THE FIRST BROWNIE: THE HISTORY OF THE BROWNIE

Written by Aretha Gaievenko on October 19, 2023

Brownie, also 'a gift of a goddess', is a delicious chocolate dessert (almost a cake). But it does not classified as a cake, whereas brownies have a facture corresponding to them. We do not eat a brownie using a fork, we using hands together with fingers, cuz it classified as finger food*.

THE ORIGIN OF THE "BROWNIES"

By Palmer Cox

Palmer Cox's Brownies in a row. Extracted from The Brownie Camera Page

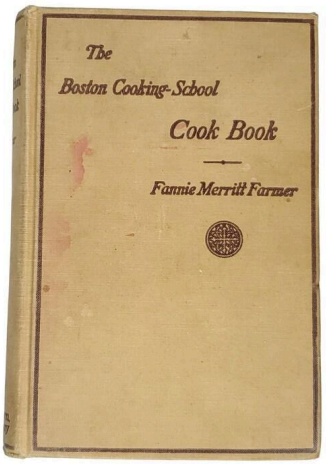
The name of brownies had got from their brown colouring and from kind of Lilliputian characters widespread in fabled stories for children.

Classical brownies are baked with chocolate, butter, eggs and sugar, vanilla extract and cacao powder, white flour, salt and baking powder or baking soda (in a mixture with lemon acid). As soon as the basis for the dough had made by blending these ingredients, it is baked for about 30-45 minutes at 180 ° Celsius, and a dessert is ready. But not each first brownie contained chocolate from the beginning of its own conception.

HISTORY OF THE BROWNIE: THE FIRST PRINTING AND THE CHOCOLATE BROWNIE CONCEPTION

The first brownie recipe appears in printing in 1896 edition of the Boston Cooking-School Cook Book, written by Fannie Farmer. But the author did not use no chocolate in this edition, and just molasses. This dessert was more corresponding to a cake with a somewhat chewy, dense facture as the blondie* have. Moreover, Fannie had adapted her recipe to baking it on a special rectangular pan.

Several years afterward, in 1906, she released an updated edition of her cookbook, that finally had chocolate, which represented a blondie and a brownie baked in a 7-inch square aluminium container. Before long, they began to circulate throughout the neighbourhood due to colossal popularity of the Fannie Farmer's work.



One edition of The Boston Cooking-School Cook Book. Extracted from Etsy

That regarding the Boston Cooking-School Cook Book and its popularity, Laura Shapiro writes, that: 'When Fannie Farmer died in 1915, over 360,000 copies of the book had been sold, and it was still coming out regularly in printings of 50,000 each.'

Also, in modern time, the Fannie Farmer Cookbook, written by Marion Cunningham, continues to be as a kind of classic in American home cookery and includes respective brownie recipes. The intelligibility of the baking technology and the increasing accessibility of the

chocolate contributed to the widespread of agreeable impression about this dessert.
Regarding other written references, there are two examples in the late 1890s. In the 1987 Sears and Roebuck Catalogue advertised brownies as a treat with an apricot glaze or jam surrounded by crackers and biscuits (actually it was almost a Sacher-Torte). And, in 1898, the Kansas City Journal advertised a brownie recipe with chocolate adding, considered to be the earliest recipe which included

A STORY OF BERTHA PALMER AND PALMER HOUSE

An advertisment. Extracted from HospitalityNet

One of backstories suggests that brownies were designed in 1893, at the Palmer House Hotel in Chicago. Potter Palmer's wife Berta Palmer ordered cooks of the hotel to bake a mouthwatering sweet treat for guests attending the World Columbian Exposition. She aspired to serve her guests something smaller than a cake that was easier to consume. As result, their brownies contained a twice than normal quantity of chocolate you can find in a brownie, together with walnuts and an apricot glaze. The same brownies bake in the hotel nowadays. But there are no clear evidences to suggest that the Palmer House Hotel brownies were called brownies specifically.

chocolate. And finally, the first recorded chocolate brownie recipe appears in the Maine community cookbook, Machias Cookbook in 1899, under the name Brownie's Food. This recipe included all essential ingredients to bake a brownie: flour, chocolate, milk and baking soda. Then, in 1904 a chocolate brownie appears again in a cookbook, that published by the Club of Chicago, in a recipe for Bangor Brownies.

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Spinach in ancient Persia: Cultivation and Consuming

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Spinach (or Spinacia oleracea) is a leafy verdant culture, vegetable that belongs to the amaranth family, precisely to Amaranthaceae, to the order Caryophyllales, and to the Chenopodioideae subfamily.

Leaves of baby spinach. Extracted from Depositphotos

One hundred (g) of raw spinach is composed on 91% from water, has 23 calories, 2.9 (g) of protein, 3.6 (g) of carbohydrates, 0.4 (g) of sugar, 2.2 (g) of fiber, and 0.4 (g) of fat.

The most quantity of the carbohydrates in spinach is composed from fiber, as well contains a little sugar in the form of glucose and fructose.

As well, it contains vitamins and minerals in high qualities: Vitamin A, for example, is formed when the organism receives carotenoids with spinach; Vitamin C is an antioxidant that has the excellent influence to functions of the immune systems, and to skin health; Vitamin K1 that is important for blood clotting, and spinach's one leaf has more then half of human diurnal need; Vitamin B9 or folate (folic acid) is important for cellulate function and for growth of tissues, also is critical for pregnant; Iron helps to form a structure of hemoglobin, that transfers oxygen to organism's tissues; Calcium is important mineral for bones, also is a signaling molecule for the nervous system, muscles and heart.

In addition, spinach also contains other vitamins and minerals, including magnesium together with potassium, and an another vitamin from group B (B6), and vitamin E.

This culture also contains other compounds, including: Lutein and zeaxanthin are compounds, that is relevant to enhance health of eyes; Kaempferol is an antioxidant, that decreases risk and prevents the development of cancer, also chronic diseases; Nitrates stimulate stable heart function; Quercetin is an other antioxidant, that averts infections and inflammation (spinach is one of the wealthiest dietetic quercetin sources).

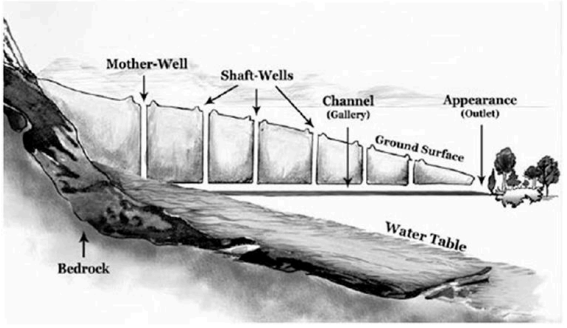
Regarding history, spinach, at first time, have been cultivated by Persians above 2,000 years ago, and its cultivation was excellently developed during the Achaemenid Empire (550-330 BC).

In cultivation

Regarding how it was once cultivated, in ancient Persia, it was grown using agricultural methods that were adapted to the region's climate and geographical prerequisites. Since, spinach is a cultural vegetation (and all others swear), that needs cool weather conditions, and generally does not tolerate the summer's extreme heat, it was grown in the moderate seasons, such as spring and autumn.

At first, soils were carefully preparing to ensure excellent drainage and aeration, and for to increase its fertility were often added organic substances, such as fertilisers or manure. As well, to prevent

exhaustion of soils, farmers practiced crop rotation, that involved systematically changing the types of cultures grown on a particular land plot.
Seeds were sown by rows, directly into pre-prepared beds or fields, spacing them at suitable intervals to allow effective growth. As a result, the green-verdant plants were harvested by hand, when the leaves were tender in enough and had preferable size.
Passing to more interesting information, it should be noted, that another big part of mass spinach cultivation was water management. Persia as the nation had innovative underground irrigation systems, more specifically the qanat (or kanat) system. Qanats, these systems, there were as a network of underground tunnels and channels drafted to take over and distribute groundwater from mountain sources to arid, also to semi-arid regions (as result, them were transforming into fertile agricultural lands), providing a dependable and stable water supply.
Further, qanats had an access point termed as the "qanat well", that was placing at the source of the water. All qanat wells were located within in mountains or hills, and by their single function were gathering spring water. The water was directed into the tunnel, and was flowing underground, safeguarded from evaporation and contamination. These tunnels were gradually sloped downward, permitting gravity to carry the water to the low land plots.



Qanat structure. Extracted from Frontiers

At certain intervals along the tunnel, vertical shafts, shafts for ventilation, more specifically "air shafts", were setting up.
The qanat technology is ecologically friendly for environment as it does not interrupt natural water channels. And, many of them are still in use today, demonstrating their tremendous longevity and itself's technologically efficiency.

In nourishment

Regarding spinach's usage spectrum in Persian cuisine, it was used to make soups and stews, also to make courses from rice. For example, "golpar sabzi", a Persian green stew, featured spinach's leaves in a mixture of herbs, such as cilantro, parsley and green onions, and its another ingredients are ground walnuts, pomegranate molasses, and an aromatic mixture of spices that includes golpar (angelica powder). Or "sabzi polo", a course, that served during the Persian New Year (Nowruz), made from basmati rice and spinach in a mixture of herbs, such as cilantro, parsley, dill and scallions. "Sabzi" means herbs, and "polo" refers to rice in Persian.
Other course, "sabzi khordan", a platter made from verdant spinach in a mixture of herbs, such as parsley, cilantro, mint, scallions and tarragon, also vegetables. The platter was served as an addition to main courses, and typically was eaten on flatbread, such as lavash or sangnak, also with cheese. By the way, "khordan" means to eat.
Spinach's leaves as well sometimes were added to Persian omelettes or frittatas, "kuku sabzi", made from a typical green mixture of herbs that featured parsley, cilantro, and dill. Eggs were as an another ingredient, including seasonings, and not often ground walnuts and barberries.
For to make "ghormeh sabzi", one more stew, used milky spinach in a mixture of

parsley, cilantro, fenugreek. When herbs have been finely chopped and the basis has been done, then whether lamb or beef was cooked in the mixture to full tender. Other ingredients are red kidney beans, dried Persian limes (limoo amani).

And for the rest, for to make Persian yogurt or their dip, "borani esfenaj", was used spinach. It was cooked until tender and withered, also seasoned by a pinch of salt, or sometimes with crushed garlic. Persian yogurt (titled "kashk" or "mast") or thick Greek-like yogurt was used as the basis for a dip, also in it was often added a little dried mint, salt, and crushed garlic. The "borani esfenaj" was made by layers, and thermally treated spinach was placed on the bottom, followed by a layer of the yogurt on the top. For garnishing were used toppings, such as fried onion, sometimes walnuts, and dried mint.

The Vanilla's Certificate

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Vanilla is a seasoning extracted from vanilla orchids. Currently, the head vanilla species are grown in global, and all of them derive from species unique for Mesoamerica. For illustration: Vanilla planifolia grown on Madagascar, Réunion Island, and other parts of the Indian Ocean; Vanilla x tahitensis, the specie grown in the South Pacific; Vanilla pompona, which encounters in the West Indies, South and Central America. The lion's share of the worldwide volume is the Vanilla planifolia, a specie, which is produced in Madagascar, on bordering islands in southwest Indian Ocean, also in Indonesia. Both Madagascar and Indonesia manufacture two-thirds of the worldwide supply of vanilla.

After saffron, vanilla as a seasoning is the most expensive, cuz growing process of the vanilla seed pods is intensive and problematic.

One (kg) of processed vanilla beans, according to the Food and Agriculture Organisation of the United Nations, has 20 (g) of vanillin, 1 (g) of vanillic acid, 250 (g) of sugars, 150 (g) of lipids, 150-300 (g) cellulose, 60 (g) of minerals, 350 (g) of water, also 2 (g) of p-hydroxybenzaldehyde and 0.2 (g) of p-hydroxybenzoic acid. In addition, it has hemicellulose, waxes, resins and pigments, minerals and tannins, essential oils.

But it should be noted, that the composition will depend on such conditions as: climate, growth rationality, soil composition, specific specie, maturity of fruit, and from type of processing in general.

Historical review

The history of vanilla begins from the ancient Mesoamerican cultures or ethnic groups, such as the Totonac people or the Aztecs, who were the first began to cultivate and use vanilla. Both of cultures were valuing vanilla as a product, and used it as a flavouring agent for beverages, for example "xocolatl", a cacao-based drink, which was made using vanilla and chilli. As well, it was used in religious rituals and ceremonies from reasons of its "mystical" property.

At beginning, Totonac people inhabited Mexico's eastern coast (state of Veracruz) and cultivated vanilla on farms since at least 1185. This matter had a low profile or was at good concealed, only a few of humans from foreign regions knew about it. In addition, speculated that the Olmecs, who also inhabited the wild vanilla's regions several thousands of years earlier, also were using wild vanilla in their cuisine.

Aztecs came here from central mountainous region, penetrated, afterward conquered the Totonacs, in the 1427. Then, they began using vanilla to flavour their food also beverages, including for their hot chocolate, which has been mentioned above in the article. They titled the vanilla fruit as "tlilxochitl", by a word, which often not correctly interpreted as "black flower", instead of the more precise version "black pod".

For these cultures, such as Aztecs etc., vanilla probably was as sweetener, used to smooth the bitter taste of cacao, on example of sugarcane, which was not grown in their regions.

The Florentine Codex, a 16th century ethnographic research labor written by the Franciscan friar Bernardino de Sahagún, implements insights into Aztec culture, documents the culture traditions, worldview religious cosmology, ritual practices, society and economics, also

history of the Aztec people and their involvement to vanilla.

Regarding Europe, in the early 16th century, Hernán Cortés and his conquistadors delivered vanilla hither in Europe (also he is credited with chocolate introduction). Initially used as a flavoring agent for chocolate until Hugh Morgan, an apothecary hired by Queen Elizabeth I, designed chocolate-free and vanilla flavoured sweetmeats* in the early 17th century. In addition, by the 18th century, the French were using vanilla as an addition to ice cream.

Then, in the early 19th century, French entrepreneurs delivered fruits of vanilla to the specific islands, on Réunion (Bourbon island heretofore) and Mauritius in the intention to manufacture. In a few decades, a serf of Réunion Island, Edmond Albius invented how to pollinate the flower manually: 1. An orchid blooms just once, and when it blooms it has to be pollinated by hand within 6 hours, or the chance of successful pollination decreases; 2. Counting the fact that the Melipona Bee is absent outside Mexico, each county cropping vanilla has to rely on hand pollinating, which is labor-intensive; 3. To pollinate a vanilla orchid pollen transfers from the anther (male organ) to the stigma (female organ) within the same flower. As an instrument use a toothpick or a small brush.

Before long, the vanilla orchids were delivered from Réunion to the Seychelles and Comoros Islands, also to Madagascar, along with the step by step instruction.

Mexico was the head vanilla producer, until the middle 19th century. And, according to the Statista, in 2030, the vanilla production in Mexico is expected to achieve the mark in 856.7 metric tons, an increase of about 67% compared to the quantity of vanilla produced in 2016, which summed to 512.78 metric tons. But Madagascar still manufacture vanilla in the bigger volume, namely from 2,000 to 3,000 metric tons…

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Cheese from soybens

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Tofu is a soybean product manufactured by coagulating soya milk, and pressing the gotten curds into solid briquettes, similarly to cheese making. The briquettes have the broad spectrum of consistency, which include soft, and silken, firm, or greatly firm factures. Due to the fact that the bean curd is thin in its flavour, so it can be consumed along with sweet or piquant courses. As well, the tofu is capable to absorb tastes and smells, similarly to a sponge (is similar even by its facture), so it can be seasoned or marinated according to the specific course. Belongs to the traditional Chinese cuisine.

Tofu, as a food, has low calorie value, containing a proportionately substantial quantity of proteins. It is high in iron by composition, and can be high in calcium and magnesium conditional upon coagulants, whom used in manufacturing (about them will be further).

Glancing on the history…

In times of Han dynasty, at first time the tofu manufacturing was recorded. According to one legend, Prince Liu An (179-122 BC) of Anhui province was attempting to invent an elixir of immortality, which must to contain soybeans (in his thoughts). In its alchemical process he curdled soya milk, designing tofu. The confirmation, that tofu has due origin from the Han Dynasty is a stone mural from an Eastern Han Dynasty tomb excavated in 1960. But some scholars are inclined to believe, that tofu in the time of Han Dynasty did not has such qualities for it be able to appraise as tofu.

In addition, there are other interpretations of the origin of bean curd, although they do not have specific evidences as a fact. So, one speculation suggests that the method of tofu manufacturing was discovered by accident, when unprepared sea salt had coagulated boiled soybeans due to the content of calcium and magnesium salts.

Another speculation declare that the Chinese acquired a knowledge of the method of curdling by emulating the practice of Mongolians or East Indians. Cuz the evidence is predetermined by etymological correspondence between the Chinese word rǔfǔ (乳腐), which means "milk curdled", used in the time of Sui Dynasty (AD 581–618) in relation to yogurt-like products or squashy cheese, more late beneath the influence of Mongolian milk products and its production methods, and the word dòufu (豆腐), which means "curdled beans" or tofu. The speculation is, but confirmations are not.

Though, tofu has been originated in the Han Dynasty, but until Song Dynasty (960-1279 AD) it did not be a such sought-after food.

There in China, tofu consumed according to the ritual as a food prepared for paying a visit the graves of passed away relatives. It is believed, that the spirits of the passed away have long have not their mandibles, therefore soft tofu is enough tender, in order to consume it. Before refrigeration was accessible in China, bean curd oftentimes sold in the winter time, since it spoils in cold winter's conditions. In the warmer months of year, fresh tofu became spoiled during a day.

Manufacturing technology

Regarding manufacturing, there are some aspects, that includes the soya milk getting ready, its coagulation to form of curds

(douhua), and the compressing into briquettes.

It is able to be comparable to the dairy cheese making, that includes coagulating the animal milk to shape curds, compressing, and curd maturation. The tofu-making processes are washing, soaking (because beans absorb water, thereby increasing in extent), grinding them in water, filtering, boiling, coagulation, and finally pressing.

Coagulation, a process, which depends on specific mutual actions, and performs by coagulants. The process includes several aspects, such as the diversity, protein percent share in raw product, cooking temperature, coagulation temperature, and more.

11S and 7S proteins are predominant part of protein content in soybeans. And the negative surface charges on specific globulins ofttimes force them to repel each other. Intensive heating soya milk denatures the proteins, reveals hydrophobic groups as a rule oriented in the direction of the inside of the globulin's posture. Cations from coagulants tie up the negatively charged groups. Since the net charges of protein molecules are neutralised, hydrophobic interactions exercise control over repulsive electrostatic charges, and protein aggregates are formed.

More about coagulants

There are two main categories of tofu coagulantes: salts and acids.

Regarding salts, calcium sulfate or gypsum is the traditional way to coagulate. It do tofu soft, but slightly fragile in facture, and does not has no taste. As well, calcium sulfate is the cheapest coagulant, cuz it extracted from firm geological deposits or natural sources, and does not needs no extra refining or chemical processing. When it is coagulating, the reaction is slower due to its low solubility, forms a smooth, more gelatinous facture, having relative water content. Commercial usage of calcium chloride makes tofu a market product, which contains a high quantity of calcium.

Or magnesium chloride along with calcium chloride. Represented salts are quickly-soluble in water, and have the same influence on proteins of soya milk. These coagulants use to make a smooth and gentle facture. In Japan, nigari (lushui) powder, which in main contains magnesium chloride, is manufactured from seawater then the sodium chloride is detached and the water vaporised. According on the manufacturing method, nigiri as well might to contain compact quantities of magnesium sulfate, potassium and calcium chlorides, and trails of other marine salts. Nigari, this term is derived from the Japanese word nigai, which denotes by its meaning the word “bitter”, although it does not impart a specific taste. By the way, cleansed seawater can be used as a coagulant.

Regarding acid substances, glucono delta-lactone (GDL), that also used in cheese making, forms a remarkably fine almost jelly-like facture. It is used mostly in the producing of "silken" or softer tofus, and imparts an indistinct acid taste to the goods. GDL is extracted from glucose, looks as a powder and keeps its form at room temperature. The six-membered heterocyclic ring, that it has by its molecular structure, is hydrolysed upon interaction with water, gradually reforming GDL into gluconic acid. When added to soya milk, it gradually oppresses the pH, triggers proteins to coagulate evenly across the blend, forming a smooth gel without air gaps, and during transportation is able to resists from damage. GDL used as well together with calcium sulfate to impart a smooth and succulent facture to soft tofu.

As an alternative way to coagulate and manufacture tofu you might to use acids, such as acetic or citric, but both substances are able to affect brightly the taste.

Factures

Unpressed fresh tofu refers to tofu that has not been squeezed from excess water. It is soft and delicate, perfect for courses where a creamier facture is desired, commonly used in smoothies, dressings, or soups. Unpressed fresh can be bittern-gelled or gypsum-gelled, depending on the coagulant used. For bittern-gelled facture used bittern solution (magnesium chloride).

Silken and black douhua. Silken tofu is made by coagulating soya milk without cutting the curd, resulting in a delicate, undrained tofu. It tends to be white and has a neutral taste, while black douhua, on the other hand, undergoes a different process and often includes the addition of black sesame or black beans, giving it a darker hue and a slightly nuttier or richer flavour.

Pressed fresh tofu, a firm or extra-firm tofu, is tofu that has been pressed to remove excess moisture, resulting in a denser facture compared to softer silken tofu. The pressing process makes it hold its shape better and allows it to absorb flavours more effectively when used in cooking. It is often used in stir-fries, grilled courses, or as a meat substitute due to its ability to hold up well during cooking without breaking apart.

Shredded dried tofu, or tofu bamboo, is a form of tofu that has been pressed, dehydrated, and then shredded into thin strips or noodles. It has a chewy facture and a concentrated flavour compared to fresh tofus. As well it commonly used in stir-fries, soups and stews, noodle courses, and salads.

Processed tofu refers to tofu that has undergone additional steps or alterations beyond its basic form. It could include various treatments, flavourings, or additives to manufacture different factures or tastes. Some examples of processed tofu include pickled or stinky tofu (seasoned or marinated), thousand-layered tofu, kori-tofu and shimidofu, or tofu products such as tofu hot dogs or burgers.

Thousand-layered tofu is a type of tofu that is been processed to produce multiple thin layers. These layers can be separated, resulting in a delicate, almost paper-thin facture. Thousand-layered tofu is commonly used in courses where its thin layers can be wrapped around fillings, used in rolls, or folded into various shapes.

Kori-tofu and shimidofu. Kori-tofu has been frozen, then thawed, resulting in a tofu with a firmer and denser facture. Freezing tofu makes a spongy and more absorbent structure, allowing it to soak up flavours better when cooked. It is often used in stews, braised courses, or grilled preparations. Shimidofu has a higher water content compared to kori-tofu. It is gently pressed to remove some moisture, giving it a slightly firmer facture than regular soft tofu, but not as dense as frozen tofu. Shimidofu can be used in various courses where a slightly firmer facture is desired.

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