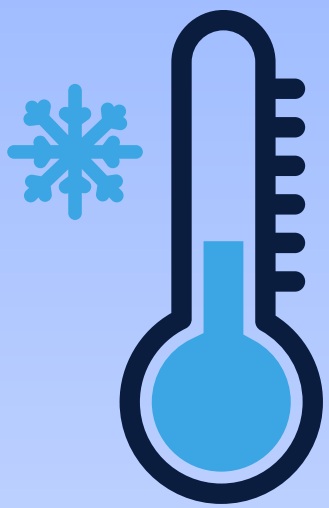
The “agrotechnical phase was developed mainly during the Natufian period (13,000-10,300 BP)”.[3] The Natufians had permanent and semi-permanent settlements that were based on hunting and gathering, and their source of nutrition was mainly based on hunting and the intensive collection of seeds. Therefore, they could settle and increase their population without engaging in agricultural practices. During this period “the Natufians collected the large-grained wild grasses and legumes and became acquainted with their biology - a prerequisite for their domestication”.[3] The initial attempts at plant domestication may have taken place during this period.

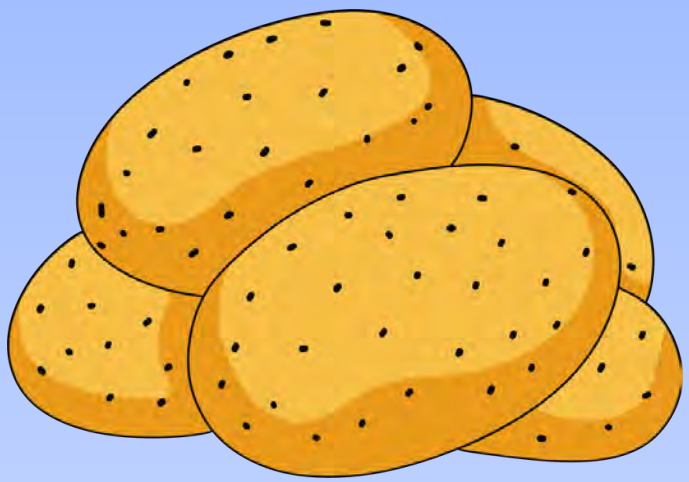
The "domestication revolution" (10,300-7,500 BP) can be divided into two sub-phases: cultivation of wild forms of cereals, and cultivation of domesticated forms. The transition from the Natufian to the Neolithic culture happened in the Jordan Valley, the Damascus basin, and the Middle Euphrates, and early farmers were involved both in plant cultivation and in hunting.[3] There was an invention of cultivated fields by the early Neolithic people of the Levant and the development of agricultural practices associated with field preparation and sowing, as well as the selection of seeds to be sown, comprise the initial stages in agricultural technology.[3] They started to burn unwanted grass to clear space for sowing wheat or barley, and they transformed forests into cultivated fields of annual grasses.[3] The selection of grains for the next sowing season was when the genetic structure of cultivated wheats started to be shaped.[3] The samples of wheat become subject to different selection pressures affecting their sibs that remained in the wild stands.[3]

The second sub-phase of the "domestication revolution" is the cultivation of domesticated forms, which probably started several hundred years after the beginning of cereal cultivation. In the cultivated forms of wheat “the ripe ear no longer disarticulates into single spikelets as easily as in the wild forms, thus allowing the harvesting of intact spikes without the need to collect single spikelets”.[3] This happened nearly 1000 years after the initial cultivation of wild cereals. The most characteristic feature of domesticated cereals is the dependency on man for sowing and once the seed-dispersal mechanism was lost, the genetic donor to the next generation became solely determined by man.[3] This selection and raising domesticated wheat could have only occurred after ploughing and sowing had been practiced.[3] From this time onward the transition of wild cultivated wheat forms into domesticated wheat was very rapid.

The third phase of the agricultural revolution is the expansion of agriculture. This went alongside the rapid and radical change in the economic organization of the Near East and the surrounding regions.[3] The cereal culture spread from the western flank of the Fertile Crescent to other parts of this region, and from there to central Asia through northern Iran, to southeastern Europe through Transcaucasia, to Europe and North Africa through southwest Anatolia, and to Egypt through Israel and Jordan.[3] The expansion of agriculture was mainly due to the spread of farmers to new territories. With the increase of agricultural activities the early Neolithic communities became largely dependent on the products of cultivation, and it is a necessary prerequisite for the development of human civilization.[3]

How the bio-geo-physical attributes of Italy contributed to shape potato gnocchi





The origin of potato gnocchi was in northern Italy.[5] The climate in northern Italy is cooler, which is well suited for growing potatoes. This means that potatoes are more accessible than the grain needed for traditional pasta. This accessibility of potatoes in northern Italy led to the development of potato gnocchi as a filling and inexpensive dish.

How cultural practices in its place of origin shape the dish

According to the Roman cuisine calendar in many traditional taverns diners will have gnocchi on the menu only on Thursdays, both in classic version and in the regional version made with semolina.[2] It comes from the traditional saying "*Thursday gnocchi, Friday fish or chickpeas and cod, Saturday tripe".* This practice was a way to get a substantial and hearty meal before Friday, typically a day in Catholic tradition where they fast from meat, and typically eat fish dishes. Gnocchi was seen as a perfect filling meal prior to this day.

A popular dish in Tuscanity is called gnudi and it has been highlighted in a special feast and marking a time of year. In the former days, "gnudi marked the beginning of spring, the ideal period for ricotta, especially in Papiano, where they were (and still are today) prepared for the feast of Santa Caterina: cooked in large copper pots, the gnocchi make the cooking water greenish in colour, which over time has given rise to the popular saying *"if in Stia the water streams down green it means that in Papiano there is a party""* .[2] Salimbene da Parma in the late 13th century reports having gnudi during the feast of Santa Chiara.[2]

In Piacenza there is a gnocchi variant called Pisarei, and it uses a specific technique that involves pressing with your finger on the dough. In the past, Pisarei was something a mother-in-law would use to see if the future daughter-in-law was suitable for their son.[2] If the woman's right thumb was callused it meant she was a good woman of the home and knew how to make Pisarei well.[2]

Variants or adaptations of gnocchi that reflect other places and/or cultures

Every region in Italy has its own variation of gnocchi with varying sauce or serving style. For example, in "Piedmont or Lombardy, you might find potato gnocchi tossed in a simple dressing of butter and Parmesan, or in a creamy, cheesy sauce passed under a grill to brown the top before serving" [7]; and in "Verona, potato gnocchi is traditionally served in a tomato sauce—it's a dish associated with Carnival that goes as far back as the 1500s".[7]

Variants or adaptations of gnocchi that reflect other places and/or cultures continued

Canederli is a gnocchi made of stale bread, flour, eggs, speck, parsley, and Parmigiano. It is also known by the Germanic name knödel and is present in almost all of northern Italy, from Friuli Venezia Giulia to the Alpine areas of Lombardy and Veneto.[2]

Pumpkin gnocchi is another variation of gnocchi, and it has not always been present in Italian cuisine. Before potatoes were imported into Europe, pumpkin dominated the fillings of fresh pasta. In Friuli Venezia Giulia and Piedmont pumpkins became part of the dough, together with eggs and flour.[2] It was also very popular in the Aosta Valley where they baked au gratin and covered it with grated fontina.[2]

Gnudi is one of the most popular pasta courses in Tuscan cuisine, and it is gnocchi made with "flour, spinach, chard or other vegetables, ricotta, grated cheese, spices and sometimes even eggs, dredged in flour and boiled in water".[2] Gnudi, also known as malfatti or ravioli gnudi (naked), and it is "widespread above all in the Val di Chiana and Casentino, in those areas that once had to face greater economic difficulties than the rest of the territory".[2]

Spätzle is very popular in lower Germany, Switzerland, France, Tyrol and Trentino and it is usually served with game or as a soup.[2] Spätzle is a mixture of wheat flour, buckwheat, water and eggs, which is dropped into the broth or salted water with a special tool, which gives the typical shape to the gnocchi.[2] There is also a spinach based version called spinatspäztle which is seasoned with butter, cheese, and speck.[2] An ancestor of spätzle are bisi di pasta and maneghi de Zuc.

Malfattini is small egg gnocchi seasoned with pea sauce or in a broth mixed in a soup with beans.[2] Gramolatura, peasant families tried making malfattini because in Romagna hemp was the most widespread of crops.[2] Pellegrino Artusi wrote:
"The simplest malfattini are made of flour. Mix it with the eggs and knead it with your hands on the pastry board to form a very firm bread: cut it into slices half a finger thick and leave them exposed to the air to dry. Chop them with the half-moon slicer until they are reduced to minute pieces equal to half of a grain of rice, passing them through a small tray to obtain the same, or grate the whole loaf; but do not imitate those who leave them as big as the beaks of sparrows if you do not want them to be difficult for you to digest; indeed, for this reason, instead of flour, you can make simple breadcrumbs, or making them graceful with a pinch of Parmigiano and the smell of spices".[2]

A final variation of gnocchi is Pisarei, this is the typical dish of the Emilia Present tradition in the province of Piacenza.[2] Pisarei are "rough-textured gnocchi that are normally eaten in a soup with beans (pisarei e fasò)".[2] Pisarei is made with a mixture of "flour, breadcrumbs and water, from which spaghetti noodles are obtained, and which are then cut into small pieces then pressed down with a finger".[2]

Temporal Evolution of Potato Gnocchi

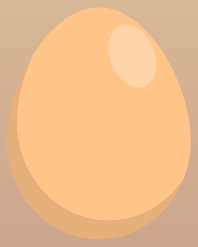
The usage of potato in Italian cuisine is a relatively recent development, since potatoes were only introduced to Europe in the 16th century[5]. Prior to this, a rudimentary version of gnocchi was made from ingredients like zucca (meaning squash) and breadcrumbs, known as pangrattato in the native tongue.[5] These ingredients were common in the diet of peasants, and their sum was both filling and inexpensive to produce.[5] This explains the use of these ingredients before the coming of potatoes.

Recipe

Homemade potato gnocchi recipe[6] (best served tossed in a fresh tomato basil sauce):

Potato gnocchi ingredients:

- Potatoes
- Flour
- Salt
- Egg

Steps:

1. Boil unpeeled potatoes until tender, once tender remove and peel potato skin.
2. Mash the potatoes.
3. On the a flat surface mix flour and salt well, then make a space in the center to add the mashed potatoes and egg, mix together to form a dough.
4. Flour the surface, and roll the dough and cut into approximately 2cm pieces, then slide a fork and sequin the dough slightly
5. Sprinkle with flour so they do not stick, and let them rest for 20 minutes before boiling
6. When boiling the gnocchi will float to the top when they are ready

References

[1] Anderson, L. (2016, November 28). High-Altitude Archaeology Uncovers Earliest Evidence of Potato Consumption. Newsroom. https://news.ucmerced.edu/news/2016/high-altitude-archaeology-uncovers-earliest-evidence-potato-consumption

[2] Becchi, M. (2021, March 2). Gnocchi: History and Classic Italian recipes. Gambero Rosso. https://www.gamberorossointernational.com/news/food-news/gnocchi-history-and-classic-italian-recipes-to-make-at-home/

[3] Feldman, Moshe & Bonjean, Alain & Angus, W. (2001). The Origin of Cultivated Wheat. In the Wheat Book. 1-56.

[4] Gohar, S., Sajjad, M., Zulfiqar, S., Liu, J., Wu, J., & Rahman, M. (2022, October 2). Domestication of newly evolved hexaploid wheat - a journey of wild grass to cultivated wheat. Frontiers. https://doi.org/10.3389/fgene.2022.1022931

[5] Mitchell, J. (2022, October 3). Everything You Need to Know About Gnocchi. Pasta Evangelists. https://pastaevangelists.com/blogs/blog/what-is-gnocchi

[6] Molloy, R. (2023, January 1). Homemade Potato Gnocchi. An Italian in my Kitchen. https://anitalianinmykitchen.com/gnocchi/

[7] Pasta's Predecessor: The History of Gnocchi. Saveur. (2015, March 18). https://www.saveur.com/article/food/history-of-gnocchi/

[8] Ríos Mesa, D., Devaux, A., & Ruiz De Galarreta, J. I. (2023). Ancient potato varieties of the Canary Islands: Their history, diversity and origin of the potato in Europe. Potato Research, 67, 1–32. https://doi.org/10.1007/s11540-023-09672-2

References

[1] Anderson, L. (2016, November 28). *High-Altitude Archaeology Uncovers Earliest Evidence of Potato Consumption*. Newsroom. https://news.ucmerced.edu/news/2016/high-altitude-archaeology-uncovers-earliest-evidence-potato-consumption

[2] Becchi, M. (2021, March 2). *Gnocchi: History and Classic Italian recipes*. Gambero Rosso. https://www.gamberorossointernational.com/news/food-news/gnocchi-history-and-classic-italian-recipes-to-make-at-home/

[3] Feldman, Moshe & Bonjean, Alain & Angus, W. (2001). *The Origin of Cultivated Wheat*. In the Wheat Book. 1-56.

[4] Gohar, S., Sajjad, M., Zulfiqar, S., Liu, J., Wu, J., & Rahman, M. (2022, October 2). *Domestication of newly evolved hexaploid wheat - a journey of wild grass to cultivated wheat*. Frontiers. https://doi.org/10.3389/fgene.2022.1022931

[5] Mitchell, J. (2022, October 3). *Everything You Need to Know About Gnocchi*. Pasta Evangelists. https://pastaevangelists.com/blogs/blog/what-is-gnocchi

[6] Molloy, R. (2023, January 1). *Homemade Potato Gnocchi*. An Italian in my Kitchen. https://anitalianinmykitchen.com/gnocchi/

[7] *Pasta's Predecessor: The History of Gnocchi*. Saveur. (2015, March 18). https://www.saveur.com/article/food/history-of-gnocchi/

[8] Ríos Mesa, D., Devaux, A., & Ruiz De Galarreta, J. I. (2023). *Ancient potato varieties of the Canary Islands: Their history, diversity and origin of the potato in Europe*. Potato Research, 67, 1–32. https://doi.org/10.1007/s11540-023-09672-2

My references with a hanging indent**

Risotto

A Story of Globalization and Flavour Cultivation

Starting With Rice

Today, rice is one the top food crops globally, feeding millions of people daily.[12] Rice has a long history but just how did it end up in Italy, and in this dish? Rice has been found in archaeological sites dating back to 8000 BCE[12]. Other archaeological sites show evidence that human rice consumption may have started even earlier than that, between 11,000 and 12,000BCE[12]. It is also hard to determine exactly when the domestication of rice began and what exactly would have been initially cultivated. Rice made its way to Europe, arriving in Greece around the fourth century[9]. Rice is said to have arrived in Italy sometime in the fourteenth century, having been brought to Sicily and Spain by Arabs on trade routes[9]. However, the first solid documentation of rice in Italy not until the fifteenth century, with evidence of the first successful cultivation of rice in Italy around the 1460s[12].

Rice is not as much of a staple food in Europe as it is in other areas of the world although it has increased in popularity over time due to immigration and diversification of European diets[5].

In the twenty-first century, rice cultivatation in the EU is mostly in the Mediterranean. Italy and Spain are the top producing countries for rice in the EU, being responsible for more than 80% of European rice production[5]. In and around Italy there has been more success with growing short to medium grain rice as opposed to long grain rice and today that is the dominant type of rice grown in Italy. There was success cultivating rice in the Po Valley in the North[8]. The humidity of the Mediterranean climate also contributed to success with short-medium grain rice[8]

Rice and Risotto

In Southern Italy, rice is not an ingredient in many dishes, only found in a select few regional dishes like the arancini of Sicily, the sartù of Naples, and the tialla of Puglia; however, in the North, risotto has a longstanding history[6].

For risotto, the right rice is crucial. It is necessary that the rice being used is both able to absorb liquid and release starch while cooking[8]. Traditionally, recipes call for arborio rice, a short grain rice named after an Italian town by the same name[8]. Short-grain rices like arborio are high in amylopectin and low in amylose which gives it the qualities desired for making risotto[8]. Carnaroli is another type of rice suitable for making risotto. Carnaroli is a

medium-grain rice with a higher starch content[8]. While both of these rices are perfectly suitable for making risotto, arborio is said to be more forgiving to cook with while carnaroli has also been described as more of a premium[8].

Risotto

Background

Risotto is one of three main starches in Italian cuisine[1]. Risotto is a dish of rice that is creamy on the outside and al dente on the inside. It is prepared through a cooking technique called *soffritto*[7]. This process involves sauteing vegetables, in this case onions, in fat until they become translucent before adding rice and cooking slowly until al dente[7]. By cooking the onions in this way it creates a flavourful base for the dish. There is not a clear concensus of when risotto originated, but from what I could find, the first recipe that depicts cooking risotto the way we do today was in 1829[8] in a book titled *Nuovo cuoco milanese economico* which translates to New Economic Milanese Chef. Before this point recipes always included boiled rice[8]. Traditionally, risotto, like many traditional Italian foods, was a simple dish made from just a few staple ingredients although the dish has evolved far beyond that[7].

Variations

There are several different versions of this dish across different regions in Italy and now around the world. One of the most popular variations of the dish is Risotto Milanese which is made with saffron, parmesan, and butter or bone marrow[7]. It is one of the most famous dishes to come out of Milan. Legend has it that this variation of the dish was born out of a “prank” in which a stain-glass colourist’s assistant snuck saffron into the colourist’s risotto to make it yellow[8]. There are other regional differences in recipes; another example is risotto alla pescatora which is made with the addition of seafood like shrimp, scallops, and squid[7]. This version of this dish is more popular around coastal regions of Italy. Additionally, recipes from southern, more coastal regions often contain ingredients like olives and tomatoes as well, reflecting a more Mediterranean diet[4]. In contrast, risotto in inland regions may contain mushrooms or popular regional cheeses like ricotta[4].

Overall, recipes in the north appear to be more hearty and rich, while recipes in the south tend to include lighter, fresh ingredients. Differences in recipes between the north and south or coastal and inland regions highlight differences in regional geography and agricultural variation in different regions of Italy. Other variations of risotto recipes include the addition of meats, vegetables, and herbs as well as variation in the types of cheese, broth, wine, and rice that are used.

Figure 1.

Italian Cuisine

Further Background

Italy is made up of Twenty different, distinct regions each home to their own unique culinary cultures[1]. As is evident from risotto, classic Italian cuisine consists of simple dishes, typically consisting of just a few quality local ingredients[1]. The roots of Italian culinary tradition lie within the Italian countryside[11]. Farmers who managed the land helped to shape the cuisine through the crops on the landscape[11].

Political Factors

In addition to geographic variation, there have been some non-physical factors that have shaped Italian cuisine. Italian cuisine has largely been shaped by Italy's history of political fragmentation[11]. It was not until 1870 that Italy was unified as a country; up until that point Italy was divided up and under the control of foreign monarchs[11]. The only shared, permanent union at the time was through the papacy, which is the authority of the Pope in Roman Catholicism[11]. Some culinary traditions came from this with some dishes being developed for religious feasts or celebrations; however, these foods differed from what was generally being eaten at the time[11]. The many dutchies, principalities, city-states, republics, and territories throughout modern Italy developed their own unique culinary customs due to the ununified nature of the landscape[11]. The different culinary practices that emerged left a long-lasting impact on Italian cuisine.

Beyond Italy

Outside of Italy, Italian Cuisine has seen huge expansion and subsequent changes. With increased immigration Italian cuisine has been adapted to fit ingredients available in different areas of the world, revolutionizing dishes[1]. Italian immigrants attempted to reinvent their recipes to fit their new conditions[1]. This is something that is very observable in the US. Dishes like spaghetti and meatballs and chicken parmesan are a couple examples of this as they both take components of classic Italian cuisine and change them to create new dishes[1]. This also highlights distinctions that can be made between authentic Italian food and adapted recipes like the Italian-American example[1]. Not so surprisingly, This reflects what we consider "Italian food" here in Canada too. In actuality, many dishes we might think of as classic have been repeatedly modified to get to their current form.

Cheese

Cheese is an ingredient in most risotto recipes, added at the end of cooking, adding even more flavour and creaminess. Typically, you would want to use a hard cheese; Parmigiano Reggiano is probably the most obvious and traditional choice, but other hard cheeses like romano or asiago can also be used[8]. Some more untraditional recipes even substitute in cheddar or blue cheese.

Figure 2.

Parmigiano Reggiano

Parmigiano Reggiano is dates back to the thirteenth century with Benedictine monks[3]. It originated around Parma and became well known in the Italian countryside[3]. The Voluntary Consortium of Typical Grana was started as the first formal organization to protect an Italian cheese in 1934[3]. There have been attempts to replicate Parmigiano Reggiano, eliminating steps of the process. This has led to generic "parmesan"[1]. Parmigiano Reggiano is a key ingredient and an example of a regionally specific and highly sought after product. It is highly regulated so, a cheese is only allowed to be called Parmigiano Reggiano if it comes from Parma, Bologna, Mantua, Modena, or Emilia Romagna and if it has passed rigorous testing[1].

Parmigiano Reggiano is produced with raw milk composed of half skimmed evening milk and half whole morning milk[2]. A natural whey starter is added to make the pH slightly more acidic and kickstart the fermentation process[2]. Calf rennet powder is added which causes the milk to coagulate[2]. The curd is then cooked at increasing temperatures[2]. It then remains covered by the whey for 40-60 minutes before being moved to a wooden mould[2]. It is routinely turned to promote full drainage over three days, during it is kept at 20° C[2]. Finally the cheese is salted in brine for 20-24 days before being left to ripen for 12-24 months[2].

More on rennet--Calf rennet is an enzyme from the fourth stomach of calves and it is used in the production of various cheeses[13]. Rennet contains two enzymes: chymosin and pepsin[13]. It is a natural and GMO-free way to preserve the cheese in addition to its role in aiding in coagulation[13]. Vegetable and plant rennets are used for milk production in some cultures although it is said that these alternatives can produce an undesirable flavour[13]. Additionally, a genetically modified bacterium was developed through fermentation to produce the rennet enzymes[13]. This process is called fermentation produced chymosin[13]. This process cannot produce pepsin though, so it cannot necessarily be used for aging in the same way that naturally derived rennet can[13].

Broth/Stock

Another key ingredient for making risotto is a stock or broth. Stock and broth are different, with stock being produced from bones and broth including meat traditionally, but they can be used interchangeably here[10]. Risotto is cooked most often with chicken or veggie broth. These broths are most common because they are more neutral in flavour[8], so they add rich flavour into the rice without being too overwhelming. Stirring the risotto with a broth or stock is also what helps to make it creamy[8]. The method of cooking the risotto with broth is part of what makes this dish unique. If you wish to make your broth/stock from scratch you will need vegetables (scraps or chopped whole veggies), bones if you want to make an animal-based broth, as well as meat for additional flavour if you wish[10]. The broth would then be simmered on the stovetop for hours until the flavours are released into the liquid; tasting your veggies to see if they have lost their flavour is a way to check if the broth is done[10].

This recipe is for the version of the dish that I grew up eating at family dinners. It's a rather patriotic version in which the risotto is divided into three differently coloured sections and arranged to look like the Italian flag. We would occasionally just do one flavour for the entire batch which is a much easier option, perhaps just slightly less fun.

My grandfather grew up in the Italian province of Imperia in a comune called Arma Di Taggia. This is a coastal area of Italy near the French boarder. It is likely that he may have grown up eating a version of risotto simlar to the this with the tomatoes, perhaps with the inclusion of some kind of seafood or olives as well. I'll always remember him insisting that we were stirring the risotto in the wrong direction. I still do not know where he got this sentiment from.

This is a recipe he liked to make and shared with my family. It looks like this recipe was photocopied from a cookbook so I unfourtunately have not been able to find the original source.

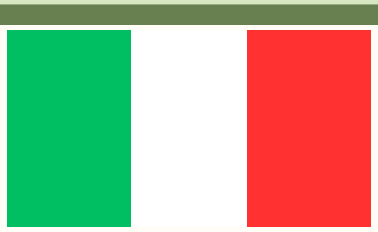


Figure 3.

Although this recipe definitely strays from the original version of risotto with its presentation and the addition of a couple ingredients, the base sticks pretty closely to earlier iterations. The base of this recipe sticks to the same simple ingredients: rice, fat (butter), and onion. This simple base recipe proves to be a good starting point. It is easily adaptable making it easy to add any flavours or style points you may wish.

The Recipe:

Tricolour Risotto

Ingredients:

- **8 cups of chicken both (or veggie broth)**
- **6 tablespoons of butter**
- **1 large onion (finely chopped)**
- **3 cups arborio rice**
- **1 cup dry white wine**
- **1 cup fresh grated Parmigiano Reggiano**
- **3 tablespoons chopped parsley**
- **1 tablespoon fresh basil**
- **1 tablespoon tomato paste**
- **Salt to taste**
- **As much additional Parmigiano as your heart desires**

Preparation:

1. **Heat broth in medium saucepan**
2. **Melt 3 Tbsp butter in separate saucepan**
3. **Add onion once butter foams, sautee over medium heat until pale yellow**
4. **Add rice, mix well**
5. **Once rice is coated, add wine and stir until evaporated**
6. **Add broth little by little, continue stirring and adding more broth as it absorbs for 10 mins**
7. **Divide into 3 equal parts, in separate saucepans**
8. **Add parsley and basil to one pan, tomato paste to another, and nothing in the last**
9. **Continue cooking and stirring, add broth as needed**
10. **After 5-10 mins, once rice is al dente, add 1 Tbsp butter and ⅓ cup parmigiano to each and mix**
11. **Season with salt and plate with white rice in the middle and red and white on either side.**
12. **Serve topped with more parmigiano**

Serves 6-8

Works Cited

1. Auguste Escoffier School of Culinary Arts. (2024, December 31). A guide to Italian cuisine: Its history, flavors, and influence on American cooking. Auguste Escoffier School of Culinary Art. https://www.escoffier.edu/blog/world-food-drink/a-guide-to-italian-cuisine/
2. Coppola, R., Nanni, M., Iorizzo, M., Sorrentino, A., Sorrentino, E., Chiavari, C., & Grazia, L. (2000). Microbiological characteristics of Parmigiano Reggiano cheese during the cheesemaking and the first months of the ripening. Le Lait, 80(5), 479–490. https://doi.org/10.1051/lait:2000139
3. De Roest, K., & Menghi, A. (2000). Reconsidering 'traditional' food: The case of Parmigiano Reggiano Cheese. Sociologia Ruralis, 40(4), 439–451. https://doi.org/10.1111/1467-9523.00159
4. Exploring regional variations of risotto across Italy. bocca.co.za . (2025, March 12). https://bocca.co.za/exploring-regional-variations-of-risotto-across-italy/
5. Ferrero, A., & Tinarelli, A. (2008). Rice cultivation in the E.U. ecological conditions and agronomical practices. Pesticide Risk Assessment in Rice Paddies, 1–24. https://doi.org/10.1016/b978-044453087-5.50002-3
6. Irving, J. (2024, March 25). The story behind risotto. Gourmet Traveller. https://www.gourmettraveller.com.au/dining-out/food-news/the-story-behind-risotto-2838/
7. Its all about risotto. JOÉ'S CAFÉ Dubai. (2025, February 6). https://www.joescafedubai.com/joes-cafe-blog/its-all-about-risotto/
8. Kirkpatrick, J. (n.d.). All about risotto: The history & fundamentals of a favorite Italian dish. https://www.cuisineathome.com/articles/all-about-risotto/
9. Lee, J. (2025, September 27). The wonderful journey of italian rice. Jennifer Angela Lee / Exploring History and Culture Through Food. https://jenniferangelalee.com/food-history-blog/2018/9/27/italianricehistory
10. Mediocre Chef. (2024, October 28). Unlock flavor with Stocks & Broths: Here's everything you need to know. Mediocre Chef. https://www.mediocrechef.com/blog/how-to-make-stocks-broths
11. Myhrvold , N. (n.d.). Cooking - cuisine, class, climate, politics | britannica. Britannica. https://www.britannica.com/topic/cooking/Cuisines-driven-by-class-climate-and-politics
12. Sweeney, M., & McCouch, S. (2007). The complex history of the domestication of rice. Annals of Botany, 100(5), 951–957. https://doi.org/10.1093/aob/mcm128
13. Wandt, A. (n.d.). Demystifying rennet, a key ingredient in cheesemaking. Shelburne Farms. https://shelburnefarms.org/about/news-and-stories/demystifying-rennet-key-ingredient-cheesemaking

Figure 1. : https://www.delish.com/cooking/recipe-ideas/a29786303/risotto-rice-recipe/
Figure 2. : https://www.cheeseprofessor.com/blog/parmigiano-reggiano
Figure 3. : made by me in canva

Shepherd's Pie

Dissecting a British classic

Figure 1: My family's version of shepherd's pie, using lentils.

The standard shepherd's pie is a hearty lamb and vegetable casserole layered within mashed potatoes. Since its inception, it has evolved into an international staple, with variations spanning from its homeland in the UK, to mainland Europe, Canada, and beyond. Its origins, however, hearken back to a time of British economic and agricultural instability, aiming to solve one of the kitchen's oldest problems: how to efficiently—and tastily—use leftovers.[1]

Origins and Evolution

Shepherd's pie recipes first emerged around the 1870s.[2] The traditional version employs top and bottom layers of mash with a middle of lamb or mutton[1] and vegetables—often carrots and/or onions. It is occasionally conflated with cottage pie, which uses beef instead.[1] This dish likely has an even longer history, and it is still reflected in many recipes today.

Basic and accessible ingredients are indicative of a time of agricultural anxiety, with fluctuations in the production of both meat and crops from the late Middle Ages to the nineteenth century creating complicated economic and environmental dynamics in the UK—especially for those of lower social classes.[3-5] Indeed, the rise of the dish during the last quarter of the nineteenth century is likely far from coincidental: beginning in the early 1870s and lasting roughly 30 years, Britain endured a significant agricultural depression, resulting in increased rates of poverty and a need to be frugal with food.[5,6]

Figure 2: the lentils used by my family in our shepherd's pie, farmed in Salmon Arm, BC, and sold in Metchosin.

The invention of the meat mincer also impacted the growing favour of shepherd's pie. The tool was invented close to the outset of the dish and was useful for quickly transforming leftover meat into a more palatable version for reuse.[1]

Today, shepherd's pie has been broadened far beyond the UK and the use of lamb, with beef, in fact, being used more often[7]—hence the common mix-up with cottage pie. Other ingredients used, either as the main protein or as additions to the casserole, include chicken, fish,[7] turkey, chorizo, bacon,[8] and lentils (Figures 1 and 2). Recipes reflective of a variety of cultures are rampant, from the French *hachis Parmentier*,[1,9] vegetarian—like my family's—and Quebecois interpretations.

A (Not so) Fun Fact

As a means of recycling leftovers, shepherd's pie was never really considered prestigious, but it can still be made with quality ingredients. However, "sometimes a dreadful travesty of it is served."[1] Cheap school and prison versions occasionally weaponize the mincing machine, creating a rubbery mixture of store-bought processed mince tough enough as to be "'capable of being fired from a gun.'"[1] The rise of instant mash has not helped either.[2]

Sheep: The Original Meat

The word "shepherd" instantly signals the importance of lamb, but the history of sheep farming in the UK extends well beyond meat. Back in Tudor and Stuart times, sheep farming was largely centred on wool.[3] Eventually, due to growing industrial uncertainties and a rising population in need of feeding, the virtue of sheep meat came into focus: selective breeding for fat, meaty animals took off, with owners of large estates purchasing hundreds of young animals at once for growing and shipping to London markets.[3] This process aligned well with the rise of capitalism[10]—the wealthy partaking in most of the economically-beneficial action.

The acceleration of enclosure from the 15th century onward also had significant implications for the wool, and later, meat, markets. Separated flocks allowed for isolated selection of desirable traits[3]—some for wool texture, meat quality, speed of growth to maximize profit, etc.—and soon, the UK developed distinct sheep breeds. Today, there are more than 60.[11] Because of centuries of selected traits and the varied landscapes that the sheep live and feed on, their meat can have different flavours. Sheep reared in mountainous regions of the British Isles (see Figure 2), for instance, have long been praised for their sweetness,[12] whereas the hardy grass-fed Dutch Spotted Sheep (originally from the Netherlands) has a "unique" lean taste.[11]

"The shepherd's pie of Scotland is too farinaceous—potatoes within and paste without" -Kettner's Book of the Table, 1877[13]

An older documented Scottish version of shepherd's pie used potatoes as well as an extra layer of wheat-flour pastry shell on top made to contain the veggies and meat.[2,7] Practicality and flavour were clearly at odds in this case.

In the mid 19th century, there was further shift in agricultural markets. Rapid increase in wages led to more disposable income for a greater percentage of England's population, and as a result, there became more demand for tastier, higher-quality protein.[6] Even despite the decimation of sheep flocks due to disease outbreaks around 1880, the production of meat continued to grow for around the next decade—but this relative prosperity did not last.[6]

Hefting: Geographic Influence on Sheep Farming

In Scotland and Northern England, sheep farming is heavily influenced by terrestrial, cultural, and biological factors. The rugged highland landscape has historically made it difficult to build enclosure fencing, leading to the creation of the "hefting" system.[14] Without physical boundaries, flocks rely on natural instincts passed down through centuries of evolution in order to stick to a set territory.[14] As Gray (2014) argues, the dynamics between the landscape, the sheep, and their herders have created a mutual connection between animal and human through an "embodied sense of place" in these regions.[14] The Swaledale (Figure 3) is a commonly hefted breed.

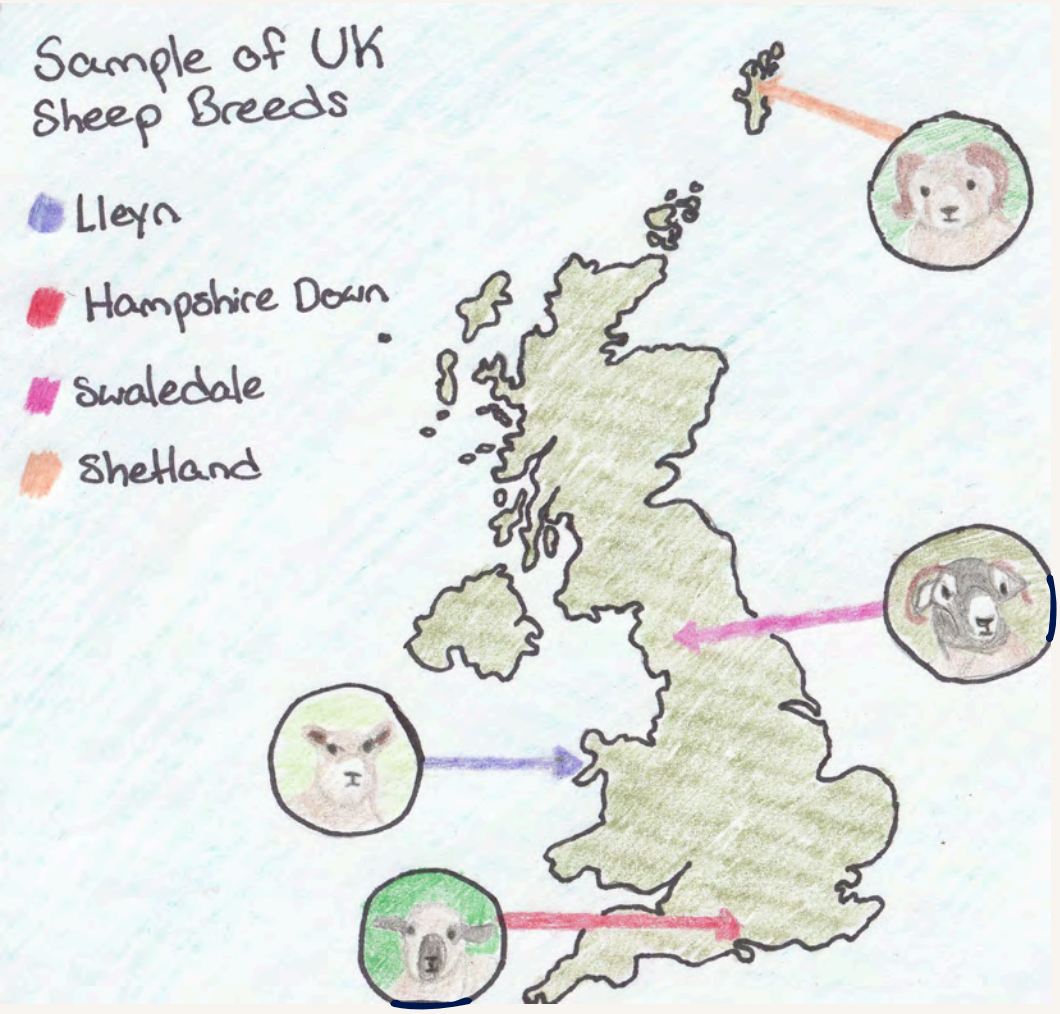


Figure 3: A small sample of different sheep breeds found across the UK. The mountainous Lleyn in Wales[12] and the Shetland from the islands of the same name[11] have sweet-tasting meat, the Hampshire Down is one of the most prolific on the lamb market,[11] and the Swaledale is a common hefting sheep.[15]

Did You Know?

There are 3 different kinds of sheep meat: lamb, from animals butchered at less than a year old; hogget, from animals one to two years old; and mutton, from animals over two years old.[16] However, most people just distinguish between lamb and mutton. The flavour profiles of each meat also vary; generally speaking, flavour "increases in complexity and depth with the age of the animal."[17] These differences, combined with the diversity in taste from different breeds, highlight the sheer variety of potential flavour for this dish from just one ingredient.

A Different Great Depression

Shepherd's pie is very much a product of economic fluctuation. The state of British agricultural productivity was up and down across much of the 18th and 19th centuries, with booms in technology and efficiency from the Industrial Revolution allowing for more meat consumption than ever before.[4] At the same time, however, class divisions, the ousting of smallhold farmers in favour of wealthy estates and companies, and increased food prices meant that the poor often suffered.[5]

Despite a wave of prosperity around the 1850s-60s, adversity soon returned with the Agricultural Depression in the last quarter of the century.[5,6] Along with the ballooning of internationally-imported food as a trade currency for widely-desired British manufactured products[5] came a rise and fall in meat and grain prices respectively in order to keep up with demand. Significant economic turmoil ensued, especially for the corn growers and those lower down the social ladder.[6]

Not coincidentally, it is from this context that the first shepherd's pie recipes emerged. The need to conserve energy-dense food and extract maximum nutritional, flavour, and economic benefit would have significantly favoured a dish that prioritized the use of any excess food in a palatable manner. Combined with the technological advances provided by the mincing machine, this challenging historical context predicated a rise in the popularity of the dish.

A Brief History of Potatoes

Comprising the outside layers of shepherd's pie is the potato: another staple of the dish that has remained largely constant over time. The vegetable first emerged in the Andes around Peru, and was likely domesticated over several events from 4000-8000 years ago.[18] Early spuds contained poisonous alkaloids that needed to be selected against in order to create safe crops, and figuring out which potatoes to keep and which to discard was undoubtedly a long process of cultural evolution:[19] trying new ones, attempting different cooking practices, and testing different soils and altitudes to achieve the optimum.[18]

Figure 4: My family usually uses German butter potatoes for the mashed topping on our shepherd's pie. These ones are from Sea Bluff Farm in Metchosin.

Fun Fact

Archaeological discoveries of pottery designs from the Andean regions suggest that there may have been a potato deity.[18]

Eventually, potatoes became a prominent food in what are now the Americas. Because of ongoing selection and the highly-varied climates, altitudes, soils, and ecologies of the area, thousands of varieties emerged across a spectrum of colours and tastes.[18] With the arrival of the Spanish 1532, potatoes globalized quickly. Colonizers initially mistook the round, underground vegetables for truffles[18] and eventually decided to bring some home to grow and spread around Europe as gifts.[20]

Europeans were quite skeptical of potatoes at first, with many concerned that, because they were not mentioned in the Bible, they could not be eaten.[18] But attitudes changed with the realization of how nutritious and productive they were in times of economic uncertainty, and cultivation exploded by the 1850s.[21] Thousands of varieties exist across the world today,[18] with upwards of 400 available specifically in the UK.[22] The type most often used by my family in our version of shepherd's pie is the German butter, great for mashing due to texture and flavour (Figure 4).

Figure 5: the bright orange carrots that we have today are the product of centuries of human selection based on preference for colour and flavour. The pictured specimens are also from Sea Bluff.

The Root of Carrots

Another relatively cheap and accessible vegetable, carrots add extra nutrients—specifically, beta-carotene that the body converts to vitamin A[23]—and colour to a good shepherd's pie. Before being mixed with the cooked meat, carrots are often sauteed with other vegetables and spices such as onions, celery, and garlic to create a soffrito—an aromatic flavour base for the rest of the dish.[24]

Fun Fact

Orange carrots also have the benefit of reducing stains while cooking, which can be a problem with anthocyanin-rich purple varieties.[23]

By the Elizabethan era, carrots had made their way from their origins on the Iranian Plateau[23] to the UK, where they found use in everything from cooking to decorating fancy hats.[25] Like potatoes, they were quick to become abundant in UK markets, owing to their ability to grow almost year-round in the region's naturally cool climate.[26] The flavour-seeking hypothesis[27] likely played a significant role in the rise of modern carrots: in the 17th century, orange varieties (Figure 5), with potential origins in Turkey, were eventually selected for over the white, purple, and yellow ones primarily due to better taste.[23]

Selective efforts on carrots have never stopped. With today's abundance of food, colour and flavour are far from the only characteristics that go into creating the perfect modern carrot: in the UK, aesthetic grading standards have meant that between ¼ and ½ of harvested crops have to be discarded for looking too misshapen.[28] The carrots that end up in the grocery store, therefore, reflect a uniformity that humans have come to expect and prefer from most fruits and vegetables.[28]

The Modern Shepherd's Pie

It is hard to research shepherd's pie recipes today without finding debates about what constitutes a truly faithful representation of the dish. Some think it should retain "authenticity" by adhering strictly to the use of lamb—even the thought of beef makes it a cottage pie!—and "British" vegetables such as carrots,[29] while others are more open to the kinds of protein, produce, and spices that can be involved. For instance, the dish has permeated Anglo-Indian cuisine;[1] a quick search finds recipes that trade salt and pepper for cumin and turmeric and lamb for low-fat turkey or lentils.[30,31]

Figure 6: Top - Sea Bluff Farm, a BC Certified Organic business from where my family sources several of our shepherd's pie ingredients, including carrots and potatoes. Bottom - our back garden (currently undergoing renovations), where we often grow parsley and thyme. With this setup being right outside and the farm about a 20 minute walk from the house, our version of the dish is often a substantially local endeavour.

Figure 7: My family's recipe is inspired by *Love and Good Stuff Magazine*'s Vegetarian Shepherd's Pie.[32]

Recipe

2 tspns nutritional yeast
1 tbsp soy sauce
1 tbsp cornstarch
½ tsp salt
¼ pepper
2 large potatoes
2 tsp olive oil
227 grams diced mushrooms
1 finely diced onion
1 finely diced carrot
1½ tsp chopped thyme
¾ cup lentils
¼ cup chopped parsley
¼ cup milk
2 tbsp butter
30 grams grated cheddar cheese
2-3 tbsp breadcrumbs

1. Soak lentils in water for 4-6 hours.
2. Sautee diced vegetables 6-8 minutes until soft. Add parsley and thyme.
3. Add lentils, stirring for about 1 minute; then add soy sauce and ½ cup of water. Cook for 10 minutes.
4. Peel, boil, and mash potatoes, mixing in butter, milk, salt, and pepper.
5. Put lentil casserole into an oven-safe dish, topping with mashed potatoes. Sprinkle with cheese, breadcrumbs, and nutritional yeast.
6. Bake for about 60 minutes at 350°F.

There are some interpretations not technically labeled "shepherd's pie," but that are still variations of the dish. One of the most well-known is the French *hachis Parmentier*, which uses essentially the same ingredients.[1] Where this dish differs, of course, is in the name—one honouring a key figure in French agronomy. The label "Parmentier" was once used to describe any potato-based dish in France after Antoine-Augustin Parmentier, who, in the late 18th century, made a career out of changing French citizens' minds about potatoes following his discovery of their nutritional value when he was taken as a prisoner of war in Germany.[9]

The Quebecois also hold claim to *Pâté Chinois*—literally "Chinese pie"—a reflection of shepherd's pie that is thought to have originated from Chinese labourers working on the CPR in the 19th century.[33] Increasingly-accessible corn and beef make up the casserole part of this dish.

My family's recipe (inspired by *Love and Good Stuff Magazine*'s Vegetarian Shepherd's Pie;[32] see Figure 7 and recipe) also deviates from the traditional version, though we do still call it shepherd's pie. Many of the main ingredients are sourced in from community food economies: lentils from Nootka Rose Bakery in Metchosin (Figure 2), potatoes and carrots from Sea Bluff Farm (Figures 5 and 6), and parsley from our garden (Figure 6).

Using produce from these contexts, especially Sea Bluff, where food is grown in soil nurtured for decades using fertilizers that include seaweed from the beach just 5 minutes away, helps to tie our version directly to place.

Though shepherd's pie is still an iconically British dish, these variations all serve to reflect how the dish has spread to become rooted in other diverse contexts, each with unique cultural modifications and personalizations.

2071 words

No Tomatoes, Please!

Tomatoes are one of the hot topics regarding which ingredients belong in the dish. Burginger (2024) is adamantly against them (except for "a bit of tomato paste"[29]), but the *Ambitious Kitchen*'s Indian-Inspired dish "needs" sauce to cook down the turkey.[31] Much of the blurry line between what is and what is not shepherd's pie often comes down to personal opinion.

References

1. Saberi, H. (2006). Shepherd's Pie. In A. Davidson & T. Jaine (Eds.), *Oxford Companion to Food* (2nd ed.). Oxford University Press.

2. Ayto, J. (2012). *The diner's dictionary : word origins of food & drink* (2nd edition). Oxford University Press.

3. Bowden, P. J. (1962). Sheep Farming and Wool Production. In *The Wool Trade in Tudor & Stuart England*, 1-40. Palgrave Macmillan, London. https://doi-org.ezproxy.library.uvic.ca/10.1007/978-1-349-81676-7_1.

4. Smil, V. (2002). Eating Meat: Evolution, Patterns, and Consequences. *Population and Development Review*, 28(4), 599–639. https://doi.org/10.1111/j.1728-4457.2002.00599.x.

5. Prothero, Rowland E. *English Farming, Past and Present*. of *Cambridge Library Collection - British and Irish History, 19th Century*. Cambridge: Cambridge University Press, 2013.

6. Fletcher, T. W. (1961). The Great Depression of English Agriculture 1873-1896. *The Economic History Review*, *13*(3), 417–432. https://doi.org/10.2307/2599512.

7. McNamee, G. L. (n.d.). *Shepherd's pie | Description, Origin, Lamb, & Casserole*. Britannica. Retrieved October 22, 2025, from https://www.britannica.com/topic/shepherds-pie.

8. Murray, T. (2025, January 30). *25 Best Shepherd's Pie Recipes & Ideas | How To Make Shepherd's Pie*. Food Network. Retrieved November 2, 2025, from https://www.foodnetwork.com/recipes/photos/shepherd-s-pie-recipes.

9. Grindrod, C. (2020, May 13). *Hot Potato: The History of Hachis Parmentier*. France Today. Retrieved November 21, 2025, from https://francetoday.com/food-drink/hot-potato-the-history-of-hachis-parmentier/.

10. Volpe, J. P. (2025, November 4). *The Ecological Hoofprint of Meat*. [Lecture]. University of Victoria, Victoria, BC, Canada.

11. *Directory of Sheep Breeds*. (n.d.). National Sheep Association. Retrieved October 30, 2025, from https://nationalsheep.org.uk/for-the-public/culture/sheep-breeds/.

12. Kennard, B. (2017, December 22). *Taste the Difference: Is there really a difference in flavour between mutton breeds?* National Sheep Association. Retrieved November 7, 2025, from https://static1.squarespace.com/static/6131fdc9cafb94176f25ab6d/t/61a8bee39fbd0d6f46a46a6e/1638448868355/Mutton+tastings+Dec+22nd+17.pdf.

13. Enaeas Sweetland, D. (1877). *Kettner's book of the table*. Retrieved October 27, 2025, from https://www.europeana.eu/en/item/9200143/BibliographicResource_2000069407673.

14. Gray, J. (2014). Hefting onto Place: Intersecting Lives of Humans and Sheep on Scottish Hills Landscape. *Anthrozoös*, 27(2), 219–234. https://doi.org/10.2752/175303714X13903827487520.

15. *Hefted Livestock*. (n.d.). Lake District National Park. Retrieved November 8, 2025, from https://www.lakedistrict.gov.uk/caringfor/farming/hefted-flocks-and-herds.

16. *New Tastes from Old Traditions*. (n.d.). British Heritage Sheep. Retrieved November 7, 2025, from https://www.heritagesheep.org/.

17. Kennard, B. (2018, July 22). *Results of Age-Based Sheep Meat Testings*. National Sheep Association. Retrieved November 7, 2025, from https://static1.squarespace.com/static/6131fdc9cafb94176f25ab6d/t/61a8bee39fbd0d6f46a46a6e/1638448868355/Mutton+tastings+Dec+22nd+17.pdf.

18. Shepherd, C. (2024). Potatoes. In Whayne, J. M. (Ed.), *The Oxford handbook of agricultural history*. Oxford University Press. https://doi.org/10.1093/oxfordhb/9780190924164.001.0001.

19. Volpe, J. P. (2025, October 14). *Gastrocultural Evolution*. [Lecture]. University of Victoria, Victoria, BC, Canada.

20. *The potato's travel through ages and continents*. (2024, May 30). Food and Agriculture Organization of the United Nations. Retrieved November 21, 2025, from https://www.fao.org/newsroom/story/the-potatos-travel-through-ages-and-continents/en.

21. Langer, W. L. (1975). American Foods and Europe's Population Growth 1750–1850. *Journal of Social History*, 9(2), 51–66. https://doi.org/10.1353/jsh/9.2.51.

22. *Potato Variety Database*. (n.d.). Agriculture and Horticulture Development Board. Retrieved November 9, 2025, from https://potatoes.agricrops.org/.

23. Stolarczyk, J., & Janick, J. (2011). Carrot: History and Iconography. *Chronica Horticulturae*, 51(2), 13-18. https://www.actahort.org/chronica/pdf/ch5102.pdf.

24. Maehashi, N. (2019, January 3). *Shepherd's Pie*. RecipeTin Eats. Retrieved November 21, 2025, from https://www.recipetineats.com/shepherds-pie/#h-shepherd-s-pie.

25. *History of Carrots*. (n.d.). Great British Carrots. Retrieved November 21, 2025, from http://britishcarrots.co.uk/history/.

26. *Carrot Production Facts*. (n.d.). Great British Carrots. Retrieved November 21, 2025, from http://britishcarrots.co.uk/carrot-production-facts/.

27. Volpe, J. P. (2025, October 2). *Hunting for Flavour*. [Lecture]. University of Victoria, Victoria, BC, Canada.

28. Wren, G. (2019, February 8). *Battle of the brave root: The story of the carrot*. Sustainable Food Trust. Retrieved November 21, 2025, from https://sustainablefoodtrust.org/news-views/battle-of-the-brave-root-the-story-of-the-carrot/

29. Burginger, L. (2024, May 9). *Which Vegetables Are In Shepherd's Pie?* The Cookful. Retrieved November 21, 2025, from https://thecookful.com/which-vegetables-are-allowed/.

30. Fountaine, S. (2019, November 25). *Indian Shepherd's Pie*. Feasting At Home. Retrieved November 22, 2025, from https://www.feastingathome.com/vegetarian-shepherds-pie/.

31. *Indian-Inspired Shepherd's Pie*. (2020, October 23). Ambitious Kitchen. Retrieved November 22, 2025, from https://www.ambitiouskitchen.com/indian-inspired-shepherds-pie/.

32. *Vegetarian Shepherd's Pie*. (n.d.). In Love and Good Stuff Magazine.

33. Henriquez, G. (2015, May 19). Where does Quebec's Pâté Chinois come from? *Global News*. https://globalnews.ca/news/2005549/where-does-quebecs-pate-chinois-come-from/.r

SOUPE AUX POIS JAUNES

Yellow Split-Pea Soup

Pea soup has a long past which takes it to most of Europe and throughout North America. Beginning with a simple pot of peas and water and ending with a soup enjoyed for lunch on a snowy day. With many variants world-wide, each with their own traditions shaped by history and culture, narrowing down the topic of pea soup is quite the task. Though pea soup exists in many cultures worldwide, I have chosen to focus mainly on the French-Canadian version and its associated history.

Pease porridge in the pot, thousands of years old

Everyone likes soup. That might be why it's so common in so many cultures and their cuisines. Dried legumes, particularly peas, are especially popular in the extensive history and geography of soups (Clarkson, 2010), and for good reason. Legumes are a great way to get many essential nutrients, especially if you have little access to much else. Historically, pea soup has been a fairly plain yet hearty meal similar to oatmeal (Rupp, 2014). Many of the oldest recipes are not written down, so, the exact evolution of the dish is hard to determine. What we do know is that the oldest records of pea soup come from ancient Greece. Pea soup is mentioned in Aristophanes' comedy The Knights as being up sold and described "as exquisite as it is fine" when in reality it was probably mostly peas and water. Not exactly an exquisite and fine fare, which is where the humour lies (Albala, 2007). A bit disrespectful to make light of my personal favourite soup, but I digress. Romans on the other hand had pea soup with added sausage, pork, and meatballs as well as a variety of herbs. Those additions made for a soup that was more for the wealthier classes as it contained more than just peas. The addition of three different meat was sure to add to the cost as well. The more ingredients, the more expensive the soup.

Fast forward to the medieval era, some recipes followed in the footsteps of the Romans while others remained simple likely consisting of only peas and maintaining the oatmeal like consistency. Medieval pease porridge was possibly kept going for extended periods of time, as in the nursery rhyme: "Pease porridge hot, pease porridge cold, pease porridge in the pot, nine days old" (Albala, 2007). Meatless pea soups were historically common during Lent, but both meatless and meaty pea soups have remained common worldwide including in the artsoppa of Sweden and gule aerter of Denmark. One recipe for Pease from 1660 includes boiling with mint, bacon, and sweet herbs (Rupp, 2014). A recipe reminiscent of a popular brand of canned peas in the UK, Mushy Peas, which have a minty flavour and are, of course, mushy. The canned pea soup you might be familiar with today is likely to be the Habitant brand French-Canadian version. You know the one, big yellow can, great on a cold winter day. French-Canadian pea soup typically consists of peas, vegetables, and ham, and is cooked using lard, or butter.

How We Got from Point A to Point Pea

If you are looking for a bright green bowl of soup, you are very much in the wrong place. This is Soupe aux Pois Jaunes, literally Yellow Pea Soup. This dish is made specifically with yellow split peas, a cultivar of your typical green pea, Pisum sativum, also called the field pea. Peas are among the worlds oldest known cultivated crops which means that their origins are vastly, unfortunately for me and all other legume enthusiasts, unknown. What is known is that the wild pea, from which the field pea is likely descended, was likely Indigenous to the Mediterranean and Middle East, the fertile crescent. Although likely to be related, the wild pea is believed to be a separate species from the cultivated variety eaten today.

Though how exactly we got from point A to point B is unclear. The peas eaten 10,000 years ago were likely to be starchier than the peas we have now (Rupp, 2014). Even modern pea varieties of the field pea (yellow) and the garden pea (green) are some what debated in terms of speciation, though the two are more likely the same species as the two are able to reproduce this each other and the resulting plant produces fertile seeds (Cousin, 1997). Today, more than half of the worlds field peas are grown in Canada, Russia, and China combined with a total of 100 countries growing them commercially (Janzen, Brester, & Smith, 2014). Peas are climate generalists capable of surviving in a variety of climates (Albala, 2007), another attribute contributing to their versatility.

Green v.s. yellow, what's the difference?

Peas and other legumes are big sources of plant-based protein and carbohydrates. The sugar content of yellow peas tends to be lower than in green peas producing a less sweet and more earthy flavour. One study on the differences in flavour between green and yellow peas, among other cultivars of field peas, found yellow peas to score highest in bitterness while green peas were among the highest scores in sweetness (Malcolmson, et al., 2014). While yellow peas were typically seen in the pots of peasants, green peas were seen in the kitchens of wealthier classes, especially king Louis XIV who was apparently obsessed with them (Rupp, 2014). Historically, pea soups and porridges have been consumed to keep people well fed, especially in the cold winter months when crops don't grow. Dried legumes in general still have similar benefits today being far cheaper than other protein sources and simple to cook a nourishing meal with.

Figure 1: Map of The Fertile Cresent

fennel

Many modern recipes of any kind typically use a mirepoix, a French technique of sauteed onion, carrot and celery. Though as a staple dish which can vary greatly from place to place and kitchen to kitchen, the vegetables included often rely on what is available to the cook. I opted for fennel in place of celery which gave a particular depth to the flavour and is not an unpopular addition to pea soup. Belonging to the Apiacea family, fennel is the only species in its genus, Foeniculum. Of that species, two subspecies exist. The subspecies available in most grocery stores is likely to be Florence fennel (F. vulgare subsp. vulgare), the cultivated variety. The other subspecies, bitter fennel (subsp. piperitum) is the wild form of fennel which is found in the Mediterranean region. Florence fennel is genetically, not well known. Unfortunately for fans of fennel genetics, very little is actually known on the topic (Magon, Palumbo, & Barcaccia, 2025). With the earliest mentions of pea soup coming from Greece and peas likely being Indigenous to The Mediterranean, similarly to fennel, it is possible that recipes from the time could have contained fennel, if it was available to whoever was cooking the soup.

Figure 2: Fennel bulbs

Ham

Though my recipe doesn't contain any, ham is a very popular edition to pea soups. Cured meats, like dried peas and legumes, are a fairly universal ingredient. Think of a culture, they probably have a form of cured meat associated with their cuisine. The reason being that cured meats can last a long time and refrigerators are a very new concept in human culinary history. What meats actually got cured, however, heavily relied on what was available. For colonizers, the meat which was cured was the pigs they brought with them. Colonizer ship provisions were also likely made up of dried vegetables and preserved meats along with a variety of grains. For Indigenous peoples that could have been wild game meat or fish, depending on the nation. The Mi'kmaq First Nation, whose land Samuel de Champlain had stolen and settled on, are a nation of hunter-gatherers residing on the east coast. Prior to European first contact, the Mi'kimaq nation had their own diet and food practices. That diet would have included fish, game, and a variety of forgeable plant foods. The food and cooking traditions of First Nations are practices which settlers used to combat scurvy and survive harsh winters. Those same practices were later stripped away by those same settlers. (Duncan, 2011)

Figure 3: Ham Hocks

Pea soup in Canada

As with most of Canadian history, Canadian pea soup has it's roots in colonialism. In the 17th century, Les Habitants, which roughly translates in this context to 'The Settlers' (if you're a hockey fan, yes, that is where the nickname of 'The Habs' for the Montreal Canadiens comes from) first arrived in what is now Newfoundland and the eastern maritime provinces. A region called L'Acadie by the colonists and inhabited by the Mi'kmaq first nation. With them the French settlers brought much of their own foods including soup made with yellow split peas, vegetables, and either ham hock, salted pork, or roasted ham with ham hock being the most traditional choice (Peyton, n.d.). Today, recipes remain more or less the same in terms of ingredients with a few regional variations in Canada including the Newfoundland and Labradorian variant which specifically uses leftover easter Sunday ham and doughboys (dumplings) (Peyton, n.d.) as well as some meatless options. In my family, we crack open the cookbook full of handwritten recipes and flip through until we find grandmas pea soup. We add ham if we have it and just keep the veggies if we don't.

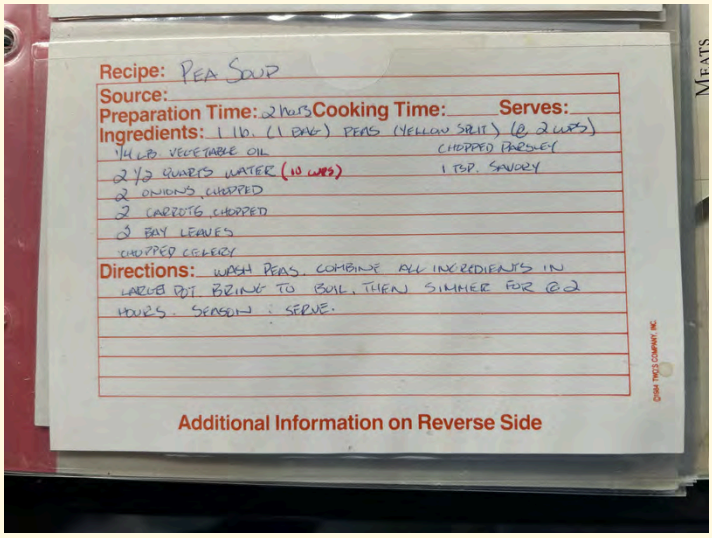


Figure 4: The original recipe

Adaptations in my own recipe

While lots of recipes for pea soup generally do contain meats, there are also many that don't. With peas, cured meat, and soup being so universally consumed, it all depends on what is available. The ingredients are heavily dependent on the factors of where and when as well as personal dietary preferences. Some recipes omit meat in observation of Lent, while others do so out of necessity. A recipe published by Parks Canada based on 1750s soldier rations at Fort Chambly features no meat and only onions as vegetables (Parks Canada, 2024). The main purpose of peas soups, especially the medieval European pottages which many pea soup recipes most closely resemble, is to have something to eat. It's evident in the simplicity of the recipes and the standing reputation of a good pea soup. You eat them in the cold winter months when you need to warm up from the inside out. The true main ingredients have always been water and peas. Anything else was mainly dependent on status and what you already had on hand. Today's pea soups are really no different. My Grandmother's recipe, which I used as a jumping off point, doesn't contain any ham. Though I remember as child having the leftover Easter ham thrown in or the stock made from the Christmas and thanksgiving turkey bones instead of water. While I personally chose not to include the ham or turkey broth, it remains a great way to use up leftovers.

The Recipe

Ingredients

- 1 bag (450 g) yellow split peas
- 10 cups water
- 1 bay leaf
- ½ onion sliced
- 2 carrots sliced
- 1 small fennel sliced
- 1 tsp Liquid smoke
- 1 tsp Savoury or Sage
- Salt and Pepper to taste
- 2 tbsp oil
- 1tbsp butter, salted

Steps

1) In a large pot, heat oil and butter over medium heat until melted
2) Add the onion, carrot and fennel, sautee until onion is translucent
3) Add savoury (or sage if using), salt and pepper
4) Add water, peas, and liquid smoke. Bring the mixture to a boil, reduce the heat to low and allow to simmer for and hour.
5) If a smoother consistency is wanted, blend with an immersion blender.
6) Serve warm with crusty bread.

Figure 5: The finished product

References

Albala, K. (2007). Peas, Chickpeas, and Pigeon Peas. In Beans: a History (pp. 65-77). Bloomsbury Academic.
Clarkson, J. (2010). Early Soup. In Soup: A Global History (pp. 17-31).
Cousin, R. (1997). Peas (Pisum sativum L.). Field Crops Research, 53, 111-130. doi:https://doi-org.ezproxy.library.uvic.ca/10.1016/S0378-4290(97)00026-9
Duncan, D. (2011). Chapter 4: "Come Then, Chefs, Cooks, and Boys - All You Who Make Good Cheer". In Canadians at Table: Food, Fellowship, and Folklore: a Culinary History of Canada (pp. 37-42).
Janzen, J. P., Brester, G. W., & Smith, V. H. (2014). Dry Peas: Trends in Production, Trade, and Price. Bozeman, MT: Montana State University Agricultural Policy Marketing Centre.
Magon, G., Palumbo, F., & Barcaccia, G. (2025, May 7). Genetics, genomics and breeding of fennel. BMC Plant Biology, 25(595). doi:https://doi.org/10.1186/s12870-025-06608-5
Malcolmson, L., Frohlich, P., Boux, G., Bellido, A.-S., Boye, J., & Warkentin, T. (2014). Aroma and flavour properties of Saskatchewan grown field peas (Pisum sativum L.). Canadian Journal of Plant Science, 1419-1426. doi:https://doi.org/10.4141/cjps-2014-120
Parks Canada. (2024, May 29). Fort Chambly Pea Soup. Retrieved from Parks Canada: https://parks.canada.ca/culture/gourmand-gourmet/recette-recipe27
Peyton, G. (n.d.). The History of Pea Soup in Canada. Retrieved from Canadian Food Focus: https://canadianfoodfocus.org/canadian-food-stories/the-history-of-pea-soup-in-canada/
Rupp, R. (2014, November 6). Princesses, Pottage, Posterity, and Peas. Retrieved from https://www.nationalgeographic.com/culture/article/princesses-pottage-posterity-and-peas

Images Cited

Figure 1: https://www.britannica.com/place/Fertile-Crescent
Figure 2: https://www.greatbritishchefs.com/how-to-cook/how-to-cook-fennel
Figure 3: https://glossary.menuexplain.com/ham-hock
Figure 4: Photo taken by Elizabeth Brunet, Recipe by Ann McJanet
Figure 5: Photo taken by Vivienne Brunet

December 1, 2025

Gastronomy Journal 2025

Figure 1: Image of Stamppot

PRACTICALITY MAY BE UGLY BUT IT IS ALSO DELICIOUS: STAMPPOT

Dutch Practicality Showcased through Stamppot

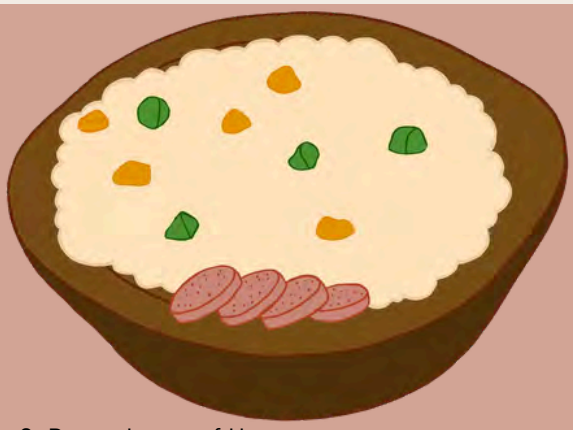


Figure 2: Drawn Image of Hutspot.

The Netherlands has experienced hardships through wars and times of famine, a hearty dish such as Stamppot (see figure 1) became a staple because of it. No one knows the true origin of Stamppot but it is believed that it may have evolved from a victory dish that the Dutch called Hutspot (see figure 2) [9,1]. Hutspot means "to mix" and "pot", it is the earliest known version of Stamppot [9,1]. According to Dutch legend, it originated in the 16th century at the end of the Siege of Leiden during the Eight Years' War [9]. During the war the Spanish occupied the Netherlands, the war lasted for months causing many people to starve [9]. When the Dutch recaptured Leiden and the Spanish fled, they left behind pots with an unknown stew of carrots, parsnips, meat and onions [9]. Since the Dutch were starving, they ate the stew in victory of the take back [9]. Due to the common ingredients, it was also considered to represent freedom from oppression during World War II in the Netherlands [9]. In the true spirit of the Dutch this dish is practical at heart. You can make big batches of the dish to share in a gathering (commonly done in the Netherlands) [9]. This shared meal became so common, in fact there is even a word for it Stamppotavond, which means stamppot evening [9]. One could question if Stamppot was shaped by Dutch culture, or if Dutch culture was shaped by Stamppot.

Land and Tables United in Stamppot

The Netherlands is a low lying land mass with significant areas below sea levels[14]. Due to technology such as dikes and water management systems they are able to use the land [14]. The Netherlands also has highly fertile soils making it ideal for farming [14]. Potatoes were shown to grow specifically well in the Netherlands thus the popularization of the potato industry there [7]. Potatoes are a hardy crop that lasts in a cellar all winter making it ideal as a base in the colder months for all families. Due to the origin of the potato coming from the Andes the potato grows particularly well due to the cooler conditions the Netherlands provides [7]. The smoking of the sausage got its distinct flavor due to the wood it was smoked with in the Gelderland province (see figure 3). The fact that beech and oak wood is common throughout Gelderland, specifically in the areas of Veluwe and Speulderbos, made it become the woods of choice for smoking there [2]. The common additions to different variants of stamppot are mostly shelf stable ingredients such as canned kale, leeks (which grow year round in the Netherlands due o the temperate maritime climate) or Sauerkraut [4]. A lot of the ingredients commonly used when making stamppot were all preserved in some way or able to be shelf stable for longer periods. The addition of pork sausage to stamppot was most likely due to pig slaughters being traditionally done in November in the Netherlands and the seasonal convenience of this savoury protein [5]. This was due to the cooler weather provided in November making the butchering task more manageable [5]. This also allowed people to stockpile meat for the winter, specifically the Christmas season, which was traditionally celebrated with feasting.

The Soul of Stamppot: Potatoes

The potato remains a staple ingredient all over the world [9]. Potatoes are a highly digestible, starchy tuber, rich in protein, niacin, thiamin, and vitamin C [9]. When mashed, like they are in Stamppot, they become thick, creamy and delicious. Potatoes are the soul of Stamppot and the most consistent ingredient across variations of the dish. The potato is the fifth most

Figure 3: Map of the Netherlands, highlighting the province of Gelderland (light green) and the city of Arnhem (orange).

important crop in our world today and the European and North American adoption of potatoes is the “template for modern agriculture” [9]. The potato is thought to originate in the Andean Landraces through cultivation by the Inca Empire in around 8000 to 5000 BC [15]. Though it is disputed, it is said to originate from approx. 20 similar wild species progenitors known as the S.brevicaule complex [15]. The potato then started its journey to European tables through Spanish Conquistadors in the 16th century [7]. It was initially just a food for the aristocrats of higher society in Europe. From there it made its way to the Netherlands in the 1700s where it quickly became accepted by the population and became an important part of the daily Dutch diet [7]. The reason popularity grew was practical due to the high yield compared to the grains and legumes that were the basis of the European plant based diet [7]. In the 19th century scientists like Louis’s de Vilmorin became interested in crossing and plant breeding potatoes [12,18]. It was only by the end of the century that potato advancement in agriculture became popular due to the introduction of a farmer cooperative in Sweden [12,18]. Systematic potato breeding with lasting economic success started in the second half of the 19th century and a major figure was dutchman Geert Veenhuizen [7,17]. Today, the Netherlands is still a global leader in potato production, potato breeding and the world's leading supplier of certified seed potatoes [18].

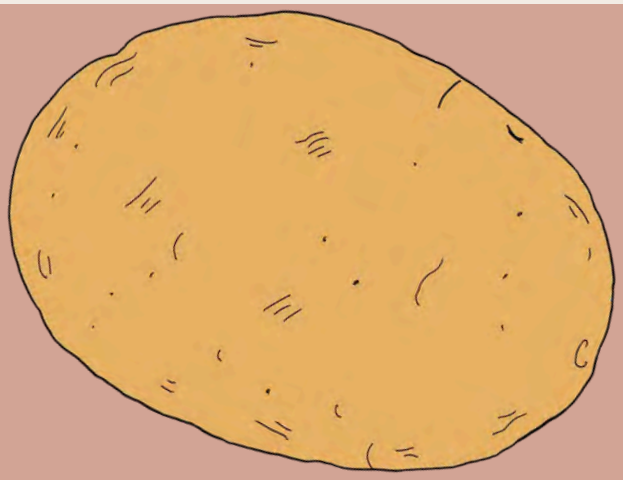


Figure 4: Drawn Image of Bintje Potato

Bintje: A Perfect Stamppot Potato

Though the dish of Stamppot isn't picky on what potatoes you use, the one created through the Netherlands that are perfect for stamppot is bintje (see figure 4) due to there large starch content that makes them mild and creamy, plus it's available all year round [16]. Bintje was invented in 1904 but wasn't released until 1910 to the public [16]. It was bred by Kornelis Lieuwes de Vries who was an elementary school teacher in the Netherlands [16]. Kornelis named the potato after a former student of his, Bintje Jasmin [16]. Though at first it wasn't preferred due to it not being mealy enough, so it was fed to pigs. During the First World War the fact that it had great yield, helped it become a preferred variety [16]. By 1918 the bintje potato established itself in districts of Holland but again after the war the demand fell as the want for mealy potatoes grew once more [16]. New markets were sought for the bintje and it was introduced to France where it was found that it made great fries in Paris [16]. It then began to expand rapidly in France in Belgium [16]. After this, it was majority grown for seed potato within the Netherlands until the 1930s housewives began to show a preference for it again [16]. After World War II it continued to increase in popularity due to its pretty appearance, tuber shape, skin colour, and shallow eyes all being attractive to the consumer [16]. It now has a well deserved reputation and in some countries in Europe is one of the only potatoes used for consumption by people [16]. Today bintje is still one of the most popular breeds of potatoes in the Netherlands and a common base for Stamppot [16].

Smoked Sausage (Dutch rookworst): Preserved In Time

The beginning of usage of our delicious star ingredient dates all the way back to the ancient times of Mesopotamia [19]. Sausage made its way to the Netherlands through the Roman Empire [19]. The Roman Empire started the smoking of sausage and this flavourful sausage has been on Dutch tables ever since evolving due to the locals [2,19]. Rookworst (see figure 5), which translates in English to smoked sausage, is renowned for its smokey rich flavor with a juicy bite [10]. A recipe from 1940 made Rookworst with ground pork, bacon, and veal, but today it is majority pork blended with a variety of meats to make it a more affordable sausage for the average family [6]. A traditional rookworst would consist of four parts pork, three parts veal and three parts bacon [6]. It is then seasoned with a blend of spices varying from pepper, cloves, and nutmeg depending on the butcher and the family [10]. After it's been processed, it is stuffed inside of pig's intestine as a casing, twisted into a ring shape and taken to the smoke house for processing [6]. Today the intestine casing are usually swapped out with bovine collagen from cows [6]. This delicious sausage dates back to the 17th century when preserving meat was a priority and sausage was an easy way to do that [11]. Smoking the meat extended the shelf life and added a rich flavor, as well as added to the dining experience of the consumer [11]. The first written notation of rookworst wasn't until 1756 in the anonymously published book "De Volmaakte Gelderse Keuken-Meid" which included the first written instructions on how to make smoked sausages [3,10]. The recipe included the smoking directions using oak or beech wood [3,10]. This is when rookworst as we know it today was established [2]. It is important to note that before the written introduction of the recipe of rookworst farmers had already been practicing their own versions for their families. The version of rookwurst as we know it today began in the province of Gelderland due to its access to oak wood and beech wood, which was the preferred wood for smoking [2]. Due to the invention of this sausage predating refrigeration, the smoking was mostly done out of need for longer access to meat [2]. In Gelderland around the 1900's

almost every single farmer was smoking their own meat using their own chimneys [2]. They would smoke the sausage at a low temperature because the smouldering of the wood would allow the sausage to remain raw while also providing a rich flavour that preserves the sausage to be cooked in the future. Today the smoke flavour usually comes from an additive called Glucono delta-lactose due to it also extending shelf life and it being an affordable swap for the process of smoking [6]. In more modern times we began to see packaged rookworst as a sellable item outside of Gelderland as a pre cooked sausage to use in any home [6]. Within Gelderland you still had raw smoked versions of the sausage being made by local butchers but prepackaged allowed the market to grow and extend outside of Gelderland [6]. Pre-packaged rookworst became popular due to its longer shelf life and accessibility for the average family. This was the start of varying qualities of rookworst dividing the marketplace into a market version and an artisan sausage. Today there is still a wide range of rookworst quality but the fact remains the same; all rookworst is delicious.

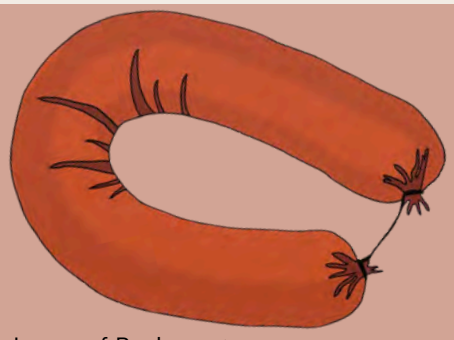


Figure 5: Drawn Image of Rookworst

Stamppot Evolving as Generations Pass

Stamppots claim to fame in the Netherlands is how it celebrates the Liberation of Leiden [13]. It is still traditionally eaten on October 3rd to represent the Liberation of Leiden from the Spanish in 1574 [13]. Since the inception of the dish it has evolved within the Netherlands into many different versions due to its roots in seasonal ingredients and food scarcity. The most popular versions eaten today are boerenkoolstamppot (kale stamppot), zuurkoolstamppot (sauerkraut stamppot), hutspot (historical version), andiviestamppot (raw endive stamppot), preistamppot (leek stamppot), and hete bliksem (apple stamppot) [13,20]. Versions of the dish are pasted down through familial lines, including my own [12]. The most commonly found stamppot today is boerenkoolstamppot but the sausage can be switched out for other meats such as bacon or other smoked sausages depending on availability and preference [13]. The sausage is most likely switched out if stamppot is eaten abroad due to the scarcity of finding Dutch rookworst outside of the Netherlands. Vegetables such as mushrooms, sweet potatoes, carrots, or others people have on hand are also now added in due to the flexible nature of the dish and cooking preferences [13]. Whatever you have is good enough for this Dutch dish and it always turns out just right.

Stamppot: Hardly Original but a Dutch Classic None the Less

The culinary idea of stamppot is not exclusive to The Netherlands. Variations of potatoes mashed with other vegetables served with meat, also exist in other countries in the western world with their own unique flavours. In England we see the comfort dish bubble and squeak. Ireland has colcannon which families enjoy as comfort food. While another similar dish by the name of stoemp is eaten in Belgium. The spices and herbs may vary, but these dishes have the common denominator of a simple hearty potato dish prepared with simple ingredients of seasonal vegetables to satisfy hungry families.

Stamppot is commonly found among Dutch immigrants who have moved abroad, but due to the lack of rookworst available, it may need to be switched out with a smoked sausage that is accessible. Stamppot is commonly eaten among Dutch Canadians like my own family. My family was a part of a large Dutch immigration to Canada after World War II. Within Canada, rookworst is hard to find and farmers sausage is a swap used for the Dutch sausage. Depending on the familial lines that this dish evolved from, immigrants from the Netherlands will usually pass down the variation of Stamppot that they know. For my family who came from Arnhem in Gelderland, the borerenkool version of stamppot is the variety of choice.

240

Family Connection and Stamppot

Stamppot is a comfort food eaten by my family. My Great-Grandmother on my mother's side, Wilhelmina (see figure 6), made this a staple dish in Canada for her family and has passed down her version of the recipe throughout the generations. While every Dutch family has their own versions of this recipe, ours is a personal favourite. Wilhelmina immigrated from Arnhem in the province of Gelderland, so our family's version is made with kale and it is always served with smoked sausage due to both having been readily accessible to her in Gelderland. We also have an addition of butter, cream and vinegar for a unique savoury flavour. This dish might not be pretty but it is certainly delicious.

Figure 6: Wilhelmina (on the right) pictured next to her husband (on the left)

Recipe

Ingredients:

- 6 medium sized potatoes (any variety but red are a family favourite)
- 6 tablespoons of butter with more for adding at the table
- 4 tablespoons of cream (add more if needed to achieve a smooth, creamy texture)
- Salt and pepper to taste with more for adding at the table
- Dash of nutmeg
- 1 jar/can of canned kale (well drained)
- 1 package of a smoked sausage ring (Dutch Rookworst if possible but any smoked sausage ring will also work, farmers sausage is a good alternative available in Canada)
- ¾ cup of white vinegar plus more on the table for serving

Instructions

- Peel and chop potatoes into four pieces each. Any type of potato will work but red potatoes add a great taste and texture.
- Place the potatoes in enough water to cover with water and add salt to the pot.
- Cut your sausage in half (4 pieces also will work if the pot is too small)
- Place the sausage in the pot with the potatoes and turn the heat to high on the stove.
- Boil the potatoes and sausage together until the potatoes are fork tender and ready to mash. The sausage will have plumped up and be ready to serve, so keep warm on the side as you prepare the potatoes.
- Once the potatoes are tender, take them off the stove.
- Remove the sausage from the water and place it on a plate and cover.
- Drain the potatoes of all the water.
- Put potatoes in a large bowl and then add butter, a good sprinkling of salt, nutmeg and a dash of pepper.
- Beat the potatoes, butter and cream with a hand mixer until it becomes a smooth texture. Add to your taste salt, pepper and vinegar. If you add a small amount at a time it is helpful.
- Before adding the kale to the mashed potatoes, pour the jar/can of kale into a strainer and press with a fork until all the liquid has come out and it is as dry as possible (try your best with this step to remove as much liquid as possible).
- Add your kale to the pot with the potatoes and use your hand mixer to blend it in.
- Cut your sausage into small pieces and add it to your potato mixture and stir it all together.
- Serve with more white vinegar, butter and salt to taste at the table.

References

1. Bramen, L. (2010). Hutspot—the taste of Dutch freedom. Smithsonian Magazine. https://www.smithsonianmag.com/arts-culture/hutspotthe-taste-of-dutch-freedom-101179337/
2. De Moor, J. (n.d.). Rookworst. Janny De Moor. https://jannydemoor.nl/nl/2020/08/rookworst/
3. De Permaakte Gelderse Keuken-Maid. (1756). Hendrik Heyman.
4. Engelbrecht, K. (2025). Dutch stamppot recipes. The Spruce Eats. https://www.thespruceeats.com/stamppot-recipes-to-try-today-1128389
5. Gelderse rookworst. (2023). Vlees.nl. https://www.vlees.nl/blog/gelderse-rookworst/
6. Kiddle Encyclopedia. (2025). Rookworst Facts for kids. https://kids.kiddle.co/Rookworst
7. Louwaars, N. P. (2023). Chapter 4. Potato in the Netherlands – a remarkable story. In Impact of hybrid potato (pp. 45–48). Brill. https://brill.com/downloadpdf/edcollchap-oa/book/9789086869466/BP000006.pdf?srsltid=AfmBOooG-baSJ2IB7h4cGxBA8OONykcwL42wLpg4KOhYUYZdE9-okFNU
8. Making your own Dutch Rookworst. (n.d.). Starter Culture. https://startercultures.eu/making-your-own-dutch-rookworst/
9. Mann, C. C. (2011). How the Potato Changed the World. Smithsonian Magazine. https://www.smithsonianmag.com/history/how-the-potato-changed-the-world-108470605/
10. Manon. (2020). 18th-century kitchen maids – Historical Cooking Classes. Historical Cooking Classes. https://www.historicalcookingclasses.com/18th-century-kitchen-maids/
11. Melissa. (n.d.). Dutch rookworst: a traditional smoked sausage from the Netherlands. Love the Netherlands. https://lovethenetherlands.com/dutch-rookworst-a-traditional-smoked-sausage-from-the-netherlands/
12. Nilsson, H.H., 1898. Einige Kurze Notizen über die Schwedische Pflanzen-Veredlung zu Svalöf; Skanska Lithografiska Aktienblaget, Malmö, Sweden
13. Nwannazia, C. (2025). The history of stamppot and how it became a traditional Dutch staple. Dutch Review. https://dutchreview.com/culture/stamppot-dutch-traditional-food/
14. Rowen, H. H., Wintle, M. J., Meijer, H., & Heslinga, M. W. (2025). Netherlands. Britannica. https://www.britannica.com/place/Netherlands
15. Spooner, D. M., McLean, K., Ramsay, G., Waugh, R., & Bryan, G. J. (2005). A single domestication for potato based on multilocus amplified fragment length polymorphism genotyping. Proceedings of the National Academy of Sciences, 102(41), 14694–14699. https://doi.org/10.1073/pnas.0507400102
16. Stevenson, F. J. (1966). News and Reviews: Bintje. American Potato Journal, 43, 458–459. https://link.springer.com/content/pdf/10.1007/BF02862736.pdf
17. Van Loon, J., 2019. Door eendrachtige samenwerking; de geschiedenis van de aardappelveredeling in Nederland, van hobby tot industrie 1888-2018. PhD thesis, Wageningen University, Wageningen, the Netherlands, 407 pp. https://doi.org/10.18174/46908
18. Van Loon, J. P., Van Cruyningen, P. J., Wiskerke, J. S. C., & Lammerts Van Bueren, E. T. (2023). The History of Dutch Potato Breeding 1888–2018: from Hobby to Industry. Potato Research, 67(3), 861–899. https://doi.org/10.1007/s11540-023-09661-5
19. Van Tonder, E. (2025). Origins, evolution, and global distribution of pulverized meat products – Earthworm Express. Earthworm Express. https://earthwormexpress.com/sausages/origins-evolution-and-global-distribution-of-pulverized-meat-products/
20. Waterschoot, S. (n.d.). Hete bliksem. Leuke Recepten. https://www.leukerecepten.nl/recepten/hete-bliksem/

ES: 347 Gastronomic Journal, 2025

Swedish Cinnamon Buns

By: Em Coutts

Image: Del's Cooking Twist

Introduction

Made up of rolling hills, grassy valleys, and dotted with numerous islands, Sweden's territory includes the majority of the Scandinavian peninsula which it shares with its neighbours Norway, Finland, and Denmark. When one first thinks of Sweden they may think of IKEA, ABBA, and snow, but there is a lot more to this beautiful country. Sweden ranks as the fourth happiest country in the world due to a reliable social welfare system, a successful economy, trust in the government, and work-life balance. Swedes have mastered the art of living a cozy and content life and a big part of that is food. Due to the country's harsh winters, preservation of food was vital for survival and this history is echoed in cuisine today. Staples of the Swedish diet include salted, dried, and pickled meat and vegetables. Food has also been impacted by trade, and Sweden has historically been very open to trade resulting in affinities for spices such as cinnamon. Though Swedes have a tradition of eating salted and pickled foods, they are suckers for a sweet treat. In the modern day, Sweden has a robust coffee culture as the largest consumer of the beverage in Scandinavia. But you can't have coffee without a little treat! And thus the practice of fika was born (Weibull et al., 2025)

Fika

Fika is a sacred every day ritual that is protected by labour laws. It is the idea of slowing down every day to enjoy the company of others accompanied by a coffee and sweet pastry. This tradition grew in the 19th century with the introduction of patisseries into the Swedish market and the growing accessibility of coffee. Cinnamon buns, or 'kanelbulle', are one of the most popular pastries to be enjoyed during fika even though they are still relatively new on the scene. Other pastries that are often enjoyed are princess cakes 'prinsesstårta', chocolate balls 'chokladboll', and chocolate cake 'kladdkaka', but it is important to remember that the core of fika is about connection and conversation with other people.(Fika Like a Swede - What Swedish Fika Is and 5 Classic Treats to Try, 2025)

Image Source: Encyclopedia Brittanica

The Story of Swedish Cinnamon Buns

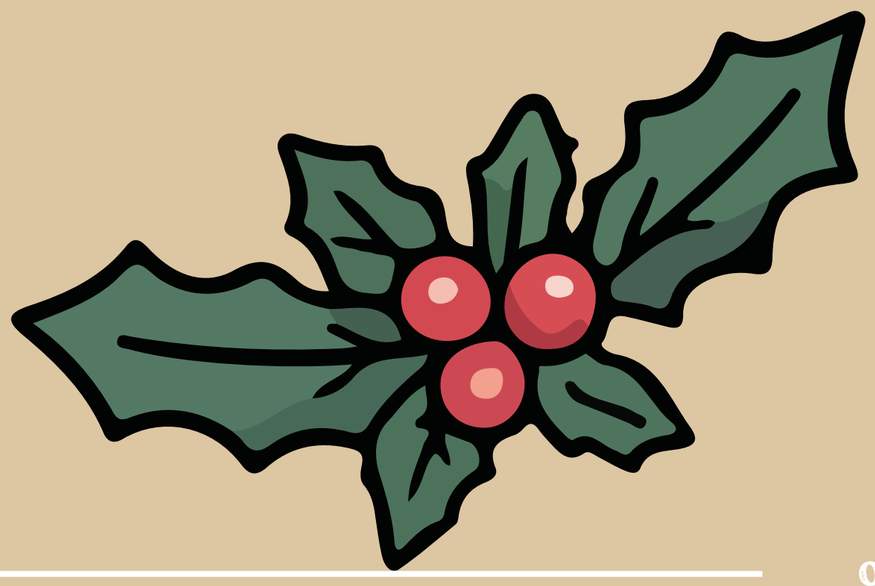
Cinnamon buns are relatively new to the Swedish diet, though they made their mark quickly with delicious swirls of cinnamon and yeasted bread, topped with pearl sugar. Cinnamon buns, or kanelbullar, is of the family vetebröd which is a sweet yeasted bread that often takes the form of a filled bun. The origins of the cinnamon bun are haughty debated as Germans believe they deserve the title of inventor of the cinnamon bun. “hwetebröd” which was first mentioned in 1849 was a sweet cinnamon bread rolled and dusted with egg yolk and sugar, and it is safe to assume this is the Swedish ancestor of the modern cinnamon bun. It is difficult to nail down the exact origin of the pastry as Scandinavia is very interconnected, but what makes Swedish cinnamon buns stand out is the topping of pearl sugar rather than a cream cheese icing or other glaze. They are also usually less sticky than the American buns that are overflowing, and have the addition of cardamom in their filling. Its simplicity is what makes it uniquely Swedish (Fredborg, 2021).

While the pastry began to emerge in the late 19th century, it was not until the 1920s when its popularity boomed. This boost was a result of post war prices on butter, flour, and eggs, goods which had previously been more difficult to come by. Cinnamon buns are so popular in Sweden that they have their own day. In 1999 it was decided that October 4th would be Kanelbullens dag (cinnamon bun day), which is accompanied by the sale of millions of the tasty pastries (THE STORY OF CINNAMON AND SWEDISH CINNAMON BUNS, 2023).

Family Recipe

My family has been immigrating to Canada for centuries which means I have lost the majority of any connection I would have with my ancestry. Cinnamon buns from my Swedish ancestors are the only thing I have passed down on my mom’s side. My Swedish ancestors immigrated to Saskatchewan in the mid 1920s when Canada was offering “free” land in the prairies to Scandinavians and Slavic people to work as farmers who would feed Ontario. My Great Grandfather, Nils Eldström, was the youngest of his siblings and the only one of them born in Canada. I am lucky because my family stuck around Sweden just long enough to pick up a recipe to pass down to my grandad, my mother, and now me. We eat these every year for breakfast on Christmas morning and the flavour has become synonymous with the holiday… it almost feels wrong to eat them any other time of year!

Image provided by author



Ingredients

Mixture 1:

- 2tbsp active dry yeast
- 1 cup lukewarm water
- 2tsp sugar

Mixture 2:

- 1 cup scalded milk
- ¼ cup salted butter
- ½ cup sugar
- 1 tsp salt

- Filling
- 2 cups brown sugar
- 4 Tbsp cinnamon
- 1 Tbsp cardamom
- 1 cup softened salted butter

Additionally:

- 2 eggs
- 6 cups of flour (plus extra for kneading)

Directions

- Start by making mixture 2 so it has time to cool
  - Scald milk
  - Once scalded add salted butter, sugar and salt, stir regularly until butter is melted
  - Remove from heat and let cool to room temperature
- Make mixture 1
  - Combine ingredients, allow yeast to bloom for five minutes
- Once mixture 2 is cooled, combine the two in a stand mixer and beat well
- Add three cups of flour to the mixture
- Add two eggs to dough
- Beat well. Slowly stir in 3 more cups of flour until a soft and not sticky dough forms.
- Turn out onto a floured board and knead until smooth and satiny (about 10 minutes).
- Grease a bowl with butter and place dough in bowl turning it in grease so it is covered. Allow to rise for 1-1½ hours. While waiting, make the filling.
- Once dough has doubled in size punch the dough down and knead lightly.
- Divide the dough into 3 equal parts (set other two aside for now).
- Roll dough out with a rolling pin into a long rectangle shape. Evenly spread ⅓ of the filling across the dough and gently roll the dough into a spiral. Divide this roll into quarters and then divide the quarters into thirds (each roll should be about 1 inch thick). Repeat the process with the other two dough balls.
- Grease cake pans with butter and place buns in, leaving about half an inch of space between each bun. Brush buns with heavy whipping cream and sprinkle pearl sugar on top. Bake at 375°F for 15-20 minutes.

History of Ingredients

Gustave Vasa, King of Sweden (1523-1560)
Image Source: SWEDISHNESS

A Story of Spices

While the cinnamon bun is a relatively new invention, Swedish love for cinnamon dates back centuries. The King of Sweden from 1523-1560, Gustav Vasa, was a big fan of the spice and worked to ensure it was available for the Swedish elite. Vasa imported cinnamon mostly from Sri Lanka and it was used by the wealthy in breads and wines. As trade routes were strengthened the spice became a staple in many households and was often found in unsweetened breads (Aaron, 2020).

The other important spice here, cardamom, was introduced slightly earlier thanks to Viking raids of Türkye which imported the spice from southern India. Sweden is the only western country to use cardamom in their traditional cuisine (Aaron, 2020).

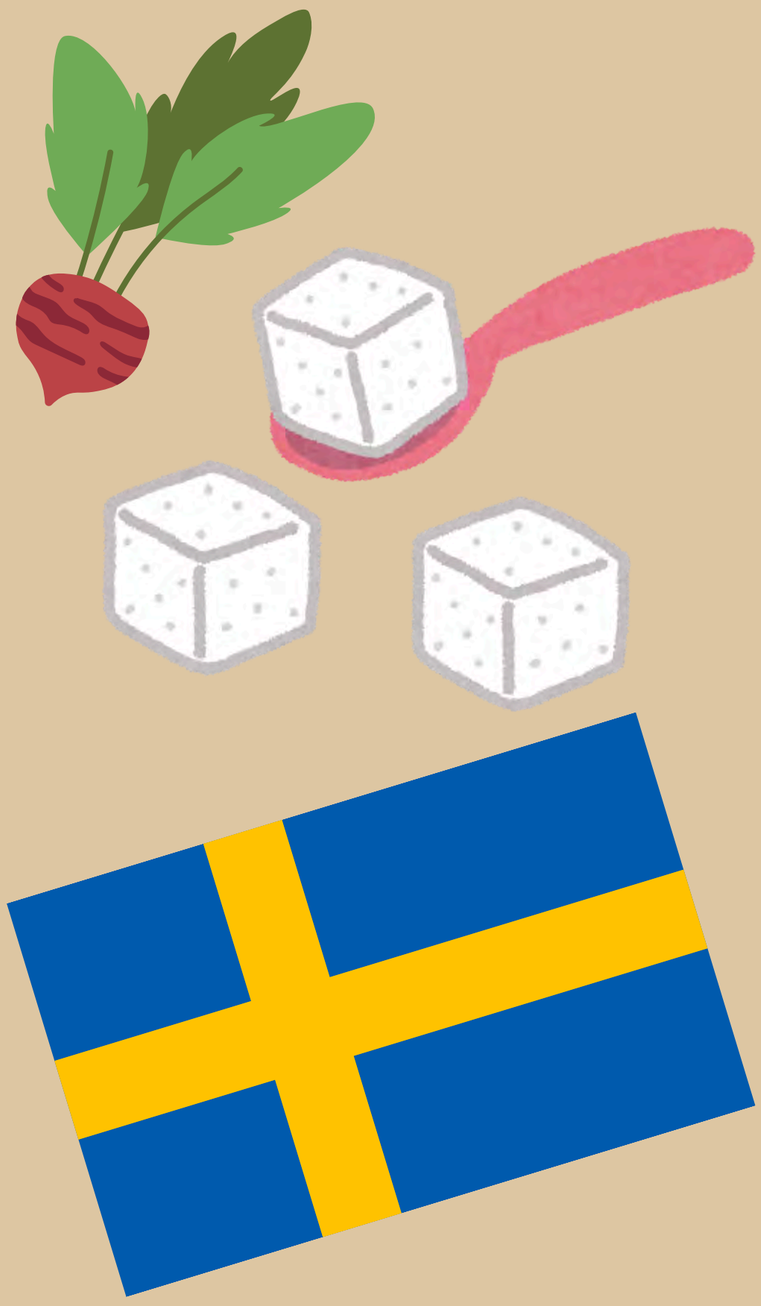
Happy Butter

Butter and the wider dairy industry of Sweden is an interesting case study of what it means when animal wellbeing is prioritized in production. Cows have the right to graze which is protected by law and it is argued that you can taste the difference in quality of butter from a happy cow and a stressed cow. However, there has been recent pushback by farmers who argue that requiring grazing minimizes profits and competitiveness. This has been proven to be untrue as Swedish dairy products are sold at a premium and are still very profitable (*Sweden*, n.d.).

Sweden has a long culture of using cows for food both for meat and dairy products, butter was easily made and stored due to the cold temperatures up north. Swedish butter is traditionally slightly sour due to the addition of lactic acid to make cultured cream. Culture cream is then left to rest for around three days before churning to promote good bacteria. Traditionally people used a butter churn however, at the end of the 1870s, Swedish engineer Carl Gustaf Patrik de Laval introduced the centrifugal cream separator. This invention separated cream from milk and made it much easier to make butter ("The History of Butter," 2019).

Swe(d)ish Sugar

Sugar was historically not a part of the Swedish diet which is a stark contrast to today. Sugar was first introduced to Swedish nobility in the 17th century by importing it from slave plantations in the Caribbean. As soon as the nobility developed a taste for sugar, so did the bourgeoisie who often had influence over trade and could encourage more imports of sugar. During the 18th century sugar became more accessible as Swedes began to grow sugar beets though sugar was still saved for special events like weddings and funerals. Because Swedes were so conservative with their use of sugar, there ended up being a surplus and the government started to encourage people to eat more (their dental hygiene be damned). Thanks to this campaign sugar became a staple part of people's diets in the early 20th century and remains so to this day ("How Did Sugar Come to Sweden?," 2015).



Conclusion

Swedeish cinnamon buns are an important staple in the Swedish diet. They represent the values of Swedish work-life balance culture and celebrate post-war economic advances.The love Swedes have for cinnamon and cardomom dates back centuries and relfects the deep connections Sweden has to other places and the historic strength of their trade routes. The emphasis on mainatining cows happiness also reflects the deeplu heald value in Sweden that everyone (including cows) deserves to live a happy and dignified life.

My families recipe has been adapted over the years to accomodate for different tasts (my grandma used to include raisins in the filling!) but overall remains close to traditional recipes.

As we continue through life, let us take a lesson from the cinnamon bun and practice the art of Fika. Slow down, connect, enjoy the company of others, and live a life of contentment.

References

Aaron. (2020, October 1). Celebrating Cinnamon with Sweden. Traversing Territories. https://traversingterritories.com/2020/10/04/celebrating-cinnamon-with-sweden/

Fika like a Swede - what Swedish fika is and 5 classic treats to try. (2025, June 10). Visit Sweden. https://visitsweden.com/what-to-do/food-drink/swedish-kitchen/all-about-swedish-fika/

Fredborg, I. (2021, October 1). Delicious Swedish cinnamon buns. Swedish Spoon. https://swedishspoon.com/cinnamon-buns/

How did sugar come to Sweden? (2015, August 14). Radio Sweden | Sveriges Radio. https://www.sverigesradio.se/artikel/6219710

Sweden. (n.d.). https://dairynews.today/milkypedia/country/se/

The history of Butter. (2019, September 4). Milky Day Blog. https://milkyday.com/blog/2019/09/04/history-of-butter/?srsltid=AfmBOoqmMdufk3ivs-nVaJh81xC_Cop4LEFPv9G_Pbqh11RjFq7rzzXH

THE STORY OF CINNAMON AND SWEDISH CINNAMON BUNS. (2023, September 24). Swedishness. https://swedishness.ch/blogs/news/cinnamon?srsltid=AfmBOoqqz7oH1er51hcoUyjOVXHxFRDYwHsmHFX-ZIoZ1QDHl7m2Veff

Weibull, J., Enander, H., Sandvik, G., Norman, L.T., Larson, S.R. (2025, January 16). history of Sweden. Encyclopedia Britannica. https://www.britannica.com/topic/history-of-Sweden

APPLE CRUMBLE

SALISH APPLE

The Salish apple was developed in Summerland, British Columbia, Canada by crossbreeding Gala and Splendour apple varieties (A Tale of Two Apples – Part Two, n.d.). The Gala apple – originating in New Zealand in the 1920's – has a mildly sweet flavour profile (Davison Orchards, n.d.), and the Splendour apple – also originating in New Zealand in 1946 as a result of a seed with unknown origin – has a primarily sweet flavour with slight tartness, traditionally served as a dessert variety ("Splendour Apples," n.d.). The Salish apple was developed by Agriculture and Agri-Food Canada (AAFC) scientists in 1981 with the goal of creating a delicious fruit tailored to local climate and agricultural conditions, including having a harvest date favourable to farmers. The successful of this crossbreeding demonstrates years of research, investments and cooperation between local BC farmers and the Canadian government (Canada 2012).

Named after the Salish-speaking peoples of the region, Summerland, the place of origin, is located on the territory of the Syilx (Okanagan) Nation ("Native-Land.ca | Our Home on Native Land," n.d.). The Salish apple is a crisp, juicy fruit with a tart, tangy but sweet flavour. The apple has a high-quality appearance with its vibrant pinkish red colouring and a plump round shape. Not only is it tasty, it also provides consumers with dietary fibre and the essential vitamins and minerals which can be absorbed equally as enjoyable fresh or cooked (NR Tree Fruits, n.d.). While the taste and texture of the Salish apple compliments apple crumble perfectly, any apple composed of a sweet and tart mixture with a firm texture will work for the dish.

FLOUR

Since time immemorial, flour has been a significant actor in the development of gastronomy. The manipulation of flour through human practices of grinding to produce a product suitable for cooking, shows the evolution of gastronomy from Ancient Times to Modern Day. Flour is the outcome of transforming diverse grains into a powdered substance, from which, vast quantities of dishes arise. In Ancient Times and the Middle Ages, flour was initially ground through querns, later transitioning to stone mills, then to watermills and windmills. During this period, flour was widely used for baked goods, bread making, brewing beer, and religious rituals. With the invention of the steam engine, during the industrial revolution, flour production became increasingly efficient and of higher quality, as it was able to be ground finer. The industrial revolution facilitated the widespread popularization of flour that can be seen in Modern Day ("History and Development of Flour" n.d.). Flour can be understood as a gastrocultural product, through its foundational role in many traditional dishes, ranging from pizza in Italy to Naan bread in India.

This apple crumble used all-purpose flour, which is a blend of hard and soft wheat produced by grinding the endosperm of a wheat kernel ("Types of Wheat Flour," n.d.). Due to the versatility of its composition – hard and soft wheat – and its nutritional values, containing carbohydrates, protein, iron and B-vitamins, it is an ideal choice for apple crumble.

OATS

Oats, originating as far back as 30,000 years ago, were primarily used for animal feed despite Ancient Greeks and Romans knowledge of it being edible. The Romans brought oats to Britain in the 1500s, where it became a staple breakfast item – cereal ("Oatmeal | Definition, Nutrition, Directions, & Facts | Britannica" 2025). It wasn't until the invention of rolled oats in 1877 that oats expanded in the Americas for human consumption, through the marketing of Quaker Oats Company. Quaker was a trademark symbolizing "good quality and honest value" ("Why Our Scottish Ancestors Didn't Eat Rolled Oats" 2024). The rolling machine popularized rolled oats by transforming them into flakes, through the process of flattening kernels with the hulls removed, making them more convenient and appealing to cook. ("Oatmeal | Definition, Nutrition, Directions, & Facts | Britannica" 2025).

Although oats, domesticated cereal grass, are typically associated with the Scottish, they thrive and are mainly cultivated in cool temperate regions, specifically, in Canada. Canada accounts for 15% of the worlds global production, second to the EU ("Oats | USDA Foreign Agricultural Service," n.d.). Oats became a staple for many countries during World Wars 1 and 2. They were used as "filler" foods to keep soldiers and citizens at home from starving. They were used as tool for rationing, added to both sweet and savory dishes, providing heartiness to meals (Wartime Wisdom for Modern Homemakers, n.d.). As well as being filling, oats are a great source of carbohydrates, proteins, fats, along with vitamins and minerals.

CINNAMON

Authentic cinnamon – the spice derived from the dried inner bark of a bushy evergreen tree – is native to Sri Lanka, although other varies of cinnamon exist in neighboring South Asian countries. In Ancient and Medieval times, cinnamon was traded, its value equal to that of gold. This can be attributed to its high antioxidant properties making it essential in traditional and herbal medicine practices across the globe. In Egypt it was also used for embalming and religious purposes as well as in medieval Europe for its warm, sweet flavour, becoming the most profitable spice in the Dutch East India Company. Harvesting for cinnamon has seldom changed from its traditional, labour intensive process of hand peeling, forming quills that are left to dry for days before being rolled tightly for further drying and sorting ("Cinnamon | Plant, Spice, History, & Uses | Britannica" 2025). Since the discovering of cinnamon to modern day it has been added to countless dishes ranging from sweet to savoury.

BROWN SUGAR

Light brown sugar, distinctive in its molasses content, creates a subtle caramel taste perfect for baked goods. Today, brown sugar is commonly manufactured by adding molasses back into white sugar, however natural brown sugar preserves its original molasses content (Brookes 2024). Traditionally, sugar was sourced from sugarcane in India, the Middle East, and Arab-controlled Southern Europe and traded through the Silk Road. Once sugar reached the wealthy Western Europeans, it became a luxurious commodity item consumed as a medicinal and culinary ingredient.

With the rise in popularity, Europeans began to colonize the New World in the late 15th century, seeking to expand the sugar industry. Ultimately succeeding, mechanization emerged allowing for mass quantities of sugarcane plantations, in which, enslaved labour expanded into the transatlantic slave trade. Sugar was a key item connecting Europe, Africa and the Americas; a legacy maintained today (Kernan and Scholar 2021).

ORIGINS OF APPLE CRUMBLE

Although apple crumble is thought to have originated in Britain – due to its popularization during WW2 – the first published recipe is found in a Canadian farmers magazine in 1917 (Farmer's Magazine (January-December 1917) 1917). Most remain unaware of this published record and regard the first mention of the dish to be in a British cookbook in 1924 (Lakhan 2023). The published Canadian recipe consists of apples, sugar, nutmeg, hot water, flour and butter. In accordance with the imposition of rationing on essential goods during WW2, its creation was a replacement to traditional apple pie which required many more ingredients.

CONSUMPTION PROFILES AND STATS

While apple crumbles consumption profile varies by recipe, it is generally found to be highest in carbohydrates, moderate in fats and lower in protein. It is also a source of many vitamins and minerals and provides a great source of fiber ("Apple Crumble - Eat This Much," n.d.). Apple crumble was recently voted the UK's favourite pudding of all time, reflecting a nostalgic comfort dessert – specifically found to be true for older generations (Lancashire Telegraph 2025). Apple crumble was also named a top dessert in Scotland (The National 2025) and is widely consumed in Canada and the United States – although it is usually called a crisp. In 2021, Canada produced 347,125 tonnes of apples (Government of Canada 2022a) and the UK produced 463,593 (Wikipedia 2025, "List of countries by apple production"). In 2022, Canada produced 5.2 million tonnes of oats (Government of Canada 2022b), while the UK produced 1 million tonnes (GOV.UK, n.d.). Both can be seen as major producers of the main ingredients of the dish, underscoring its prevalence in both countries.

BIO-GEO-PHYSICAL INFLUENCES

Originating at a time of food scarcity, this dish reflects the availability and the local customs of the time. The ingredients in the creation of this dish share a history that connects the Americas to European countries and their past colonies, Africa, the Middle East and other Asian countries. Culinary traditions of apple crumble vary by location; in Europe custards often accompany the dish, whereas in Canada and the United States, ice cream is a common addition.

Where crumble began and remains most popular is shaped through each place's climate and landscape. Apples – the core ingredient of the dish – thrives in a climatic zone of cold winters followed by a cool spring and summer where there is an abundance of sunlight (Wikifarmer, n.d.). Along with the cool, wet climate for apples, the same is needed for the cultivation of oats ("Oats" 2023). The historical context of popularity in both the UK and in Canada can be seen to have a direct link to its geographical terrain as both have the ideal climate and landscape to produce the main ingredients. Both countries feature lowlands with microclimates suitable for the long growing season ideal for both apple orchards and cereal grains (oats).

EVOLUTION AND ADAPTATION OF THE DISH

Though the dish began with simple ingredients, new recipes started to develop. New variations adding oats, nuts or different spices have been seen in recent years as well as adding other fruits or even substituting apple for another fruit. Some chefs have even experimented beyond a sweet crumble to a savoury one, adding bacon or cheddar cheese (Lakhan 2023). While these variations have become well liked, the traditional apple crumble remains arguably the most popular, and for good reason – it's sweet, simple and scrumptious.

INGREDIENTS

For apples:
3 apples
1/3 cups of brown sugar
2 tsp cinnamon
Dash of lime juice
For crumble topping:
½ cup of cold butter
½ cup of all-purpose flour
1/3 cups of oats
5 tbsp of brown sugar

RECIPE

Preheat oven to 180°C (350°F).
Peel and cut apples.
Place apples in a pan with brown sugar and cinnamon and a dash of lime juice. Cook on low medium for 5-7 minutes, stirring occasionally, until the apples are soft and sugar has slightly caramelized.
Transfer the apple mixture into a baking dish.
In a separate bowl combine flour, oats and brown sugar.
Cube the butter and add to the dry ingredients, mixing it in with fingers until it resembles a crumble consistency.
Sprinkle the crumble evenly over the apple in the baking dish.
Place baking dish in the preheated oven for 20-30 minutes until the top is golden.
Let dish cool for 10 minutes before serving.
Consider adding custard like the Brits or ice cream like Canada
Enjoy!

REFERENCES

A Tale of Two Apples – Part Two: The Salish Apple | Edible Garden Project. n.d. Accessed November 25, 2025. https://ediblegardenproject.com/a-tale-of-two-apples-part-two-the-salish-apple/.

“Apple Crumble - Eat This Much.” n.d. Accessed December 1, 2025. https://www.eatthismuch.com/calories/apple-crumble-907198.

Brookes, Catherine. 2024. “Everything You Need To Know About Brown Sugar.” Mashed, May 18. https://www.mashed.com/1583752/everything-you-need-to-know-about-brown-sugar/.

Canada, Agriculture and Agri-Food. 2012. “Innovation Bearing Fruit for Canadian Apple Producers.” News releases. October 13. https://www.canada.ca/en/news/archive/2012/10/innovation-bearing-fruit-canadian-apple-producers.html.

“Cinnamon | Plant, Spice, History, & Uses | Britannica.” 2025. November 8. https://www.britannica.com/plant/cinnamon.

Davison Orchards. n.d. “Royal Gala Apples.” Accessed November 25, 2025. https://www.davisonorchards.ca/apple-varieties/royalgala.

Farmer’s Magazine (January-December 1917). 1917. With Fisher - University of Toronto. Toronto: http://archive.org/details/farmersmagazine1917toro.

Government of Canada, Statistics Canada. 2022a. “Peeling Back the Numbers: Canada’s Apple Statistics.” October 28. https://www.statcan.gc.ca/o1/en/plus/2127-peeling-back-numbers-canadas-apple-statistics.

Government of Canada, Statistics Canada. 2022b. “The Daily — Production of Principal Field Crops, November 2022.” December 2. https://www150.statcan.gc.ca/n1/daily-quotidien/221202/dq221202b-eng.htm.

GOV.UK. n.d. “Chapter 7: Crops.” Accessed December 1, 2025. https://www.gov.uk/government/statistics/agriculture-in-the-united-kingdom-2022/chapter-7-crops.

“History and Development of Flour | ÖZMEN UN I We Produce the Foods of the Future with the Latest Technologies.” n.d. Accessed November 25, 2025. https://ozmenun.com/en/news/history-and-development-of-flour.

Kernan, Dr Sarah Peters, and Independent Scholar. 2021. Sugar and Power in the Early Modern World – Digital Collections for the Classroom. March 18. https://dcc.newberry.org/?p=16944.

Lancashire Telegraph. 2025. “Apple Crumble Is Crowned the Nation’s Favourite but Trifle Risks Extinction.” September 16. https://www.lancashiretelegraph.co.uk/news/national/uk-today/25469681.apple-crumble-crowned-nations-favourite/.

“Native-Land.ca | Our Home on Native Land.” n.d. Accessed November 25, 2025. https://native-land.ca/.

NR Tree Fruits. n.d. “Salish | Nelson-Rouleau Tree Fruits | Organic Fruits Farm in Cawston BC.” Accessed November 25, 2025. https://www.nr-organic-tree-fruits.com/product-page/salish.

Oatmeal | Definition, Nutrition, Directions, & Facts | Britannica.” 2025. October 30. https://www.britannica.com/topic/oats.

“Oats | USDA Foreign Agricultural Service.” n.d. Accessed November 30, 2025. https://www.fas.usda.gov/data/production/commodity/0452000.

“Oats: A Guide On How To Raise Productivity Of The Crop.” 2023. September 29. https://eos.com/crop-management-guide/oats-growth-stages/.

Slurrp. n.d. “The Origins Of The Humble Apple Crumble, Recipe Inside.” Accessed December 1, 2025. https://www.slurrp.com/article/the-origins-of-the-humble-apple-crumble-recipe-inside-1679573849246.

“Splendour Apples.” n.d. Accessed November 25, 2025. https://specialtyproduce.com/produce/Splendour_Apples_12906.php.

Tesia, Ria. 2022. “Apple Crumble Voted Best Dessert by Brits.” Hull Live, September 19. https://www.essexlive.news/news/uk-world-news/apple-crumble-voted-best-dessert-7596969.

The National. 2025. “Four in Ten Scots Don’t Know the Date of St Andrew’s Day, Poll Finds.” November 28. https://www.thenational.scot/news/25656503.4-10-scots-dont-know-date-st-andrews-day/.

“Types of Wheat Flour.” n.d. Wheat Foods Council. Accessed November 25, 2025. https://www.wheatfoods.org/resources/wheat-facts/types-of-wheat-flour/.

Wartime Wisdom for Modern Homemakers. n.d. “A Very Scottish Contribution to World War II.” Accessed November 30, 2025. https://wartimewisdom.com/blog/scottish.

“Why Our Scottish Ancestors Didn’t Eat Rolled Oats.” 2024. Read About Ancestral Tradition. Ancestral Kitchen, July 9. https://ancestralkitchen.com/2024/07/09/why-our-scottish-ancestors-didnt-eat-rolled-oats/.

Wikifarmer. n.d. “Apple Tree Climate Conditions.” Accessed December 1, 2025. https://wikifarmer.com/library/en/article/apple-tree-climate-conditions.

Wikipedia. 2025. “List of countries by apple production.” October 27. https://en.wikipedia.org/w/index.php?title=List_of_countries_by_apple_production&oldid=1318971496.

Chili Con Carne

a dish that illustrates a complex relationship

Figure 1

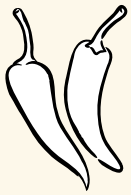
Chili con carne is a dish that is hard to miss, especially if you live in North America. Its ubiquity is matched by its variations; different regions of the United States are very passionate about what chili ought to include, with "beans or no beans" being an ongoing heated debate. Chili is especially associated with the identity of Texas, having been the state's official dish since 1977[1], and is also seen as a premier example of Tex-Mex cuisine. There is a great deal of culture surrounding chili con carne in the US, but the origins of this classic cuisine are somewhat murky, reflecting the complicated history of relations between the Indigenous people of modern-day Texas and Mexico, and the European colonists who altered the trajectory of history. The transformation of chili con carne since its inception has been significant, illustrating trends in population, culture and food accessibility. The story of the dish depends on its ingredients.

TEX-MEX?

Tex-Mex refers to a gastronomic tradition reflected by the fusion of Mexican culinary traditions along with the social and commercial interactions with Anglo settlers that occurred when Texas was an independent republic. The Hispanic people who were already living there wanted to retain their cultural practices with food and used ingredients that were available to them locally in Texas, as well as traditional flavors they could acquire through trade with Mexico. They sold some of these dishes commercially, which exposed the increasing Anglo population to new flavors[1]. Over time these dishes evolved their own unique cultural signifiers, influenced by the land on which they were prepared and the people who lived there.

Chili Peppers

Chili peppers have had a long relationship with the Indigenous peoples of North and South America since the plant was first domesticated over 10 000 years ago. The genus Capsicum is native to the hot, tropical regions of these continents, and are a very diverse crop. The cultivation history of chili peppers is long and complex, with some species potentially undergoing multiple cultivation events in the same area[2]. The pepper provides a fascinating example of plant domestication in middle America and has been a part of the human diet since 7500 BCE[3]. Several species of chili pepper, especially Capsicum frutescens and Capsicum annuum, were domesticated in Mexico and there is evidence that the different species were used interchangeably by traditional people living there[2]. For this reason, we will use the words 'chili pepper' in this article to generally refer to the types of peppers used in Mexican and Tex-Mex cuisine but note that there are five different species of domesticated Capsicum plants, each with independent stories of cultivation and importance to Central America, and South America, especially Boliva and Peru[4]. The events of domestication of Capsicum annuum, which includes familiar peppers like jalapeño, cayenne, bell pepper, and New Mexico chile, are believed to have occurred in Guerrero and the Yucatán Peninsula[2].



3 FUN FACTS ABOUT CHILI PEPPERS

1. For Indigenous people, chili peppers were eaten as a vegetable and used to season more complex dishes, but also used as a traditional medicine and as a natural dye
2. We often think of chili peppers as the smaller, slender spicy peppers, like cayenne or perhaps jalapeño, but the sweet bell pepper is a member of this species as well
3. It is unlikely that the word chili pepper is connected to the country of Chile, and the word originates from central America[3]

Colonial History

Chili peppers gained a new audience when the Spaniards made contact in the New World. They would've been one of the earliest novel foods the foreigners encountered, with Christopher Colombus likely being the first European to encounter chili peppers. They were seen as similar to the black and white pepper Europeans were familiar with, which is how they came to be known as chili peppers, despite the lack of a genetic relationship. The Spaniards took chili peppers back to the Old World, where they became popular as a flavor enhancer and traditional pepper substitute. Eventually they were cultivated on a mass scale across many countries which continues to this day[3].

Figure 2

Meanwhile, back in North America, the Spaniards continued to shape the trajectory of chili peppers as a food. The Indigenous peoples living on the land now known as Texas were largely nomadic and may have foraged wild peppers but didn't cultivate them in a strict sense. When the Spanish set up missions in an effort to convert the natives to Catholicism, they farmed crops like maize and chili peppers, which over time impacted the diets and cuisine of the people that transitioned to this more sedentary lifestyle[1]. We see the form of chili peppers evolve again as the colonies of Mexico and the US expanded over hundreds of years, and robust trade routes developed. Chili peppers were a significant good coming into the States from Mexico and were generally dried after harvest as it made them easier to preserve in transport[1].

The Rise of Chili Powder

Of course, the chili format that many of us are familiar with is chili powder, so where did that come from? The person given credit for innovating and industrializing chili powder was actually a German man named William Gebhardt, who lived in San Antonio, and was prompted to create the product due to the seasonal variability of dried chili peppers coming from Mexico[1]. In the beginning, he ground the chilis into powder, which kept them self-stable for far longer, and started selling it as “Tampico Dust” in little glass bottles[5]. Ultimately his operations expanded, and production of the chili powder and other products increased significantly, greatly increasing the spread of this flavor across the country.

Figure 6

Figure 3
Jalapeño

Figure 4
Bell Pepper

Figure 5
Cayenne

Modern Chili Peppers

Today, the majority of commercial chilis are Capsicum annuum[3], and through artificial selection, have diversified into many unique varieties, with different appearances and differing levels of heat. While some chili peppers are harvested and sold whole as vegetables, a majority are dried initially then prepared for further processing, often being ground up for spice mixes. Chili powder, curry powder, chili oleoresin and chili colour are all common food products created from the peppers. The capsaicin found in chili peppers has a variety of uses aside from adding spice to culinary creations. It is also incorporated in topical remedies for muscular pain, or for defense in pepper spray[3]. You have likely encountered chili peppers in some form even if you aren’t a fan of spicy food!

Beef

The “carne” in chili con carne simply refers to “meat’ in Spanish, but when it comes to Texas style chili, the association with beef is strong. Cattle aren’t native to Texas however, or to Mexico, so where did they come from? Like the chili pepper, cattle were also domesticated over 10 000 years ago, kicking off a long co-evolutionary history with humans. Two known domestication events occurred: one in Fertile Crescent leading to the taurine species and one in the Indus Valley leading to indicine. The taurine branch eventually spread across Europe, leading to many different breeds of cattle with different selected traits[6]. The Spanish brought Criollo cattle with them to the lands of future Mexico as livestock[7] and though they persist in the region to this day, their numbers are few. The conquistadors also brought the Texas longhorn early on, which has now become a symbol for the state of Texas. During the first few hundred years of colonization, many introduced cattle were able to reform wild herds and graze on the largely unsettled lands of Texas[1].

So how have cattle changed over time? The ancestor of cattle was the aurochs[8], and it was huge, just smaller than an elephant. As cattle were selectively bred by humans, their physiology began to visibly change. They evolved to have a smaller body size, as well as smaller, or even a lack of horns[9]. The main changes observed in the animals over time were ones that improved them for human consumption. from the rate at which cattle grow, to how efficient they are at turning feed into poundage. Cattle being bred primarily for meat is a more recent phenomenon and has led to changes in carcass quality. There is now more focus on marbling of fat with muscle in the beef, which affects tenderness, juiciness and flavor. On the other hand, the demand for leaner cuts of meat has also risen, as consumers seek more healthier options for their protein sources[10]. If there are changes in consumer trends in the future, it’s likely we will see continued evolution of beef on our dinner plate.

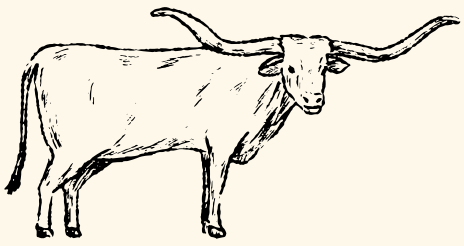


Figure 7

Connections to the land

The ingredients of chili con carne have been present in its region of origin for countless generations. Chili peppers, as well as beans and maize, were regularly consumed by Indigenous people in the Texas as a staple food. Chilis in particular were traditionally used as a condiment or in sauces as a primary form of sustenance. Cattle may not have been native to Texas but were able to thrive in the grasslands there for centuries without intervention by humans[1]. In this sense, chili con carne is a true reflection of the bounty of the land.

Mythic Origins

Chili con carne may feature ingredients of Indigenous foods, but things didn't start coming together for the dish until much later in the timeline. When Texas became part of the United States in 1845, a vast level of change began to occur in the area. Large numbers of Anglos came to settle in the state, population hubs such as San Antonio were developed significantly, and the introduction of railroads brought in trade, along with thousands of outsiders. Mexicans became a minority in Texas, but the largest populations of them lived along the border, and in San Antonio[1]. Due to their minority status, Mexican residents were invested in preserving their culture, and the proximity to Mexico, along with direct trade aided them in doing so. These conditions create the set up for the purported origin story for chili con carne. In San Antonio in late 19th century, Mexican women were said to have set up "chili stands" in the plazas of the city and would sell street food to working people as well as tourists passing through. This included a dish called chili con carne, which likely started out as a stew of red chiles, cumin, oregano, and beef, with a side of beans[11]. This may have been the first experience with Mexican cooking for visitors to San Antonio, and the chili stands served as a memorable takeaway for tourists during this era.

There were a many of tales told of the so called “Chili Queens” and the wildly spicy and hygienically questionable food they sold[12]. Despite the controversial reviews, Texas used this narrative to market the city for tourism and even sent the “Chili Queens” and their stalls to the Chicago World’s Fair to represent Texas cuisine in 1893[1]. This claiming of chili as a Texan cultural food created a shift in how the dish was viewed and prompted its subsequent evolution. The exposure it received lead to recipes for chili appearing in cookbooks across many American cities. Due to regional availability of ingredients, as well as local preferences, the notion of what chili was becoming increasingly diverse. Chili also began to be sold as a canned ready-made food, at first by the same company that industrialized chili powder[5].

In 1947, the Chili Appreciation Society was founded in Dallas, notably by two Anglos. Their stated mission was to spread awareness of the Texas style chili preparation, and to improve the overall quality of chili in restaurants across the US. By the mid-1900's chili had become widespread at Mexican restaurants across the country. It has even been incorporated into fast food restaurants in Canada and the US, and to this day is a dish consumed by all social classes[1]. Chili has been thoroughly embraced in North America, though undoubtably some of the identity of its place of origin has been lost in adaptation. Throughout the rest of the world however, chili is advertised as Mexican food, increasing knowledge of Mexican Cuisine and gastronomy through this iconic Tex-Mex dish[11]

Recipe

My primary experience of chili con carne comes from my own childhood, when my mom would make the dish for our family dinner. Her recipe is based on one from the 6th edition of Joy of Cooking (1975)[13], with a few tweaks for more modern tastes.

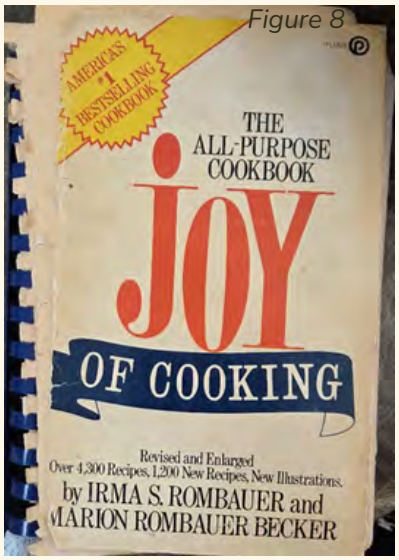


Figure 8


Figure 9

Ingredients:

·1-2 lbs lean ground beef
·1 onion, chopped
·1 clove garlic, chopped
·1 ¼ cups canned stewed tomatoes
·2 cups canned kidney beans
·2 cups canned pinto beans
·¾ tsp salt, add more to taste
·1 bay leaf
·2 tsp chili powder, add a little (or a lot) more to taste

Directions:

·Combine beef, onions and garlic in a large soup pot and stir over medium heat until meat is browned
·Add the remaining ingredients, mix well and bring to a boil
·Reduce heat to low, cover with a lid, and allow chili to cook for about one hour
·Serve hot, add your favorite toppings such as shredded cheese, green onions, sour cream, or avocado

References

1.Calleja Pinedo, M. (2011). The economic and cultural interdependence of Texas and Mexico: the case of chili con carne. Caravelle (1988), 96, 217–238.
2.Chiou, K. L., Lira-Noriega, A., Gallaga, E., Hastorf, C. A., & Aguilar-Meléndez, A. (2024). Interdisciplinary insights into the cultural and chronological context of chili pepper (Capsicum annuum var. annuum L.) domestication in Mexico. Proceedings of the National Academy of Sciences - PNAS, 121(47), Article e2413764121. https://doi.org/7.1073/pnas.2413764121
3.De, A. K. (2003). Capsicum : the genus Capsicum. Taylor & Francis. https://doi.org/10.1201/9780203381151
4.Scaldaferro, M. A., Barboza, G. E., & Acosta, M. C. (2018). Evolutionary history of the chili pepper Capsicum baccatum L. (Solanaceae): domestication in South America and natural diversification in the Seasonally Dry Tropical Forests. Biological Journal of the Linnean Society, 124(3), 466–478. https://doi.org/10.1093/biolinnean/bly062
5.Schoensee, R. (2017). The legacy of Gebhardt Mexican Foods: Pioneers of chili powder. Texas State Historical Association. https://www.tshaonline.org/handbook/entries/gebhardt-mexican-foods-company
6.Pitt, D., Sevane, N., Nicolazzi, E. L., MacHugh, D. E., Park, S. D. E., Colli, L., Martinez, R., Bruford, M. W., & Orozco-terWengel, P. (2019). Domestication of cattle: Two or three events? Evolutionary Applications, 12(1), 123–136. https://doi.org/10.1111/eva.12674
7.Armstrong, E., Rodriguez Almeida, F. A., McIntosh, M. M., Poli, M., Cibils, A. F., Martínez-Quintana, J. A., Félix-Portillo, M., & Estell, R. E. (2022). Genetic and productive background of Criollo cattle in Argentina, Mexico, Uruguay and the United States. Journal of Arid Environments, 200, Article 104722. https://doi.org/10.1016/j.jaridenv.2022.104722
8.Xia, X., Qu, K., Wang, Y., Sinding, M.-H. S., Wang, F., Hanif, Q., Ahmed, Z., Lenstra, J. A., Han, J., Lei, C., & Chen, N. (2023). Global dispersal and adaptive evolution of domestic cattle: a genomic perspective. Stress Biology, 3(1), Article 8.
9.Pedersen, S. (2015, August 10). Origins and evolutionary stages of modern-day cows. Vettimes. https://www.vettimes.com/news/vets/livestock/origins-and-evolutionary-stages-of-modern-day-cows
10. Hames (Macmillan), K. (2024, January 30). Enhancing carcass quality in beef cattle through genetic selection. Livestock Gentec. https://livestockgentec.ualberta.ca/2024/01/30/enhancing-carcass-quality-in-beef-cattle-through-genetic-selection/
11. Pilcher, J. M. (2001). Tex-Mex, Cal-Mex, New Mex, or Whose Mex? Notes on the Historical Geography of Southwestern Cuisine. Journal of the Southwest, 43(4), 659–679.
12. Gabaccia, D. R., & Pilcher, J. M. (2011). “Chili Queens” and Checkered Tablecloths. Radical History Review, 2011(110), 109–126. https://doi.org/10.1215/01636545-2010-028
13. Rombauer, I. S., & Becker, M. R. (1975). Joy of Cooking (6th ed.). Bobbs-Merrill.

Photos Cited

Figure 1: https://www.bbcgoodfood.com/recipes/collection/chilli-con-carne-recipes
Figure 2: https://www.thespruceeats.com/types-of-red-chiles-2342639
Figure 3: https://www.foodbasics.ca/aisles/fruits-vegetables/vegetables/peppers-zucchini-eggplant/jalapeno-pepper/p/4693
Figure 4: https://www.foodbasics.ca/aisles/fruits-vegetables/vegetables/peppers-zucchini-eggplant/red-bell-pepper/p/4088
Figure 5: https://www.bienmanger.com/2F49721_Organic_Red_Cayenne_Pepper.html
Figure 6: https://www.tshaonline.org/handbook/entries/gebhardt-william-f
Figure 7: https://texashistory.unt.edu/ark:/67531/metapth494162/
Figure 8: A photo I took of my mom’s copy of Joy of Cooking
Figure 9: https://sweetlysplendid.com/chili-recipe/

Eggs Benedict

The Ultimate Hangover Cure

For decades Eggs Benedict has been a popular dish for those looking for a hearty, decadent breakfast. The traditional eggs benedict consists of sliced ham topped with two poached eggs and hollandaise sauce, all sitting on a split English muffin. Buttery, creamy, and rich, all thanks to the Hollandaise sauce, the Eggs Benedict is a staple in many brunch menus across North America. But there was a time when this deliciously eggy combination was unknown to us, so when and where did the Eggs Benny come to be?

Before The Benny There Was The Bird

Eggs serve as the foundation for many morning meals, including the Eggs Benedict. However many may not know that this key ingredient has deep evolutionary and agricultural roots. The modern egg that is used in cooking today exists as a product of the domestication of the red junglefowl. The domestication of this bird began around 5,400-7,400 years ago in regions now known as China, India, and Southeast Asia. These were early settled farming communities, growing crops like millet and rice, creating inviting environments where the wild red jungle fowl

frequently interacted with people (Wang et al., 2020). In the warm, humid climate, red jungle fowl thrived living in the forest-edge habitats, where they could access spillage from the nearby crop farms. As these communities expanded, chickens began spreading along early exchange networks throughout Asia (Storey et al., 2012). The domestication of the junglefowl was appealing to these communities because it provided a reliable food source, such as the eggs and meat. However, domestication wasn't driven only by the need for food. Cockfighting was also common in these communities and served as a form of social entertainment. People often bet on these matches and traded highly valued fighting roosters, which made the bird very economically valuable. After domestication, the early movement of chickens (and therefore eggs) along human trade and migration routes expanded into more long-distance trade routes (Storey et al., 2012). Chickens reached the Mediterranean by 800 BCE, and then gradually introduced to the Americas through European colonization, becoming an integral part of colonial food systems.

Farmers, after recognizing the potential of the species, began selectively breeding for traits like greater egg production, larger size, and faster growth. Over time this created the wide variety of chicken breeds that exist today, and the results are seen in the delicious, large, and reliable eggs used in Eggs Benedict.

Beloved Butter

Butter is a solid emulsion of fat globules, water and inorganic salts, and is produced by the churning of cream (Britannica, 2025). Butter is the main fat in the body of hollandaise sauce. Hollandaise is an emulsified sauce, which means it's made by combining egg yolks, melted butter (fat), and an acid (usually lemon juice or vinegar). The egg yolks act as a glue, so that the water and fat can blend smoothly instead of separating. The butter controls the flavour and texture of the sauce, so let's explore the history and culture of this key ingredient. The common theory surrounding the invention of butter is that it was accidental. Nomadic people

would transport milk long distances by horseback. The constant movement caused the cream to separate from the milk, and eventually churn into butter (Churncraft, n.d.). This occurred in regions around the Near East such as Ancient Mesopotamia, The Fertile Crescent, Levant and others. These areas had some of the earliest domesticated cattle, and archaeological residues show the processing of milk fats (Evershed et al. 2008). Once the domestication of cattle became more widespread, butter practices started popping up in other regions with pastoral nomadic cultures like Egypt, Sudan, Pakistan and more. Over

time the use of butter travelled through continents, and it gained a particular importance in Northern Europe. Since olive oil was scarce or unavailable in these regions, and the climate allowed butter to keep for long period of time, by the Middle Ages butter was a dietary staple and important trade commodity, leading to the introduction of butter into France, England and the Nordic regions. It became a defining feature in things like French sauces and English pastries, setting the stage for later dishes like hollandaise.

Bio-geo-physical influnces

Eggs Benedict may have been created in New York, but the dish is the product of broader environmental conditions that made its ingredients possible. The northeastern United States has long been a region perfect for dairy farming, with mild summers and cooler winters that are suitable for cattle herds and butter production (Winsten et al., 2010). The abundance of butter allowed French-inspired sauces like hollandaise to flourish in American restaurant kitchens. Poultry farming was also expanding rapidly across the United States in the 1800s (BackyardPoultry, 2021), meaning fresh eggs were widely accessible to hotels and restaurants in cities like New York. Wheat, which is the base of the English muffin, was grown extensively across the northern U.S. and Canada. Even lemons, though not grown in New York, were consistently available due to trade networks within the U.S., especially from Florida and California. Because New York was a major port city with much access to domestic and international ingredients, it became the perfect environment for rich, indulgent dishes like Eggs Benedict to be born.

The Hatching of Eggs Benedict

It's hard to pinpoint the exact origin of The Eggs Benedict, as there are multiple conflicting stories detailing the creator and birth place of the dish. One of the more widely told stories begins as Delmonico's Restaurant in New York City. It began as a small shop selling classic pastries, fine coffee and chocolate, bonbons, wine and liquor and even Havana cigars, all operated by the Delmonico brothers, who were Swiss born. Their growing success allowed them to purchase the triangular pot of land between Beaver, William, and South William Streets, where they opened the fine dining steak house, known today as Delmonico's. Mr. and Mrs. LeGrand Benedict were regulars of Delmonico's in the 1860s. One day. Mrs. LeGrand Benedict expressed her

Charles Ranhofer

boredom with the menu, stating that she wanted something new for her lunch. After discussing with Charles Ranhofer, the chef de cuisine at the time, came up with the Eggs Benedict to satisfy her needs (The Old European). The recipe was later written up in his cookbook called The Epicurean. In the book, the recipe reads, "Cut some muffins in halves crosswise, toast them without allowing them to brown, then place a round of cooked ham an eighth of an inch thick and of the same diameter as the muffins one each half. Heat in a moderate oven and put a poached egg on each toast. Cover the whole with Hollandaise sauce." (6 Sqft). Another story in competition for the Eggs Benedict creator title, goes to Lemuel Benedict. Lemuel was a retired wall street broker who in 1894 went to the Waldorf Hotel in search of a hangover cure. He ordered buttered toast, poached eggs, crisp bacon and in his words, "A hooker of hollandaise sauce" (6 Sqft). The maitre d', Oscar Tschirky was impressed by this order, and thought it looked appealing, so after switching the bacon for Canadian ham, and replacing the toast for English muffins, he added it to the menu.

Cultural Influences

The creation of Eggs Benedict also reflects the cultural practices of late 19th century New York. The city's upscale hotels and restaurants catered to wealthy guests who expected refined, innovative meals. French-trained chefs, who were common in elite American kitchens at the time, brought classical European techniques with them, hollandaise being one of the five foundational "mother sauces" in French cuisine. The rise of leisurely morning weekend dining also played a big role, as brunch was becoming fashionable within New York's elite. Eggs Benedict fit into this culture perfectly. It's rich enough to feel indulgent, yet still tied to breakfast conventions. The competing origin stories from Delmonico's and the Waldorf Hotel reflect the true spirit of this iconic era, when restaurants prioritized experimenting, customizing, and elevating comfort foods to satisfy their guests.

The never-ending variations

Since its creation, Eggs Benedict has evolved into countless variations that reflect the cuisines and ecologies of different places. One of the most common adaptations is Eggs Florentine, which replaces ham with spinach. The term "Florentine" dates back to French cuisine, where it traditionally refers to dishes served with spinach, an ingredient associated with Italian culinary identity. Coastal regions developed Eggs Royale, substituting smoked salmon for ham, tying the dish to local fishing cultures, particularly in the Pacific Northwest and Atlantic Canada. Modern California-style Benedicts often feature avocado and tomato, reflecting West Coast agriculture and contemporary preferences for fresher, lighter foods. There are even Irish Benedicts (with corned beef), Southern Benedicts (with biscuits and gravy), and many vegetarian or vegan interpretations. These variations show how ingredients from different landscapes, climates, and cultural traditions continue to shape the Benedict, allowing it to adapt while remaining recognizable. What began as a New York brunch innovation is now a global template, constantly reinterpreted according to local tastes and available resources.

The Recipe

Today, there are many forms and variations of the Eggs Benedict. My recipe is inspired by the Florentine Eggs Benedict from OEB Breakfast. This dish had smashed avocado topped with a bright tomato jam. that was the most memorable Benedict I've ever had and I've been dying to go back ever since. I tried to replicate it to my best ability, except for the tomato jam

Ingredients

Ingredients for the benny

- 2 large whole eggs
- 1 English muffin, split
- 1 half avocado, thinly sliced
- 1 cup spinach
- 2 tablspoons vinegar

Ingredients for hollandaise

- 1 ½ eggs yolks
- ½ tablespoon lemon juice
- ½ stick unsalted butter, melted
- Pinch of salt and pepper

Directions

Prepare the spinach: in a skillet, heat olive oil over medium heat. Add fresh spinach and saute until wilted, about 2-3 minutes. Remove from heat and set aside

Toast the english muffins: split the english muffin and toast until preferred crispness

Prepare the hollandaise sauce: in a glass bowl, whisk egg yolks until light lemon yellow and slightly thickened, about 1 minute (All Recipes). Squeeze some lemon juice in ½ - 1 tablespoon, depending on how tart you like your sauce. Place over a simmering pot of water, ensuring the bowl doesn't touch the water to prevent curdling. Slowly whisk in 2 tablespoons of melted butter, mixing until smooth and creamy. Season with salt and pepper to taste

Poach the eggs: fill a large pot with 3-4 inches of water, bring to a simmer and add vinegar. Break each egg and carefully place it into the water. Cook for 2.5 to 3 minutes, for your desired yolk consistency. Remove with a slotted spoon and set aside on a paper towel to soak up excess water. Whirlpooling the water is optional

Assemble the dish: top the split english muffin with 3-4 slices of avocado, wilted spinach, and your two poached eggs. Cover with a healthy drizzle of hollandaise and a little sprinkle of salt and pepper. Enjoy it while it's warm!

References

Siciliano-Rosen, L. (n.d.). Hollandaise sauce. In Encyclopaedia Britannica. Retrieved from https://www.britannica.com/topic/hollandaise-sauce

Schulz, D. (2017, October 20). How an 1894 Hangover Created an Eggs Benedict Controversy in New York City. 6sqft. https://www.6sqft.com/how-an-1894-hangover-created-an-eggs-benedict-controversy-in-new-york-city/

The History of Eggs Benedict. (n.d.). BackThen History. https://www.backthenhistory.com/articles/the-history-of-eggs-benedict

Our History. (n.d.). TheOriginalDelmonicos.com. https://www.theoriginaldelmonicos.com/our-history/

A Brief History of Butter. (n.d.). Churncraft Journal. https://churncraft.com/blogs/the-churncraft-journal/a-brief-history-of-butter

Trends in the Northeast dairy industry: Large-scale modern confinement feeding and management-intensive grazing. Winsten et al., 2010. American Dairy Science Association doi: 10.3168/jds.2008-1831

What Is the History of the Domestic Chicken? (n.d.). CyChicken. https://cychicken.com/article/what-is-the-history-of-the-domestic-chicken

Hochman, K. (2010, September). English Muffin History. The Nibble. https://www.thenibble.com/reviews/main/breadstuffs/thomas-english-muffins.asp

Coogan, K. (2021, October 12). The Evolution of Poultry Farming in America. Backyard Poultry. https://backyardpoultry.iamcountryside.com/poultry-101/evolution-of-poultry-farming-in-america/

Evershed, R., Payne, S., Sherratt, A. et al. Earliest date for milk use in the Near East and southeastern Europe linked to cattle herding. Nature 455, 528–531 (2008). https://doi.org/10.1038/nature07180

Wang, MS., Thakur, M., Peng, MS. et al. 863 genomes reveal the origin and domestication of chicken. Cell Res 30, 693–701 (2020). https://doi.org/10.1038/s41422-020-0349-y

Storey, A., Stephen J., Bryant D., et al. Investigating the Global Dispersal of Chickens in Prehistory Using Ancient Mitochondrial DNA Signatures. (2012) doi: 10.1371/journal.pone.0039171

ES 347

GASTRONOMIC JOURNAL - 2025 EDITION

HAWAIIAN PINEAPPLE PORK

PASSED DOWN, GLAZED UP

Figure 1

MORE THAN A RECIPE

A 4TH GENERATION FAMILY MEAL

THIS MEAL COMES FROM MY GREAT-GRANDMOTHER DOROTHY POWELL'S RECIPE BOOK (CIRCA 1950), AND WAS PASSED ALONG TO HER BY HER FRIEND AND NEIGHBOUR, ISOBEL REIMER. DOROTHY, AN IMMIGRANT FROM ENGLAND, SETTLED IN WINNIPEG, MANITOBA, WITH MY GREAT-GRANDFATHER, GEORGE, AND TOGETHER THEY RAISED MY GRANDMOTHER, WENDY.

A SIMPLE DISH, HAWAIIAN PORK CAME TO SYMBOLIZE FAMILY AND TOGETHERNESS FOR THE POWELLS. AS MY GRANDMA GREW UP AND EVENTUALLY MARRIED MY GRANDPA, GEORGE PARKHURST, THE MEAL BECAME A CHERISHED STAPLE FOR FAMILY GATHERINGS. AS DEVOTED BLUE BOMBERS FANS, THE PARKHURSTS AND POWELLS WOULD OFTEN COME TOGETHER ON GAME DAYS, SHARING THIS DISH AFTER CELEBRATING AN EARLY-'60S BLUE BOMBER WIN.

IN 1976, MY GRANDPARENTS AND THEIR TWO CHILDREN MOVED TO THE GROWING CITY OF VICTORIA, BC. NO LONGER CLOSE TO THE WARMTH OF FAMILY OR THE EXCITEMENT OF WINNIPEG'S FOOTBALL GAMES, HAWAIIAN PORK BECAME A MEAL SHARED WITH FRIENDS AND NEIGHBOURS. ALTHOUGH WENDY LIVED IN QUALICUM BEACH AND GEORGE REMAINED IN VICTORIA, FAMILY DINNERS BECAME A SUNDAY TRADITION. GROWING UP, I FELT THE FORTITUDE OF SEEING MY GRANDPARENTS WEEKLY; THOUGH I SOMETIMES FOUND THE FREQUENCY INCONVENIENT, THOSE SUNDAY DINNERS BECAME SOME OF MY MOST CHERISHED MEMORIES. IN 2020, I MOVED TO VANCOUVER FOR UNIVERSITY, SPLITTING FROM THE FRIENDS AND FAMILY I HAD ALWAYS KNOWN. LATER THAT YEAR, MY GRANDPA PASSED AWAY FROM CANCER, LEAVING BEHIND A LIFE AND LEGACY I ONLY HOPE TO LIVE UP TO; AND WHILE FAMILY DINNERS BECAME AN INFREQUENT GIFT, SHARED BY FEWER THAN BEFORE, HAWAIIAN PORK SERVES AS A REMINDER OF THE LAUGHTER, SMILES, AND LOVE SHARED WITH THOSE I HOLD DEAR. I CARRY THE RECIPE FORWARD, OCCASIONALLY TESTING IT OUT WITH ROOMMATES AND TEAMMATES, OFFERING A CHANCE TO SHARE THE SAME WARMTH AND CONNECTION THAT I HAVE BEEN SO FORTUNATE TO RECEIVE.

KEY

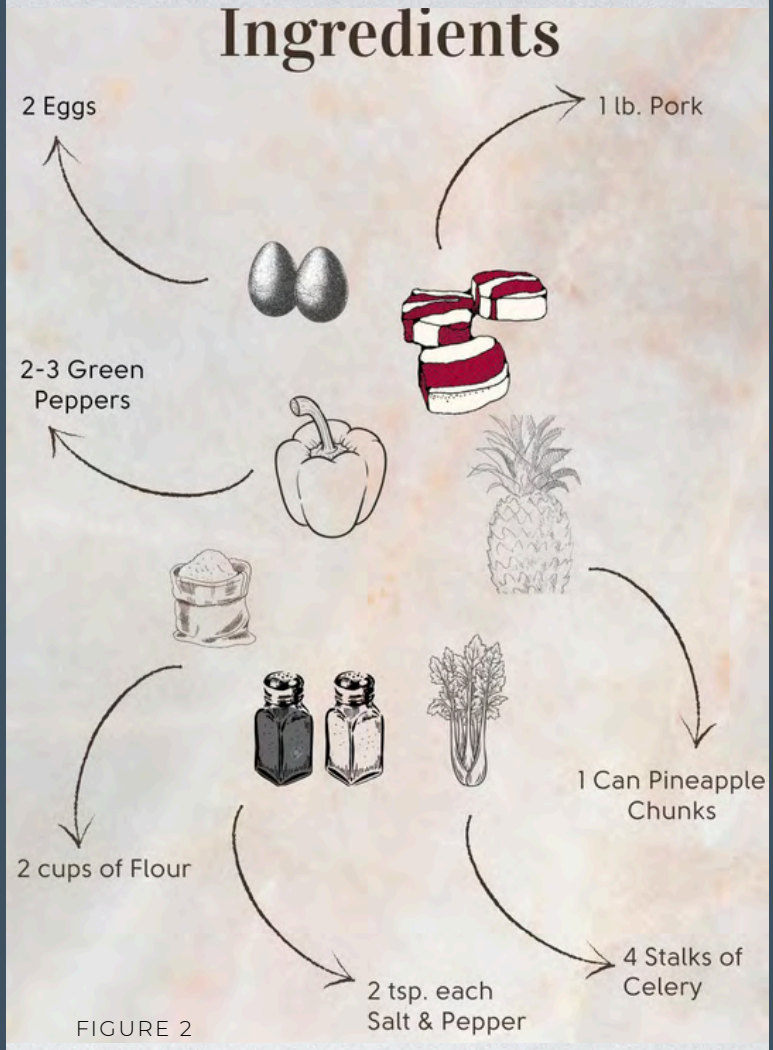


FIGURE 2

Preparation

Start by cutting the pork into 1-inch cubes and setting them aside. In a bowl, whisk together eggs, flour, a pinch of salt, and a dash of pepper until you have a smooth, creamy batter. Heat a splash of oil in a frying pan and dip each pork cube into the batter, letting any excess drip off before carefully adding them to the hot oil. Fry the pork slowly, turning occasionally, until it's golden brown and crispy, then remove and drain on a paper towel. In a clean pan, sauté the green peppers and celery just until they're tender-crisp, then stir in ¼ cup of chicken bouillon. Add the fried pork back into the pan along with pineapple chunks and their juice, and let everything simmer gently for 10–15 minutes so the flavours meld together. Pour your prepared sauce over the mixture, cover, and simmer for another 5 minutes to let the sauce thicken and coat everything beautifully. Serve the sweet and savoury pork hot over steaming rice for a meal that feeds the family.

FIGURE 3

DID YOU KNOW?

CHARCUTERIE, THE CRAFT BEHIND BACON, HAM, SAUSAGES, PÂTÉS, TERRINES, AND MORE, ORIGINATED AS A WAY TO PRESERVE MEAT LONG BEFORE REFRIGERATION. ALTHOUGH THESE METHODS WERE ONCE PURELY PRACTICAL, TODAY WE PRIZE CHARCUTERIE FOR THE RICH FLAVOURS CREATED THROUGH CURING, SMOKING, AND SLOW PRESERVATION. THE TRADITION TOOK SHAPE IN 15TH-CENTURY FRANCE, WHERE FOOD-PRODUCTION GUILDS REGULATED WHO COULD MAKE WHAT[15]. CHARCUTIERS, THE GUILD DEVOTED TO PREPARED PORK PRODUCTS, CRAFTED A WIDE RANGE OF REGIONAL SPECIALTIES, FROM RILLETTES AND SAUSAGES TO BACON, TROTTERS, AND HEAD CHEESE. THE ONLY RAW PRODUCT THEY WERE PERMITTED TO SELL WAS UNRENDERED LARD, A REMINDER OF JUST HOW SPECIALIZED AND RESPECTED THE TRADE WAS.

FROM HOG TO HOME: A CULINARY JOURNEY

PIGS HAVE BEEN BY HUMANS' SIDE, OR RATHER, ON THEIR PLATES, FOR THOUSANDS OF YEARS. THEIR DOMESTICATION MARKED A TURNING POINT IN THE SHIFT FROM HUNTER-GATHERER SOCIETIES TO AGRICULTURAL COMMUNITIES. FIRST DOMESTICATED IN MESOPOTAMIA AROUND 13,000 BCE, PIGS QUICKLY BECAME A STAPLE OF EARLY SETTLEMENTS, SPREADING ACROSS EUROPE BY 1500 BCE[9]. THEIR ADAPTABILITY, RESILIENCE TO A VARIETY OF ENVIRONMENTS, AND OPPORTUNISTIC FEEDING HABITS MADE THEM ESPECIALLY SUITED TO DOMESTICATION. FAST-FORWARD TO NORTH AMERICA: IN THE LATE 19TH CENTURY, THE CHICAGO MEATPACKING INDUSTRY THRUST PIGS INTO THE SPOTLIGHT OF INDUSTRIALIZED FOOD PRODUCTION[12]. MECHANIZED SLAUGHTERHOUSES LOWERED CONSUMER COSTS AND HELPED POPULARIZE PORK IN AMERICAN HOUSEHOLDS, CEMENTING THE PIG'S ROLE AS A KEY PROTEIN SOURCE. TODAY, PIGS ARE THE SECOND MOST WIDELY CONSUMED ANIMAL IN THE WORLD, JUST BEHIND CHICKEN, CONTINUING A CULINARY LEGACY THAT STRETCHES BACK MILLENNIA[11].

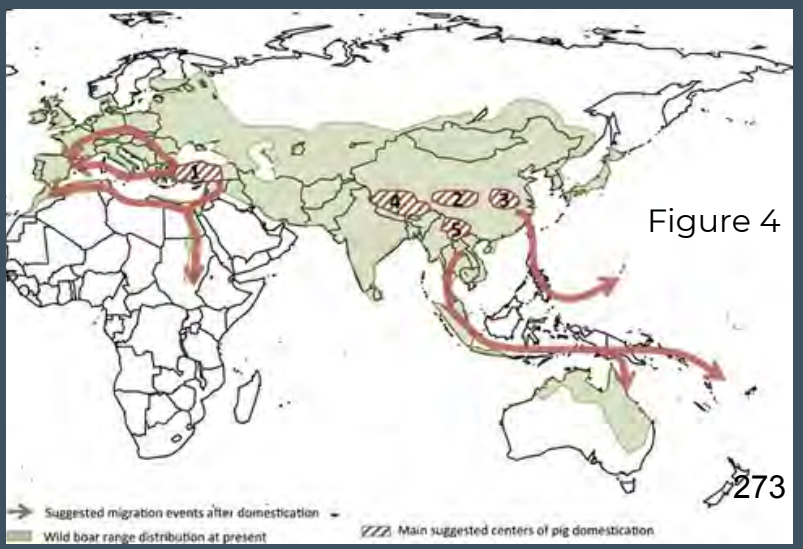


Figure 4

Figure 5

Pineapple's Brutal History:

While today, pineapples can be found down the road at your local grocery store for a relatively affordable price, prior to the 19th century, the tropical fruit was once considered a lavish delicacy by settlers. Behind its sweet flavour and sunny image, the pineapple carries a deep and brutal history shaped by colonial expansion, plantation labour, and exploitation, a truth my family's four generations of recipe were likely oblivious to[1].

The pineapple is indigenous to South America, with oral accounts tying it to the Paraná–Paraguay river basin region, which is now southern Brazil, Paraguay, and parts of northern Argentina; however, archaeological and genetic testing suggest that the Guiana Shield was the birthplace of the fruit's domestication, between 1200 - 800 BCE[2]. By the time of the 15th-century European conquest, the pineapple was widespread in South America and the Caribbean.

The fruit was first brought to Europe in 1496, upon Columbus' return from his second voyage to the Americas. It made quite an impression on King Ferdinand, claiming its taste was above all other fruits[5]. Word of the glorious pineapple would quickly spread through Europe, becoming a status symbol due to the difficulty of growing a tropical fruit in the continent's colder climate[3]. Horticulturists spent decades trying to produce variants that could push past the temperate limits; with efforts sometimes costing nearly $3,000 (in today's rate) per fruit[6]. The first recorded evolutionary cultivation of the fruit took place in the late 17th century by Charles Plumier, known as genus *Bromelia*[3].

Despite these horticultural evolutions, pineapple was primarily imported from African and East-Asian colonies, a product of the era's oppressive mercantilism. Following the invention of the steamship in the 1800s, the West Indies became the global hub for fruit production, exploiting the area's resources and people for colonial benefit[7].

"When life gives you lemons, sell them and buy a pineapple."

-Davin Turney

Following the occupation and settler population of North America, Hawaii became a central site for pineapple production. In the early 20th century, entrepreneurs like James Dole, founder of the Hawaiian Pineapple Company, transformed the islands into a global hub for the fruit. Dole and other American business interests played a direct role in undermining Hawaiian sovereignty, contributing to the violent establishment of a provisional government that favoured U.S. economic control[8]. On the plantations themselves, labourers, largely imported from Japan, China, and the Philippines, faced grueling conditions, low wages, and harsh oversight, a system built to maximize profit while reinforcing colonial hierarchies. Dole's operations helped cement pineapple as a major export commodity, feeding rising demand in North America, yet this prosperity came at the cost of Hawaiian self-determination and the exploitation of countless workers. While pineapple is now a staple household fruit, its history is inseparable from this legacy of violence, colonization, and labour exploitation.

The Science of Food

Selective Evolution of Pigs and Pineapple

Throughout history, humans have used selective breeding to enhance the product of their meal. While in previous centuries, these methods were much more modest, the rapid advancement of modern genetic technology has changed the food game as we know it. Let's take a look at how these two foods have been selectively bred.

MD2 Pineapple

For much of the 20th century, pineapple outside the tropics was almost entirely consumed from a can, and the Smooth Cayenne variety dominated both processed and limited fresh markets. Efforts to breed a better fresh pineapple began in 1961 at the Pineapple Research Institute in Hawaii, although the industry remained focused on Smooth Cayenne and only small trials explored alternatives[13]. When the institute dissolved in 1975, its hybrid seedlings were passed to member companies for further testing. After nearly six decades of work, no new cultivar could surpass Smooth Cayenne's global importance, yet two hybrid selections known as 73-50 and 73-114 quietly stood out. Developed from complex PRI hybrids and tested across Maui and Oahu, they were released to industry partners in 1980 and later renamed CO-2 and MD-2[13]. During the mid-1980s, MD-2 was introduced to Costa Rica, where determined researchers expanded plantings and began test marketing in the early 1990s. Its exceptional sweetness, low acidity, and consistent quality transformed the global fresh pineapple market, reaching hundreds of millions in sales by 1996[13]. Today, MD-2 has replaced Smooth Cayenne nearly worldwide and is grown extensively throughout Latin America, with Costa Rica emerging as the leading producer.

Pigs

Modern domesticated pigs, often called "large breed pigs," have been selectively bred over many generations to develop traits suited to different agricultural purposes. Commercial breeding programs typically cross lines such as the Duroc, Landrace, and Yorkshire to optimize growth rate, body size, and meat characteristics[14]. These pigs generally grow much larger and faster than their wild boar ancestors due to targeted selection for efficiency and consistency.

Outside of large commercial lines, "pastured breeds" like the Berkshire, Hampshire, and Mangalitsa have also been selectively bred, often for specific flavor profiles, hardiness, or adaptability to outdoor environments[14]. "Heritage breeds," such as the Tamworth, Red Wattle, and Large Black, maintain older genetic lineages and traits that were common before modern high-efficiency breeding became dominant. These heritage lines often exhibit slower growth rates, distinct body compositions, and other historical characteristics preserved through purebred registries[14].

Figure 6

Variations Throughout History

ONE DELICIOUS VARIATION OF THIS MEAL IS SWEET AND SOUR PORK, OR GOO LO YOK. ORIGINATING IN 18TH-CENTURY CANTONESE CUISINE, THE DISH BRINGS TOGETHER TENDER FRIED PORK, CRISP BELL PEPPERS, AND JUICY PINEAPPLE, ALL COATED IN A TANGY SWEET-AND-SOUR SAUCE. PINEAPPLE FIRST ARRIVED IN CHINA IN 1594, INTRODUCED BY THE PORTUGUESE COLONY OF MACAO, WHO HAD BROUGHT IT FROM BRAZIL[3]. TODAY, CHINA RANKS FIFTH IN THE WORLD FOR ANNUAL PINEAPPLE PRODUCTION[4].

IN NORTH AMERICA, THE NOW-ICONIC PAIRING OF PORK AND PINEAPPLE OWES MUCH TO THE RISE OF CANNED PINEAPPLE COMPANIES LIKE JAMES DOLE'S HAWAIIAN PINEAPPLE COMPANY; WHO, ALONG WITH COMPETITORS SUCH AS DEL MONTE, RAMPED UP PRODUCTION TO MEET GROWING DEMAND, AND THEN WORKED TO CREATE EVEN MORE. BY THE 1920S, THEY WERE ADVERTISING IN WOMEN'S MAGAZINES, PUBLISHING PINEAPPLE RECIPE BOOKS, AND SHOWCASING CREATIVE WAYS TO ENJOY THE FRUIT[2]. HAM AND PINEAPPLE BECAME ONE OF THESE POPULAR PAIRINGS, WITH THE HAWAIIAN PIZZA CAPTURING THE HEARTS AND STOMACHS OF MANY; AND CEMENTING ITSELF AS A BELOVED COMFORT-FOOD CLASSIC.

The Most Controversial Pizza

Figure 7

Love or Hate it?

Fun Fact

INTO THE 17TH CENTURY, PINEAPPLES WERE SO RARE AND COVETED IN EUROPE THAT PRESENTING ONE TO KING CHARLES II OF ENGLAND WAS CONSIDERED SUCH A MOMENTOUS OCCASION IT WAS IMMORTALIZED IN A PAINTING.

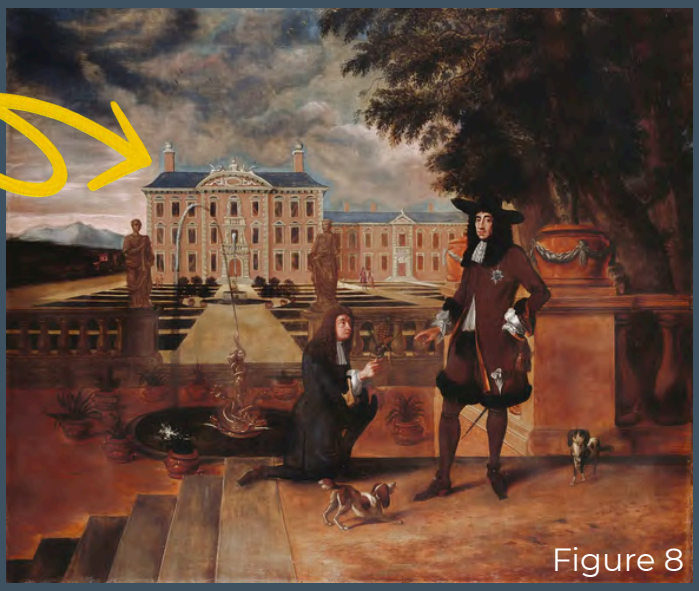


Figure 8

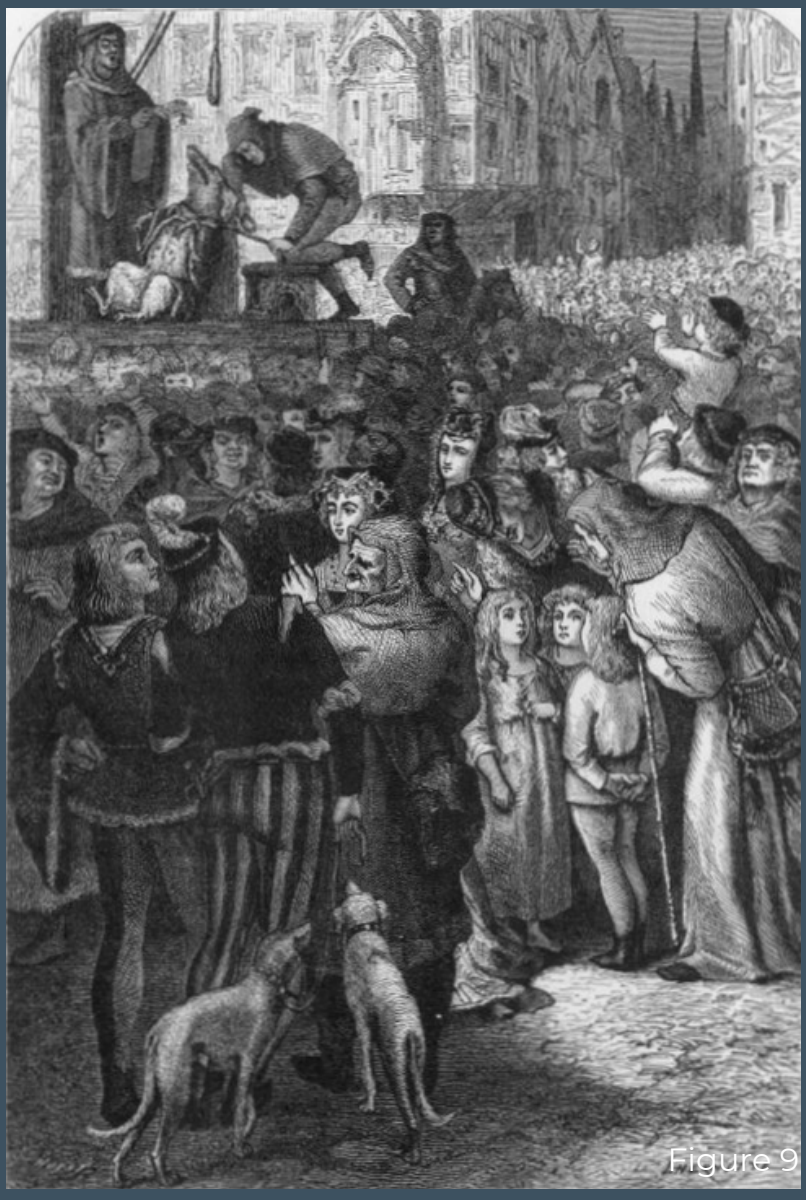


Figure 9

Not-So-Fun Fact

ON JANUARY 9, 1386, A PIG WAS PUBLICLY EXECUTED FOR KILLING AN INFANT. IT WAS 1 OF 15 SUCH INSTANCES TO OCCUR IN FRANCE BETWEEN THE 13TH AND 16TH CENTURY, WHERE A PIG WAS FORMALLY TRIALED FOR SUCH A CRIME.

THE MEALS THAT MADE US

IN THE END, HAWAIIAN PORK ISN'T JUST FOOD; TO ME, IT'S A MOMENT OF CONNECTION. WHETHER SHARED AROUND A CROWDED FAMILY TABLE, PASSED BETWEEN FRIENDS ON A WEEKNIGHT, OR ENJOYED WITH NEIGHBOURS WHO FEEL LIKE HOME, IT HAS BECOME THE BACKDROP TO THE STORIES I TELL AND THE MEMORIES CARRIED.

MEALS REMIND US THAT NOURISHMENT IS BOTH PHYSICAL AND EMOTIONAL, THAT THE ACT OF GATHERING MATTERS AS MUCH AS THE RECIPE ITSELF. MEALS BRING US CLOSER, STITCH COMMUNITIES TOGETHER, AND OFFER A PLACE TO RETURN TO, AGAIN AND AGAIN, WHERE WARMTH, LAUGHTER, AND BELONGING ARE ALWAYS ON THE MENU.

Figure 10

Figure 11

Figure 12

References

1. Okihiro, G. Y. (2010). Pineapple culture: a history of the tropical and temperate zones. Choice Reviews Online, 47(08), 47–4561. https://doi.org/10.5860/choice.47-4561

2. Lenz, P. (2025, June 27). A history of. . . pineapples. Histories. https://www.gethistories.com/p/a-history-of-pineapples

3. Jiang, Y. (2021, April 10). A Global History of The Pineapple. ArcGIS StoryMaps. https://storymaps.arcgis.com/stories/fd88a460a28343cca0206dbfa2f0de27

4. FAOSTAT. (2023). https://www.fao.org/faostat/en/#data/QCL

5. Bell, B. B. (2020, August 2). The rise, fall, and rise of the status pineapple. https://www.bbc.com/news/uk-england-53432877

6. Wilbur, K. (2022, July 20). Ham and Pineapple: A Long and Happy Marriage. TASTE. https://tastecooking.com/ham-and-pineapple-a-long-and-happy-marriage/

7. Blakely, J. (2021, January 28). The Prickly Meanings of the pineapple – Smithsonian Libraries and Archives / Unbound. https://blog.library.si.edu/blog/2021/01/28/the-prickly-meanings-of-the-pineapple/

8. Burns, E. C., & Price, A. M. R. (2025). The Routledge companion to art and the formation of empire. https://doi.org/10.4324/9781003414742

9. Texas Pork Producers Association. (2023, December 18). History of Pork - Texas Pork Producers Association. https://texaspork.org/history-of-pork/

10. MacHugh, D. E., Larson, G., & Orlando, L. (2016). Taming the Past: Ancient DNA and the study of animal domestication. Annual Review of Animal Biosciences, 5(1), 329–351. https://doi.org/10.1146/annurev-animal-022516-022747

11. World Food and Agriculture – Statistical Yearbook 2023. (2023). In FAO eBooks. https://doi.org/10.4060/cc8166en

12. New Roots Insitute. (n.d.). When did factory farming start and why does it still exist? | New Roots Institute. https://www.newrootsinstitute.org/articles/when-did-factory-farming-start-and-why-does-it-still-exist

13. Tong, P., & Ng, C. K. C. (2015). The MD2 (Super Sweet) pineapple (Ananas comosus). ResearchGate. https://www.researchgate.net/publication/342038927_The_MD2_Super_Sweet_pineapple_Ananas_comosus

14. Amills, M., Clop, A., Ramírez, O., & Pérez- Enciso, M. (2010). Origin and genetic diversity of pig breeds. Encyclopedia of Life Sciences. https://doi.org/10.1002/9780470015902.a0022884

15. Wassburg, S. (2021). Category: Charcuterie. THE FOOD HISTORIAN. https://www.thefoodhistorian.com/blog/category/charcuterie

Figure References

Figure 1. 12 Tomatoes. (2020, February 21). Hawaiian Pork Chop Sheet Pan. https://12tomatoes.com/hawaiian-pork-chops/

Figure 2. Compiled Visuals using Canva

Figure 3. Cristi. (n.d.). Dirty pig. Dreamstime. https://www.dreamstime.com/royalty-free-stock-image-dirty-pig-image21982286

Figure 4. Ramos-Onsins, S. E., Burgos-Paz, W., Manunza, A., & Amills, M. (2014). Mining the pig genome to investigate the domestication process. Heredity, 113(6), 471–484. https://doi.org/10.1038/hdy.2014.68

Figure 5. Filippone, P. T. (2023, May 26). What Are Pineapples? The Spruce Eats. https://www.thespruceeats.com/history-of-the-pineapple-1807645

Figure 6. Welch, S. (2023, April 28). Sweet and Sour Pork. Dinner at the Zoo. https://www.dinneratthezoo.com/sweet-and-sour-pork/

Figure 7. Wikipedia contributors. (2025, November 25). Hawaiian pizza. Wikipedia. https://en.wikipedia.org/wiki/Hawaiian_pizza

Figure 8. Lenz, P. (2025, June 27). A history of. . . pineapples. Histories. https://www.gethistories.com/p/a-history-of-pineapples

Figure 9. Headsman. (2013, January 9). 1386: The Sow of Falaise, seeing justice done | Executed Today. https://www.executedtoday.com/2013/01/09/1386-the-sow-of-falaise-seeing-justice-done-podcast/

Figure 10. Photo of my friends and I at Thanksgiving, 2022

Figure 11. Photo of the Powell and Parkhurst family dinner, date unknown.

Figure 12. Photo of the Powell and Parkhurst family dinner, date unknown.

La Poutine Québécois

Image 1: A social dish; a massive poutine shared on my friends birthday in 2017.

Authors note: The texture of poutine is crucial. The combination of crispy fries, rich gravy, and chewy, mild cheese offers a perfect, well rounded experience.

Ingredients
Fries:
3lbs of large potatoes (russet will do)
4 cups of oil or lard for frying
¼ tsp of salt
Gravy:
¼ cup of all purpose flour
1 Shallot, finely minced
2 cloves of garlic, finally minced
2 cups of broth of choice OR 1 cup of broth and 1 cup of pan drippings with the fat skimmed of the top
Optional but encouraged- herbs such as rosemary, and thyme
“Squeaky” cheese curds- 8 ounces

Humble origins and cultural absorption

While frequently referred to as a dish synonymous with Canadian culture, the humble roots of poutine are undeniably Québécois. Some may even say that poutine is a victim of cultural appropriation and that labeling the dish as Canadian or Québécois is political. Not acknowledging the true origins linking the beloved meal means risking underscoring key cultural context, cultural absorption, and ignoring the fact that some Québécois do not feel strongly about their Canadian identity. Many argue that Quebec has a distinct culture and society, and therefore poutine is a region specific dish. Acknowledging dishes as regional offers room for cultural context and knowledge which can enhance appreciation and enjoyment of dishes and additionally offers credit where it is due. This is why it is important to not dilute or simplify the history of cultural cuisines.

Multiple sources claim to be the original creator of this delicious dish, some offering humorous, anecdotal stories to contribute to conviction, such as one by Fernand Lachance (The Great Canadian Encyclopedia, 2014). He claims that a customer in a rush requested the cheese curds be tossed into his fry bag, to which Lachance responded “*ça va te faire une maudite poutine!*” (“that will make a damned mess!”) (The Great Canadian Encyclopedia, 2014). Regardless, we do know with certainty that poutine first appeared in rural, Centre-du-Québec region during the 1950s in snack bars. While now a widespread and beloved dish, poutine was originally believed to be an economically friendly, simple snack or meal. Today it can be found

in restaurants around the world, from fine dining to fast food, or even staring in food festivals, with endless possible adaptations; but as journalist Paul Wells wrote, “it’s become Quebec in a bowl, a shorthand symbol for the province”, poutine remains an iconic symbol of Québécois culture *(Poutine | the Canadian Encyclopedia, 2014)*. The name poutine is believed to be derived from “pouding” (French for pudding) because it describes a messy mixture/ variety of foods, and the title can still today be a French-Canadian slang for mess. Some argue that poutine follows a similar “rags-to-riches” story not unlike sushi or kimchi due to its original connotations of being cheap and messy, now glorified with all of Canada wanting to take credit.

Authors note:
While looking over various recipes, almost all of the options presented had titles along the lines “Classic Canadian Poutine” and were not labeled as Québécois dishes.

Further poutine controversy

Not only has poutine been used in stigmatization against Québécois, a minority group in Canada, but it was also a dish featured in the junk food shaming trend of the 2000s. Removal from the Québécois daily school cafeteria menus, due to its fat and salt content was one example of this. This restriction in student meal choice resulted in many rushing to acquire the beloved dish from other vendors over their short lunch period. A potential upside to this shaming of poutine is that the dish is viewed as a social affair. Often groups will order large sizes and multiple forks which creates an extra sense of community surrounding this food. This also encourages conversation around the experience of eating, often people will compare one location's poutine to another or even to the occasion prior they purchased it from the same vendor. This makes the poutine

Image 2: Map of the province of Quebec (Behiels, 2019).

experience not only delicious but also memorable. The social aspect, as Leong-Salobir *et al*. wrote; “taste not only exists on the tongue but is a dynamic social process that encompasses production, consumption, and reproduction.” *(Fabien-Ouellet, 2016)*. These social processes are significant to the gastronomic experience of poutine.

Image 3: One of my personal favorite variation with chicken strips and white sauce from Jones BBQ Victoria

Variations

Endless variations have since been adapted from the original recipe, some more traditional but with added elements such as green onions, bacon, chicken strips, pulled pork or kimchi. Others are a little further off script. For example, an Italian version, made with spaghetti sauce in place of gravy, or veggie poutine, featuring mushroom sauce and vegetables, various breakfast poutines, and additionally we can find “disco fries”, a variation made with shredded mozzarella instead of traditional cheddar cheese curds, found in New York and New Jersey. While creative freedom allows us to project our own cultural or personal tastes onto the dish, many advocate for a simplistic, traditional recipe which includes only crispy fries, fresh, squeaky cheese curds, and smooth chicken or beef based gravy, however, each classical poutinerie offers their own version. This is often accomplished through secret house gravy recipes, oil varieties and frying methods, and sourcing of cheese curds. In the article “Poutine Dynamics”, Nicolas Fabien-Ouellet argues that because of these inspirational variations which demonstrate the dishes culinary potential, the social processes, popularity, and the way that poutine has become a label to refer to a way to prepare food, that poutine could be recognized as a new dish classification on the big scale *(Fabien-Ouellet, 2016)*.

What's in a poutine?

Proximity to cheese curd producing fromageries of Québec was central to the development of poutine. These curds are a byproduct of the cheesemaking process; solid pieces of curdled milk. This form of cheese is regarded as unique in flavour and texture profile, largely because they have not been aged or pressed as many other cheese varieties are. The “squeak”, a key textural component we have come to anticipate in each bite, is caused by air that has been trapped within the protein structure of the curd. This air is then released when chewed. This squeakiness we refer to, can also be regarded as a sign of freshness, because it demonstrates the intactness of the protein matrix and therefore the air trapped within. The flavour profile is typically referred to as mild, milky, and somewhat salty. Each of the three classical ingredients are intended to be available to taste in the flavour profile, therefore the mildness of the cheese is important as to not overwhelm. Due to the

vital textural harmony of poutine, as it is a food intended to have “high dynamic contrast” it is also important that the cheese does not fully melt, and these curds have a high heat tolerance, intended to soften just slightly*(Fabien-Ouellet, 2016)*.

The second component; potatoes, have a long and complex history. Originating as a wild variety of root vegetables in the Andes mountains of South America that were valued due to nutrients such as carbohydrates, vitamins, and minerals. The process of domestication of potatoes by

Image 4: Russet potatoes as I prepare them for frying.

Indigenous peoples is believed to have begun at least 8,000 to 10,000 years ago. Later they were introduced to Spanish conquistadors who brought them back to Europe from Peru in 1536. In Europe, the root vegetable underwent much skepticism before gaining popularity, due to suspicions such as poison content, as potatoes are a part of the nightshade family. Some also believed its gnarled appearance could be linked to diseases such as leprosy, or that because it was a flouring plant, potatoes were only suitable as food for livestock. Thankfully, the food gained popularity because of its resilience and nutritional value, important traits in times of war and famine. From here the potato continued to cross borders and oceans (introduced to northeastern United States in 1719), gradually embraced by crop farmers and becoming a staple to many across the globe.

Gravy, the crucial third element of poutine, is rumoured to have been added as a method of maintaining the warmth of the fries and cheese. It is difficult to determine the origin of gravy as we know it, however records from the early 5th century AD in Rome contain recipes for sauces with components such as wine, herbs, and spices. In middle ages Europe, the use of thickening agents added to savory sauces became popular, particularly in upper class meals. While these recipes were not the same as the gravy we know now, these methods created richer, thicker sauces that could cling to food. The later development of a roux, the thickening agent in gravy, added to meat dripping formed the standardized classical English gravy, which has long been a staple in the country's cuisine. Many variations and personal spins on gravy making exist today, especially since the globalization of the food. Southern gravy; typically made with sausage dripping and milk, is an example of regional variety.

The now global influence of gravy is a testament to its versatility, and universal appeal. The sauces' presence is known for elevating meals, as it adds the moisture, flavor, and richness that we love.

Image 5: Flavouring or food? An example of an artificial poutine gravy mix by Club House.

Natural or artificial?

While the best poutine is arguably constructed from “natural” ingredients, each prepared in their classical fashion, more artificial options are of course available on the menu today. For example gravy, typically made from a flour roux, roast meat drippings, herbs, and sometimes wine, can be fast tracked with less fresh, more heavily processed ingredients, or even prepared by mixing a packaged dry mixture with water on the stove. Potatoes of course have undergone extreme selective breeding which has resulted in popularity of unicrops, however the vegetable remains economically accessible and relatively easy to prepare. Cheese curds have also undergone evolution since records of their early ancestors. Curds in the form as we know them are believed to have been developed in medieval France, where cheeses existed as symbols of wealth, status and knowledge, farmers would curdle milk, separating the curds before shaping. This beloved snack was introduced to North America by the French during the 17th and 18th centuries, where settlements existed as close knit communities, often centered around agriculture and in particular dairy farming. While the overall dairy industry and therefore dairy products have undergone significant changes, the technique of curd making is still relatively traditional as expertise and dedication are considered important values in the industry. There is however an argument to be made about the richness and nutritional value of cheeses changing as our modern dairy can be found to pale in comparison to products of the past. This is largely due to the monopolization of the dairy industry and the transition away from a quality product to focusing on quantity, as profit is now generally viewed as the priority.

Cooking directions:

Wash potatoes thoroughly. If you prefer the skin off then peel them before cutting them into fry shaped batons. Place the batons in a bowl of ice water to remove excess starchyness for approximately 20-30 mins.

While the potatoes soak; add the butter into a saucepan on low-medium heat to melt, along with the garlic and shallot and other aromatics as preferred. Once melted, add the flour and whisk until smooth (about 2-5 minutes). Once smooth, slowly add the broth and allow it to come to a simmer. Continue whisking for another few minutes or until the mixture is thick and cohesive, then remove from heat. Add salt and pepper to taste.

Remove the potatoes from the water and dry them completely. To fry; heat the oil in a large pot to a temperature of 325 degrees. Once heated, add the potatoes into the oil in medium sized batches and ensure they don't stick. Fry the potatoes for about 4 minutes, stirring occasionally. Remove them from the pot with a slotted spoon, and place them on a dish lined with a paper towel to absorb excess oil. Sprinkle with salt before they fully dry and repeat this process until all of your potatoes are fried.

For extra crispy fires; allow the potatoes to cool slightly after frying, and then fry them a second time only for 2-3 minutes before salting.

To serve, place the cooked fries onto a wide serving plate or bowl, top with cheese curds, and ladle gravy over the creation. Add desired topping or enjoy the dish in its traditional form.

Image 6: Behold the beloved squeaky curds; mild and salty. Designed to soften but not melt, and best used within a few days after purchase.

Works cited:

Behiels, M. D. (2019). Quebec | History, Map, Flag, Population, & Facts. In *Encyclopædia Britannica*. https://www.britannica.com/place/Quebec-province

Butterfield, M. (2017, May 29). *Poutine A Victim Of Cultural Appropriation, Argues Quebec Researcher*. HuffPost. https://www.huffpost.com/archive/ca/entry/poutine-a-victim-of-cultural-appropriation-argues-quebec-resear_n_16869564

Caldwell, E. (2025, May 25). *Why Does Poutine Have Cheese Curds? Unraveling the Cheesy Heart of Canada's National Dish - TheFlavorExperts*. TheFlavorExperts. https://theflavorexperts.com/why-does-poutine-have-cheese-curds/

Fabien-Ouellet, N. (2016). Poutine Dynamics. *Cuizine: The Journal of Canadian Food Cultures / Cuizine : Revue Des Cultures Culinaires Au Canada*, *7*(2). https://doi.org/10.7202/1038479ar

March, J. (2021, May 6). *Why only Quebec can claim poutine*. Www.bbc.com. https://www.bbc.com/travel/article/20210505-why-only-quebec-can-claim-poutine

Michelle. (2024, September 16). *Simple Gravy (From Pan Drippings) | Sift & Simmer*. Sift & Simmer. https://www.siftandsimmer.com/simple-gravy-from-pan-drippings/#recipe

Poutine | The Canadian Encyclopedia. (2014, December 2). Thecanadianencyclopedia.ca. https://www.thecanadianencyclopedia.ca/en/article/history-of-poutine

Pressroom, C. (2023, January 26). *Origins of La Poutine*. Comedy Club in Montreal - Comedyville. https://www.comedyville.ca/origins-of-la-poutine/

Ruby, R. (2025, November 12). *Authentic Poutine: Your Quebec Comfort Fix*. Savor Journey. https://savorjourney.com/poutine/

Stevens, K. (2025, April 21). *Authentic Canadian Poutine* 🇨🇦. The Endless Meal®.

https://www.theendlessmeal.com/authentic-canadian-poutine/

The Origin of Potatoes and Their Journey Around the World. (2025, July 24). Biology Insights. https://biologyinsights.com/the-origin-of-potatoes-and-their-journey-around-the-world/

Walker, A. (2025, July 13). *Which Country Invented Gravy? A Delicious Dive into Culinary History - HomeAndKitchenBlog*. HomeAndKitchenBlog. https://homeandkitchenblog.com/which-country-invented-gravy/

Evolution of The Taco:

The taco is not just one recipe, but the result of over 9,000 years of domestication, ecological management, and cultural knowledge rooted in Mesoamerica, all culminating in the Mexican staple we know today. Before tacos became a globally recognized food, Indigenous farmers transformed wild teosinte into maize, developed the milpa farming system, and refined nixtamalization. These are processes that connected biology, ecology, culture, and community into a food system that remains central to our diets today.1,2

Figure 1

Growing up, I pressed my own tortillas from masa and did feel a personal connection to my Mexican heritage, yet I did not realize how much culture and history I held in my hands as I formed the dough. Only later did I come to understand that this everyday act was part of a much larger living history. Maize was an intentional and cultural creation.2

Often, the food we eat has been disconnected from the history and place it first came from. To truly understand the tacos we enjoy today, we must explore the deep historical, ecological, and cultural systems that made them possible.

Figure 2 corn

Figure 3 Ancient drawing of corn

In Mesoamerican worldviews, maize is life itself. According to the Maya creation story recorded in the Popol Vuh, the gods first attempted to create humans from mud and wood, but only succeeded after forming humans from maize.3 The phrase “corn is our blood” reflects how maize is not simply food, but a sacred life substance embedded in identity, culture, and existence.

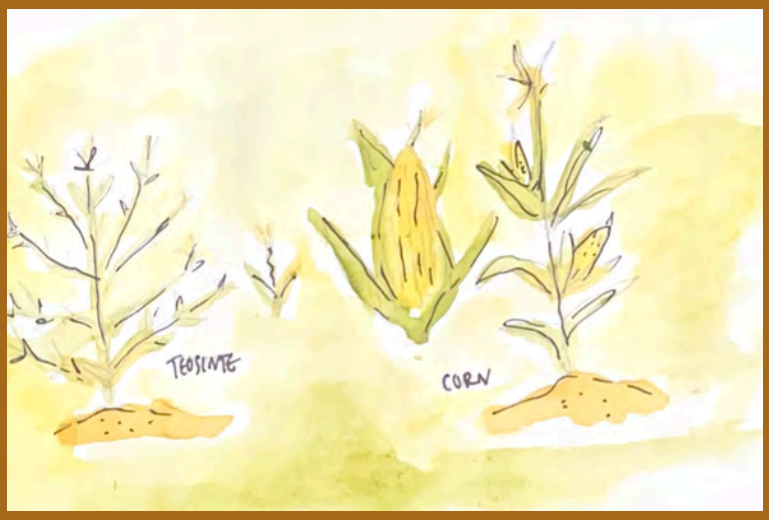
Maize Domestication & Early Agriculture

Maize (Zea mays) was domesticated from the wild grass teosinte in southern Mexico's Balsas River Valley roughly 9,000 years ago.4,5 Teosinte looked very different from modern corn. It had a highly branched, shrub-like structure with small, hard kernels enclosed in protective casings, unlike maize's single tall stalk and large, exposed ears.6 Through repeated cycles of artificial selection, early Mesoamerican farmers favored plants with larger ears, softer outer glumes, non-shattering kernels, and higher starch content. These are all traits that made maize easier to harvest, store, and process.6,7,8.

Figure 4

Genetic research indicates that only a small number of key genes were responsible for the most dramatic early changes between teosinte and maize, including branching structure and kernel hardness, while thousands of additional genes later refined yield, climate adaptation, and pest resistance.7,8 This long process of domestication occurred within complex ecological systems and deep relationships between people, land, and food.

Teosinte was highly ecologically resilient, growing across hot lowlands, dry valleys, rocky slopes, and forest edges while tolerating wide ranges of temperature and rainfall.9 This adaptability supported the development of early agriculture within biodiverse landscapes. Archaeological evidence from the Xihuatoxtla Shelter in the Central Balsas watershed confirms that maize and squash were already being used by small, mobile human groups between 8,700 and 9,000 years ago.5.



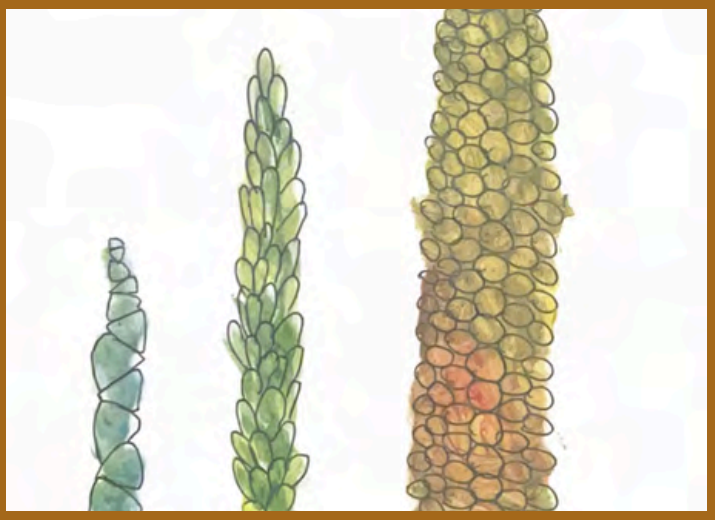


Figure 5 & 6 Teosinte to Corn

Over time, maize became the agricultural foundation of Mesoamerican civilizations. Its storability, transportability, and caloric density supported population growth, urbanization, ritual life, and regional trade networks. Without the long domestication of teosinte into maize, the tortilla, and therefore the taco, could not exist.4,6,10.

The Milpa System: The Three Sisters

Figure 7 Milpa System

The Milpa system is a traditional Mesoamerican polyculture that interplants maize (Zea mays), beans (Phaseolus spp.), and squash (Cucurbita spp.), collectively known as the "Three Sisters".1,11,12 Each crop contributes uniquely to the field's productivity and resilience: beans fix nitrogen, enriching the soil for all plants, maize provides vertical support for climbing beans, and squash spreads across the ground, shading soil, conserving moisture, and suppressing weeds.12,1,11This complementary system exemplifies ecological interdependence and the principles of agroecology, integrating biodiversity, soil health, and sustainable productivity.13

Milpa is typically cultivated through swidden, or shifting cultivation, where plots are rotated with periods of woodland fallow. Low-intensity, carefully managed burning enriches the soil with biochar, promotes forest succession, and maintains long-term fertility.13 These practices have allowed smallholder communities to sustain food production in varied ecological zones for thousands of years.

Nutritionally, the Three Sisters provide a balanced diet. Maize supplies carbohydrates, beans offer protein and essential amino acids lacking in maize, and squash contributes vitamins, antioxidants, and fiber.14 Archaeological and ethnobotanical studies confirm that this system consistently yields higher nutritional and caloric outputs compared to monocropped fields.14 Beyond sustenance, the Milpa carries profound cultural significance. Knowledge of planting cycles, intercropping techniques, and rotations is transmitted across generations, linking agriculture with community identity, spirituality, and resilience.12

Through its ecological sophistication, nutritional completeness, and cultural embeddedness, the Milpa system demonstrates how traditional Mesoamerican agriculture represents a living archive of environmental and social knowledge, shaping culinary practices such as the tortilla and, ultimately, the taco.

The Three Sisters: Ingedient Profiles

Maize (Corn) — Zea mays:
Domesticated from the wild grass teosinte in southern Mexico over 9,000 years ago, maize became the foundation of Mesoamerican agriculture.1,13,12 Selective breeding transformed small, hard seeds into large, starchy kernels ideal for nixtamalization and masa-based foods.12 Dent and flint maize varieties are most commonly used for tortillas and tacos due to their starch structure.12.

Figure 8

Figure 9

Beans — Phaseolus vulgaris:
The common bean was independently domesticated in Mesoamerica, alongside other lineages in South America.15 In the Milpa system, beans climb maize stalks while fixing nitrogen in the soil, naturally fertilizing the field. Black, pinto, and small red beans remain staple
varieties.1,15

Squash — Cucurbita spp.:
One of the earliest domesticated crops in the Americas, squash has been cultivated for over 10,000 years.11 In the Milpa, sprawling squash plants act as a living mulch, preserving soil moisture and controlling weeds.1,11 Both the flesh and seeds (pepitas) continue to play important nutritional and culinary roles in Mexican cuisine.11.

Figure 10

Nixtamalization: From Maize to Masa

Nixtamalization is the traditional process that transforms dried maize kernels into masa, the dough used for tortillas and tacos. After harvest, maize is boiled in water mixed with an alkaline substance, traditionally slaked lime (calcium hydroxide) or wood ash. This process loosens the outer hull (pericarp), alters starch and protein structures, and allows the kernels to soften and bind properly when ground.17,18,19.

Once soaked, the kernels (now called nixtamal) are rinsed to remove the hull and excess alkali. They are then ground into masa, traditionally on stone slabs called metates or with modern molinos (grinding stones). Without this step, maize starch cannot form the flexible dough necessary for tortillas and tacos.18,19

Nixtamalization also boosts nutrition. It releases bound niacin (vitamin B3), increases calcium availability, improves protein quality, and reduces some mycotoxins such as fumonisins.17,16,2,19 In short, this chemical and mechanical transformation was essential for turning maize into something that could sustain large populations and form the foundation of Mesoamerican diets. Without nixtamalization, the soft masa that makes tacos possible would not exist.12

Figure 11

Milpa Taco Recipe

Ingredients:

Masa Tortillas
2 cups masa harina
1½ cups warm water
½ tsp salt

Filling
1–2 cups chopped
1 cup black beans, cooked and drained
1 tsp cumin
½ tsp paprika
Salt, to taste

Toppings
Goat cheese, crumbled
Purple cabbage, thinly sliced
Avocado, sliced
Fresh lime
Fresh cilantro

Instructions:

Making the dough
Mix masa harina and salt in a bowl. Slowly add warm water and mix until a soft dough forms. Knead until it feels like play dough.

Press & Cook Tortillas
Divide dough into small balls. Press thin rounds using a tortilla press. Cook on a hot, dry skillet for about a minute per side until gold and puffed. Set aside and keep warm

Cook the Filling
Sauté squash in a pan over medium heat until tender, 5–7 minutes. Add black beans, cumin, paprika, and salt. Cook 2–3 minutes more.

Assemble
Spoon filling onto warm tortillas. Top with goat cheese and purple cabbage.

Finish & Serve
Add avocado, a squeeze of lime, and cilantro. Enjoy!

Early Masa-Based Foods & Ecological Staples

After maize was transformed into nixtamalized dough (masa), early Mesoamericans developed portable, versatile maize-based foods that became central to their diet. One of the most important of these was the tamale. Long before European arrival, Indigenous Mesoamerican communities (especially the Maya) had already established the tamale as one of their primary maize-based foods. This is shown through epigraphic, iconographic, and ecological evidence.20

The tamale, which is a maize dough wrapped in leaves or husks and steamed, is found in Classic Maya art, pottery, and hieroglyphics, under glyphs identified as representing tamales.20 Ethnohistorical data indicate that tamales were prepared using masa and could be filled with a variety of items, like vegetables, beans, fish, or other meats, all depending on environment and availability.21

Archaeological studies also provide direct material evidence of nixtamalization among the Maya: a recent micro-botanical analysis of ceramic vessels from the Lowland Maya site of La Corona (ca. 600–900 CE) revealed starch spherulites consistent with lime-treated maize, confirming that nixtamalization was practiced centuries before European contact.22

Early maize-based foods like tamales gives us insight into deep integration of crop domestication, food-processing knowledge, and ecological adaptation.23 These same principles: portable masa, adaptable fillings, and regional ecology, can later be seen to take new forms like the tortilla-based taco. The taco and the tamale both come from ancient culinary logic and practices.

Figure 12 Ancoent drawing of tamales

Figure 13 Tamales

Colonial Food Systems: Introduction of Livestock and Wheat

Figure 14

The arrival of the Spanish in the early 1500s introduced domestic livestock such as cattle, pigs, sheep, and goats to Mesoamerica, providing new sources of meat, dairy, and labor.24,25 European crops, particularly wheat, were established in temperate and highland regions, providing flour for bread and other baked goods alongside native maize-based foods.26

While the colonization of Mesoamerica brough many challenges, these introductions did not fully replace maize, beans, and squash. These continued to be cultivated and consumed by Indigenous communities.27 Livestock and European crops gradually became part of local diets and farming practices, contributing to diversified food systems.28

The integration of Old and New World ingredients reflects the layered nature of colonial-era food systems, in which native agricultural knowledge persisted alongside new species and crops introduced by the Spanish.23

Figure 15 Wheat

Figure 16 Tacos al pastor

Figure 17 Fish taco

Figure 18

Modern Taco & Regional Adaptations

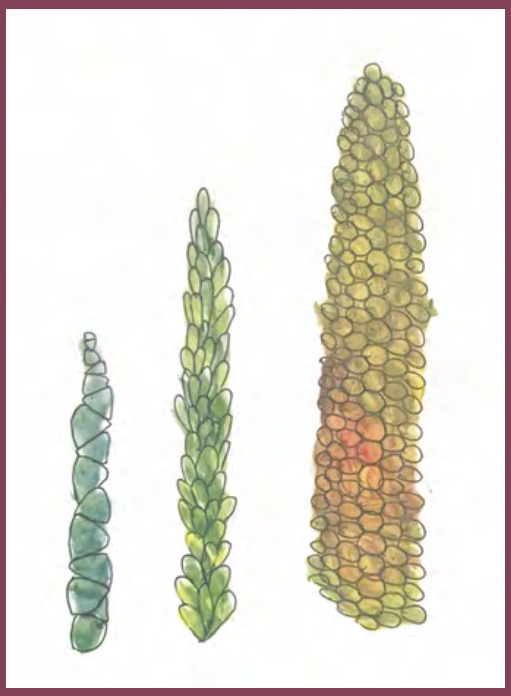
The exact origins of the modern taco are difficult to pinpoint, as there is no definitive "first taco" in the historical record. One theory traces the term to 18th-century silver mines in Mexico, where tacos referred to small charges of gunpowder wrapped in paper. The term was later applied to the portable meal's miners had, "tacos de minero" (miners taco). This links the word directly to the taco's function as a compact, handheld food.29 From these early roots, the taco continued to evolve through migration, labor, and social change.

In the 20th century, immigration played a major role in reshaping taco traditions. Lebanese immigrants to Mexico introduced shawarma-style spit-roasted meat, which was adapted using pork, chiles, and corn tortillas to create what is now known as tacos al pastor.30,31 Outside of Mexico, tacos took even more forms as they mixed with other cultures and cuisines. In the United States, Tex-Mex cuisine combined Mexican culinary forms with local ingredients such as beef, cheddar cheese, and flour tortillas.32 Fast-food chains, including Taco Bell in the 1960s, then standardized and commercialized these adaptations. This not only changed the food, but it also reshaped public perceptions of the taco, as well as making it available for mass consumption.33

Like early maize-based foods, tacos are shaped by their surroundings: local ingredients determine their fillings, flavors, and forms. For example, coastal regions may favor seafood-based tacos that reflect local marine ecosystems and fishing traditions. This is not a new concept, as Indigenous Mesoamericans already combined maize with fish and other locally available foods. Baja-style fish tacos show how these principles have persisted and evolved. While the ingredients and preparation have changed over time, the logic of using what the environment provides remains the same. At the same time, tacos continue to adapt to people, society, and cultural influences. They take on new forms, fusions, and flavors, as they move through different people and places.

This ongoing evolution can even be seen in Canadian food culture. In British Columbia, the restaurant Tacofino offers a West Coast take on the taco. It blends global surf culture with Mexican culinary structure while emphasizing local seafood, sustainable meat, and regional produce.34 This shows us how the taco continues to function as a flexible culinary framework, rather than a singular fixed recipe.




The taco we enjoy today is rooted in thousands of years of Indigenous agricultural knowledge, ecological stewardship, and culinary tradition. From the domestication of teosinte into maize, to the development of the Milpa system with beans and squash, Mesoamerican peoples cultivated not only crops, but also social and ecological systems. The Milpa is a perfect example of agroecology. Planting maize, beans, and squash together improves soil health, supports biodiversity, and produces nutritionally balanced foods. Beyond these practical benefits, it strengthened community bonds, passed knowledge across generations, and expressed cultural identity.35 These agricultural and ecological principles carried forward into maize-based foods like tamales and tortillas, and eventually into tacos.

On a personal level, making tacos with masa, beans, and squash connects me directly to this living history. When I press tortillas and prepare these fillings, I am engaging with thousands of years of Indigenous knowledge, ecological understanding, and community practices. Each taco becomes more than food. It reflects identity, social connection, and the deep relationships between people, land, and culture. By understanding this history, we can honor Indigenous agricultural legacies while appreciating how food continues to evolve, adapt, and nourish ourselves and community.

References:

#1 Metych, M. (2024, October 22). Milpa | Description, History, Three Sisters, Indigenous Agriculture, Benefits, & Facts. Encyclopedia Britannica. https://www.britannica.com/science/three-sisters

#2 Nast, C. (2021, June 23). Unlocking Nixtamal. Epicurious. https://www.epicurious.com/ingredients/what-is-nixtamal-article

#3 VanDerwarker, A. (2013, August 2). Popol Vuh | Mayan document. Encyclopedia Britannica. https://www.britannica.com/topic/Popol-Vuh

#4: Cultural history of maize. (n.d.). Earth@Home: Evolution. https://evolution.earthathome.org/grasses/andropogoneae/maize-culture/

#5 Ranere, A. J., Piperno, D. R., Holst, I., Dickau, R., & Iriarte, J. (2009). The cultural and chronological context of early Holocene maize and squash domestication in the Central Balsas River Valley, Mexico. Proceedings of the National Academy of Sciences, 106(13), 5014–5018. https://doi.org/10.1073/pnas.0812590106

#6 Kellogg, E. A. (1997). Plant evolution: The dominance of maize. Current Biology, 7(7), R411–R413. https://doi.org/10.1016/s0960-9822(06)00204-1

#7 Sciences (US), N. A. of, Avise, J. C., & Ayala, F. J. (2009). Tracking Footprints of Maize Domestication and Evidence for a Massive Selective Sweep on Chromosome 10. In www.ncbi.nlm.nih.gov. National Academies Press (US). https://www.ncbi.nlm.nih.gov/books/NBK219724/

#8 Chen, Q, Samayoa, L. F., Yang, C. J., Bradbury, P. J., Olukolu, B. A., Neumeyer, M. A., Romay, M. C., Sun, Q, Lorant, A., Buckler, E. S., Ross-Ibarra, J., Holland, J. B., & Doebley, J. F. (2020). The genetic architecture of the maize progenitor, teosinte, and how it was altered during maize domestication. PLOS Genetics, 16(5), e1008791. https://doi.org/10.1371/journal.pgen.1008791

#9 Sánchez González, J. de J., Ruiz Corral, J. A., García, G. M., Ojeda, G. R., Larios, L. D. la C., Holland, J. B., Medrano, R. M., & García Romero, G. E. (2018). Ecogeography of teosinte. PLOS ONE, 13(2), e0192676. https://doi.org/10.1371/journal.pone.0192676

#10 University of Utah. (2017). Evolution of Corn. Utah.edu. https://learn.genetics.utah.edu/content/evolution/corn/

#11 Domic, A. I., VanDerwarker, A. M., Thakar, H. B., Hirth, K., Capriles, J. M., Harper, T. K., Scheffler, T. E., Kistler, L., & Kennett, D. J. (2024). Archaeobotanical evidence supports indigenous cucurbit long-term use in the Mesoamerican Neotropics. Scientific Reports, 14(1). https://doi.org/10.1038/s41598-024-60723-1

#12 Pérez, R. V., Aguilar, J. E., Cruz, R. G., Armando, A., Martha Hernández Rodríguez, Yolanda Camacho Villasana, & Jerónimo Herrera Pérez. (2024). Mexican native maize: origin, races and impact on food and gastronomy. International Journal of Gastronomy and Food Science, 37, 100978–100978. https://doi.org/10.1016/j.ijgfs.2024.100978

#13 Nigh, R., & Diemont, S. A. (2013). The Maya milpa: fire and the legacy of living soil. Frontiers in Ecology and the Environment, 11(s1). https://doi.org/10.1890/120344

#14 Lopez-Ridaura, S., Barba-Escoto, L., Reyna-Ramirez, C. A., Sum, C., Palacios-Rojas, N., & Gerard, B. (2021). Maize intercropping in the milpa system. Diversity, extent and importance for nutritional security in the Western Highlands of Guatemala. Scientific Reports, 11(1). https://doi.org/10.1038/s41598-021-82784-2

#15 Frascarelli, G., Galise, T. R., Nunzio D'Agostino, Cafasso, D., & Papa, R. (2025). The evolutionary history of the common bean (Phaseolus vulgaris) revealed by chloroplast and nuclear genomes analysis. Theoretical and Applied Genetics, 138(2). https://doi.org/10.1007/s00122-025-04832-z

#16 Ebel, R., de, M., & Putnam, H. R. (2018). Milpa: One Sister Got Climate-sick. The Impact of Climate Change on Traditional Maya Farming Systems. 24(2), 175–199. https://doi.org/10.48416/ijsaf.v24i2.103

#17 Arendt, E. K., & Zannini, E. (2013). Nixtamalization - an overview | ScienceDirect Topics. Www.sciencedirect.com. https://www.sciencedirect.com/topics/food-science/nixtamalization

#18 Serna-Saldivar, S. O. (2021). Understanding the functionality and manufacturing of nixtamalized maize products. Journal of Cereal Science, 99, 103205. https://doi.org/10.1016/j.jcs.2021.103205

#19 Azur Moulaert. (2024, September 5). The Science of Nixtamalization. Vermont Tortilla Company. https://www.vttortillaco.com/blog/the-science-of-nixtamalization/

#20 Taube, K. A. (1989). The Maize Tamale in Classic Maya Diet, Epigraphy, and Art. American Antiquity, 54(1), 31–51. https://doi.org/10.2307/281330

21 tamale | Definition, Preparation, & Variations. (n.d.). Encyclopedia Britannica. https://www.britannica.com/topic/tamale-food

#22 Cagnato, C., Ponce, J. M., Canuto, M. A., & Tomás Barrientos Q. (2024). Nixtamalization at La Corona: Microbotanical analysis of ceramic vessels indicates Late Classic Maya cooking techniques. Quaternary International, 711, 38–48. https://doi.org/10.1016/j.quaint.2024.09.007

#23 Bruhns, K. O. (1995). America's First Cuisines. Sophie D. Coe. University of Texas Press, Austin, 1994. x + 288 pp., 15 illustrations, bibliography, index. $35.00 (cloth). Latin American Antiquity, 6(3), 281–282. https://doi.org/10.2307/97167

#24 Melville, E. G. K. (1990). Environmental and Social Change in the Valle del Mezquital, Mexico, 1521–1600. Comparative Studies in Society and History, 32(1), 24–53. https://doi.org/10.1017/s0010417500016327

#25 The Columbian exchange : biological and cultural consequences of 1492 : Crosby, Alfred W : Free Download, Borrow, and Streaming : Internet Archive. (2022). Internet Archive. https://archive.org/details/columbianexchang0000cros_j1j8/page/n9/mode/2up

#26 Colonial Mexican Agriculture: The Introduction of New Crops and Techniques. (2024). Mexicohistorico.com. https://www.mexicohistorico.com/paginas/Colonial-Mexican-Agriculture--The-Introduction-of-New-Crops-and-Techniques.html

#27 The Impact of the Spanish Conquest on Mesoamerican Agriculture. (2025). Mexicohistorico.com. https://www.mexicohistorico.com/paginas/The-Impact-of-the-Spanish-Conquest-on-Mesoamerican-Agriculture.html

#28 González-Rivadeneira, T. I., Casas, A., & Argueta-Villamar, A. (2022). Food sovereignty of the P'urhépecha of Michoacán, Mexico: historical review and critical perspectives from nature-culture relationships. Journal of Ethnic Foods, 9(1). https://doi.org/10.1186/s42779-022-00149-0

#29 Katy June Friesen. (2012, May 4). Where Did the Taco Come From? Smithsonian; Smithsonian.com. https://www.smithsonianmag.com/arts-culture/where-did-the-taco-come-from-81228162/

#30 Thank the Ottoman Empire for the taco al pastor - The World from PRX. (2015, May 6). The World from PRX. https://theworld.org/stories/2015/05/06/taco-youre-eating-got-its-start-middle-east

#31 Thelmadatter, L. (2020, May 2). Mexico's favorite taco has immigrant roots. Mexico News Daily. https://mexiconewsdaily.com/mexico-living/mexicos-favorite-taco-has-immigrant-roots/

#32 Pruitt, S. (2015, June 16). Tracing the History of Tex-Mex | HISTORY. HISTORY. https://www.history.com/articles/tracing-the-history-of-tex-mex

#33 Pilcher, J. M. (2012). Planet Taco: A Global History of Mexican Food. Oxford University Press.

#34 West. (2025). Tacofino Restaurants – West Coast Inspired. Tacofino Restaurants – West Coast Inspired. https://www.tacofino.com

#35 Soil Association. (2024). What is agroecology? Www.soilassociation.org. https://www.soilassociation.org/causes-campaigns/a-ten-year-transition-to-agroecology/what-is-agroecology/

Figure #1: My own illustration

Figure #2: My own illustration

Figure #3: My own illustration – Inspired by: The heart of each meal. (2025). Mexicolore.co.uk. https://www.mexicolore.co.uk/aztecs/aztefacts/heart-of-each-meal

Figure #4: My own illustration – Inspired by: https://www.frontiersin.org/journals/genetics/articles/10.3389/fgene.2011.00053/full

Figure #5: My own illustration – Inspired by: Plant Domestication – The Creative Spark by Agustín Fuentes. (2019, December 7). Nd.edu. https://sites.nd.edu/rachel-glein/2019/12/07/plant-domestication/

Figure #6: My own illustration

Figure #7: My own illustration

Figure #8: My own illustration

Figure #9: My own illustration

Figure #10: My own illustration

Figure #11: My own illustration – Inspired by: Nixtamalization. (2025). Molino Campo Noble . https://molinocamponoble.com/en/pages/nixtamalization?srsltid=AfmBOoqzTIVIsXuFJ0M0bCoQr6bPxIoak5qVHJeczHq14gZS7Cmmet2s

Figure #12: My own illustration – Inspired by: Aztec advances in health and technology: tamales. (n.d.). Www.mexicolore.co.uk. https://www.mexicolore.co.uk/aztecs/health/aztec-advances-13-tamales

Figure #13: My own illustration

Figure #14: My own illustration

Figure #15: My own illustration

Figure #16: My own illustration

Figure #17: My own illustration

Figure #18: My own illustration