{spices}. The universe of taste



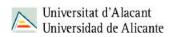


{spices}. The universe of taste

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Culinary use, cosmetic power and medicinal remedy

At first sight, because of their insignificant appearance and their small size, nobody would say that spices have been so powerful when it comes to influencing our history. In addition to giving character and personality to our dishes, they have served as a tradeable currency, driven the conquest of territories, provoked wars and transformed our social habits.

Spices seduce us for their aromatic and sapid power that can improve the organoleptic qualities of our recipes and transform the humblest raw material, enhancing its taste, colour and aroma.

Due to their antiseptic properties, they have played an important role in the pantry of various civilisations. Before household fridges came into our life (more or less around the 1930s), they solved a big problem: extending the shelf life of food.

Apart from their culinary use, aromatic herbs and spices have a high cosmetic and medicinal value. Their essential oils provide antimicrobial, antiparasitic, healing and anti-inflammatory effects, among others, and have thus always formed part of traditional pharmacopoeia.

Our attraction towards them has to do with many things other than their culinary or medicinal power, though. Wrapped in a mysterious air when they arrived by ship or in a caravan from the East, they brought an invisible cargo, a sack packed with superstitions and myths which attributed them magical and miraculous powers. Being exotic and coming from far-away and unknown lands, the merchants who traded with them helped to increase their legend with stories invented for the purpose of protecting their business against potential competitors.

What is a spice, a condiment and a culinary herb?

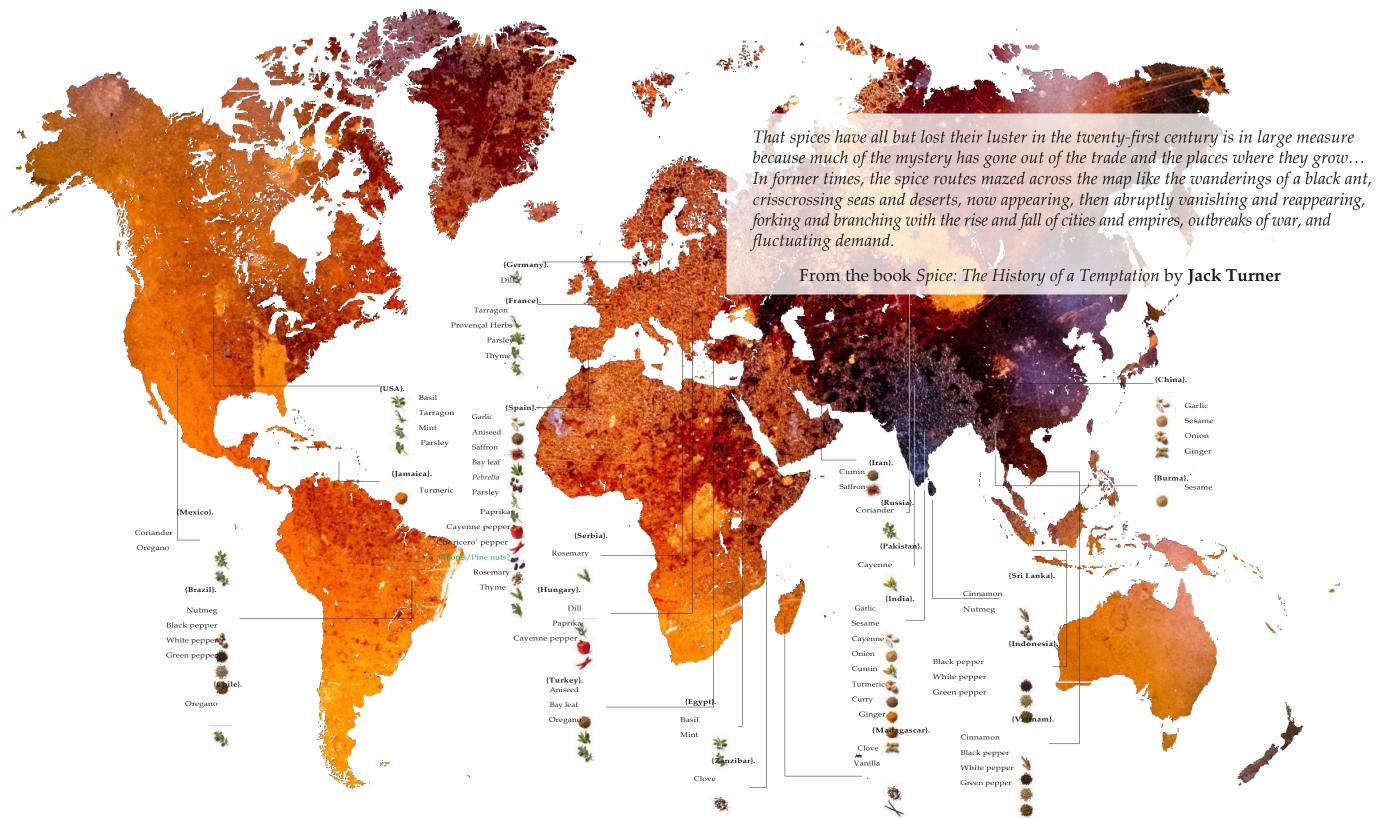
Neither spices nor aromatic or culinary herbs have well-defined boundaries.

Spice comes from the Latin term *species.* It refers to the hard parts of plants used to provide or enhance the taste, colour or aroma of food. It comprises: barks (like cinnamon), seeds (like mustard), pods (like vanilla), roots (like ginger) or berries (like pepper). This term is at times used by extension to describe the leaves of some plants or a part of their flowers (like saffron).

The expression **Culinary** Herbs refers to the soft parts, leaves or stems, of herbaceous or arboreal plants that we give a gastronomic use to, such as basil, bay leaf, oregano, parsley, thyme or dill, to quote but a few. Culinary herbs are generally autochthonous plants which were easier to obtain, and consequently cheaper, than spices.

Condiment is a preparation made from the mixture of aromatic herbs and spices which enhances food taste. Many condiments exist, curry being perhaps the most famous one, but bouquet garni, fine herbs, Provençal herbs or ras el hanout are well known too.





{saffron}.

Small-sized strands which hold huge potential

Saffron comes from the stigmas of the flower *Crocus sativus L*, of the Iridaceae family, highly appreciated from antiquity, because it naturally provides food with a slightly bitter taste, a powerful aroma and a characteristic colour.

Early in November, fields turn purple. The saffron harvest lasts between 15 and 20 days and the first flowers show from each planted bulb or onion; they come out closed at dawn, and gradually open as the day progresses. They are collected one by one, cutting the flower with the nail of the thumb, pressing on the index finger and putting it in baskets carefully to ensure that they are pressed as little as possible.

Three flexible and aromatic red-coloured stigmas are born in the ovary of the flower; they are the saffron blades or strands which are joined to a white filament: the style. They are detached from the flower through a delicate manual process known as "desbrizne [unblading]" or "monda [peeling]."

After being extracted, the strands are dried through toasting over a low fire to make sure that they lose moisture, have a better appearance, a more intense aroma and a stronger colouring power. Its characteristic hue, its slightly earthy taste with sweet and bitter shades, as well as its fragrance which some critics have compared with that of hay, have turned saffron into the queen of condiments and into a legendary symbol of quality.

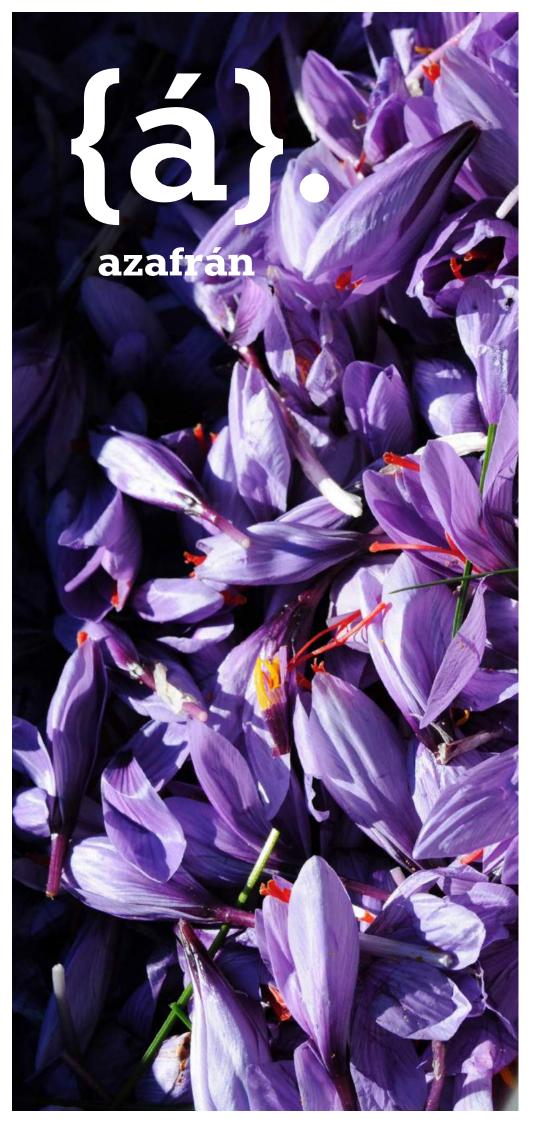
There are different kinds of saffron with distinct features according to their place of origin and the style flower remains which they contain. The stigmas and ends of the dried saffron styles have a variety of pharmacological effects, e.g. antioxidant, anti-inflammatory, anti-atherogenic, lipid-lowering, cytotoxic, hepatoprotective and neuroprotective. These properties are due to some of its components and its derivatives, also related to its organoleptic characteristics, such as crocine, crocetine and safranal. The effectiveness of these compounds for the treatment of neurodegenerative diseases like Alzheimer's, Parkinson's or Retinitis Pigmentosa is currently under study.

after roasting it.



{especies}.

In order to take full advantage of saffron qualities, experts recommend to infuse one gram of strands in 250 ml of water



SAFFRON

Although it is a well-known fact that it has a high market value, we must bear in mind that its price is offset by its high performance; a small amount suffices to achieve the desired effect.

According to estimates, ca. 50,000 flowers (equivalent to a growing area the size of a football pitch) are needed to obtain 0.45 kg of dry saffron. However, a few strands are enough to transmit its properties to a recipe.

Due to the difficulty involved in its cultivation and to the amount of labour required for its harvesting and unblading among other reasons, the surface area dedicated to saffron growing in Spain has dramatically decreased, to such an extent that our country, which was once the world's leader in the export of saffron, has gradually begun importing saffron from other countries.

Saffron refuses to sleep on the spice shelf forever; it has a use-by date, since it loses its properties with the passage of time.

When it comes to preserving saffron, it must be remembered that humidity reduces its aromatic qualities, and that it loses colour when exposed to the light. At present, the companies which commercialise it protect the product so that it can reach the consumer in optimum condition; however, in the past, the already toasted strands were wrapped in cotton handkerchiefs which were kept in metal boxes.

{especies}.

palue, high fect. size of trands int of isons, has bas begun date, educes resent,

7

{paprika}.

Paprika: orchard blood

Paprika is an essential ingredient in a large number of recipes of our gastronomy. It is in fact nothing more nor less than the powder obtained from crushing dry peppers. In its origins, paprika came from hot pepper (vegetable) and was used as a pepper (powder) substitute.

It started being produced as an industrial preparation in the early 19th century; prior to that period, its homemade preparation made it possible to have colour and taste outside the pepper harvest period.

The organoleptic properties of paprika depend on several factors, including the quality and variety of the fruits used, mainly from the Capsicum anuum L. species, grown hot (spicy) and sweet, and C. frutescens L., always hot in general. An influential role is also played by the dehydration process that it goes through, which may be: natural drying through a prolonged exposure to the sun, in hot air tunnels or drying with smoke. The thinness of the particles obtained from grinding also becomes relevant when assessing paprika.

In addition to aroma and taste, paprika helps to colour our dishes. In this respect, it is worth bearing in mind that the bright and colourful paprika with a strong and intense red hue is not necessarily the one which adds the most colour to a preparation. A rule exists which does not usually fail, though: the paler paprika looks, the spicier it is.

Paprika has another added value, its bactericide properties, which contribute to preserve food; in other words, paprika is not only added to cold meats for gastronomic reasons.

brines, etc.



{especies}.

The characteristic smoked taste of paprika is exceptional in cold meats, stews, garlic soups, pickling





BOX OF SEEDS

Few foods can boast like pepper (vegetable) of having so much diversity. It comes from an herbaceous plant belonging to the Solanaceae, of which 2,300 species exist distributed around the world, and to which tomato and potato belong too.

Pepper specifically belongs to the Capsicum genus originated in American tropical and subtropical regions. This name comes from "capsa," which means "box" in Latin and refers to a skin wrapping with many seeds inside it.

Because pepper seeds are easily transported, remain undeteriorated for a long time and are not particularly difficult to grow, pepper began entering Spain, extending to the neighbouring Portugal and reaching Italy and France, subsequently becoming widespread all over Europe.

The Spanish word "pimiento" [pepper (vegetable)] has nothing to do with "pimienta" [pepper (powder)], even though they are phonetically similar. This similarity is due to the description initially made by Christopher Columbus. When he tried what we call chili pepper or chili (ají) nowadays, he described it as "pepper in pods" a name which has stayed for posterity.

Therefore, when we speak about different kinds of chili or cayenne (ají, guindilla...), we are referring to a group in the family of peppers of which varieties exist throughout the world. Its success derived from capsaicin, a component present in hot peppers which gives them the burning taste that allowed them to become substitutes of black pepper Piper nigrum L. which had a long culinary and commercial tradition between East and West.

Capsaicin has been widely studied for its analgesic properties and we can check that it forms part of various medicines, as an active principle in creams and patches for pain treatment. Capsaicin stimulates and desensitises skin nociceptors, thus preventing the latter from responding to stimuli which usually cause pain. The European Medicines Agency has approved the utilisation of the fruits of Capsicum annuum L. var. mínimum (Miller) Heiser and Capsicum frutescens L., based on a well-established topical use, to relieve muscular pains like low back pain.

{peppers}.

Black, white and green pepper

The most common peppers in our markets are the black, the white and the green one. All three of them come from the same plant, *Piper nigrum* L., an evergreen vine originated in Malaysia, Indochina and India.

Its fruits are small, round berries. Green pepper is the berry collected unripe, and it has a fruity and moderately spicy taste. Black pepper is the half-ripe berry subject to sun or heat drying which becomes wrinkled and darkens. It is consumed both ground and in powder. White pepper is the already ripe fruit immersed in water to remove its outer pulp.

It is one of the most highly appreciated condiments in human history and the most consumed spice worldwide. It even came to be considered a currency, like gold or salt.

The Greeks, who were masters in the art of bakery, included pepper among the ingredients of their baking ovens, aromatising sweets with peppercorns and making breads with milk, pork fat and pepper.

The Romans considered pepper aphrodisiac and digestive and used it for medicinal purposes. They exported it to Egypt, its Northern African territories and Iberia.

Spices arrived in Europe as imports from the East in the Middle Ages. Genoese and Venetian traders monopolised their distribution. Pepper became increasingly important and, thanks to it, taxes were paid, income estimated, dowries made, and the freedom of slaves bought.

the table.

{especies}.

It is the only spice which can be used up to three times in the same recipe: first, meats are seasoned with salt and pepper, then ground pepper is sometimes added during cooking, and it finally appears on





APHRODISIAC PEPPER

The word aphrodisiac has its origin in the goddess Aphrodite, in Greek mythology, the goddess of love, beauty and reproduction. Some foods have been considered aphrodisiac since antiquity, sometimes for their shape, on other occasions because they arouse our senses through their exotic fragrances, and at times for their vasodilatory properties.

Different cultures have regarded pepper as an aphrodisiac, including it in the list of stimulating foods which "produce heat and voluptuousness." Even though these effects are not based on any scientific evidence, it is interesting to resort to pepper when preparing dishes with which we want to surprise, since seduction may as well start in the palate.

The fruit of Piper nigrum L. pepper is rich in essential oil and alkaloids. The green fruit causes an increased secretion of saliva and gastric mucus. Several studies have proved that pepper has antiinflammatory and antioxidant effects. The use of chest cataplasms has been popular for the treatment of bronchitis. Given its rubefacient effect, pepper can topically prove helpful in osteoarticular inflammations, myalgias, neuralgias, muscle contractions and furuncles, but beware, because it may have an irritant effect on the skin and the mucous membranes and trigger allergic reactions.

Other peppers:

Jamaican pepper, Pimenta dioica (L.) Merr. Sichuan pepper, Zanthoxylum simulans Hance Japan pepper, Zanthoxylum piperitum (L.) DC Guinea pepper, Piper guineense Schumach Bengali pepper, Piper longum L. or long pepper Pink pepper, Schinus terebinthifolius Raddi

{especies}.

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{salt}.

Salt, the only edible stone

Sodium chloride, common salt or table salt, referred to as halite in its mineral form, is a chemical compound with the molecular formula NaCl.

It is basically obtained in two manners: as a water sea precipitate —a process known as salt flats—; and through the exploitation of sites from where rock salt is extracted.

Different ways exist to classify salt according to its origin, the place where it is extracted or harvested, its content in trace elements (calcium, iodine, potassium, magnesium...), its texture or shape (fine, thin, salt crystal,...) its water percentage (wet or dry...), its colour (red, pink, black, grey...) and its provenance.

Salt forms part of our daily routine, and it is so cheap and so widespread around the world that its extraordinary history often goes unnoticed. It has generated trade routes, been the centre of all sorts of ceremonies, sustained monopolies and financed wars. It has served as a tax and a hard currency. Before the appearance of refrigerating and freezing systems, it was the preservative that extended the shelf life of food.

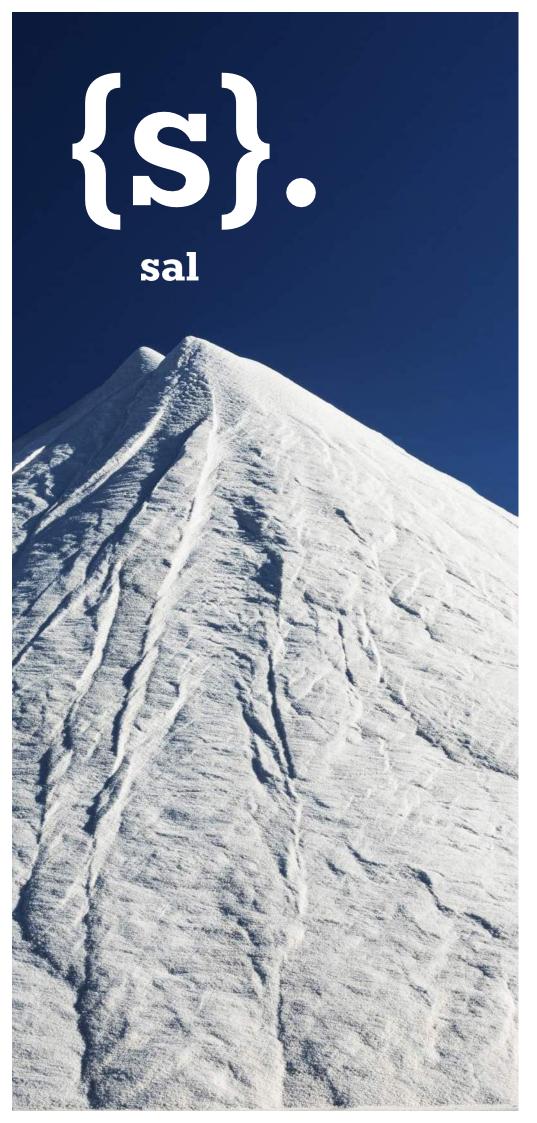
Most historians agree on the assumption that the name salt comes from the old city of Es-Salt, located close to one the world's most popular salt sources, the Dead Sea. We currently know that salt can be produced nearly everywhere in the planet, but we did not become aware of this until it was disclosed by modern geology. Until then, mankind desperately looked for salt.

One of the main characteristics of salt is its huge versatility, with a number of recorded applications amounting to over 14,000.

{especies}.

WHO has established that the daily salt intake should not exceed five grams (the equivalent to a teaspoonful). Each Spaniard consumes almost twice as much. 20% of all the salt that we ingest is added while cooking and at the table, but more than 70% is hidden in processed food.





SALT

There are so many types of salt that the same dish may offer a variety of shades depending on the salt that we use to season it. Professional cooks use a wide range, since salt provides much more than a salty taste, it adds shades, textures and sensations to the palate.

Common salt is the most frequently used among the large variety of existing mineral salts.

"Fleur de sel [flower of salt] stands out as one of the most highly prized varieties." It is produced on some summer days through thermal contrast; a thin layer appears on the salt marsh surface which is hand-harvested. Being purer and unrefined, a smaller amount is used. We add it to already cooked food on which it easily dissolves and melts.

Other types of salt include:

- Maldon Salt. It comes from Essex, England. It is white, with pyramid-shaped flakes. Perfect for grilled meat.
- Guérande salt from French Brittany. Grey, middle-sized crystals. Suitable for charcoal-grilled meat and fish.
- Himalayan Salt. Pink, slightly granulated, formed by marine deposits dating back to more than 150 million years, rich in trace elements. Grate the salt rock over the dish.
- Indian Salt. Black-coloured and with a volcanic origin. High content in sulphur compounds. Soft, low salting power.
- Hawaiian Black Pearl Salt. Made up of sea salt and active charcoal. Shiny, crunchy and with a slightly smoked taste.
- Hawaiian Red Alaea Sea Salt. Irregular granulation. It contains volcanic clay sediments, a slight walnut touch.

Many more types of salt exist, even flavoured with other foodstuffs, such as tomato salt or herb salt, to quote but two.

{rosemary}.

Rosemary and thyme can be found in the country anytime

Rosemary (Rosmarinus officinalis L.) thrives in dry, sunny areas sheltered from winds. It grows near its inseparable friend and ally, thyme, with which it shares preferences for the type of climate and soil.

It is easy to find; as the Spanish saying goes, "Romero y tomillo en el campo los pillo" [Rosemary and thyme can be found in the country anytime]," especially if we are in Andalusia, in Murcia, in the Valencian Region, in Catalonia or in the Balearic Islands, which host the largest populations. Because of its easy cultivation, it is used in garden design and can be easily grown in a flowerpot for our kitchen supply.

Rosemary is an essential culinary herb in the classical cuisine of the Mediterranean Arc, its natural space. Its thin, pointed leaves with an intense, powerful and astringent taste remind us of pine needles. When used fresh, they have a bitter touch, hence why it is advisable not to use an excessive amount.

Macerated in oil or in vinegar, it can give a distinct touch to our salads. In the case of Valencian paella, a sprig of rosemary is added at the very last moment to achieve a more rustic flavour. It mixes well with white meat, which it makes tastier: chicken, turkey and with others such as rabbit meat too. It aromatises cheeses, which are coated with a layer of rosemary. It is likewise used in the spirit industry and in the preparation of herb liqueurs and tisanes. It belongs to the group of "Provençal herbs" which includes rosemary, thyme, oregano and marjoram, and to which tarragon, chervil and bay leaf are sometimes added.



{especies}.

To obtain a different dressing, put a sprig of fresh rosemary and a clove of garlic into a bottle of oil and let it rest for a month.



THE POWERS OF ROSEMARY

Botanical superstitions are as old as the human being; they date back to prehistory, when we ate all sorts of ripe fruits and the softest part of plants, berries, stems, young leaves, leaf buds, flowers or seeds in the need to identify which ones were edible and which were harmful to our survival.

Since then, the extraordinary power that popular belief attributes to plants has made them become miraculous, medicinal, prophetic, sacred, mortuary or immortal. Rosemary was going to be no exception.

It is associated with plenty of therapeutic properties. According to Spanish folk sayings "De las virtudes del romero, se puede escribir un libro entero [A whole book can be written about the powers of rosemary]" or "Mala es la llaga que el romero no sana [A sore is really bad if it cannot be cured with rosemary]," since rosemary has a certain antiseptic and healing activity.

Corpus Hipocraticum already recommended rosemary to prevent spleen and liver diseases.

It has been used to disinfect the rooms of the sick, and during plague epidemics, people carried a sprig of rosemary which served to distract the smell when walking around an affected area.

Rosemary has been given different nicknames: "the herb of wreaths" because the dead were buried with a sprig of rosemary in their hand or with a wreath of rosemary and myrtle; and "the plant of students," since it was believed to stimulate memory in Ancient Greece.

The European Medicines Agency (EMA) approves the utilisation, based on traditional use, of preparations made with rosemary leaf and its essential oil, by mouth, for the symptomatic treatment of digestive disorders and in cases of mild gastrointestinal tract spasms. They are used externally as additives in baths and in a variety of pharmaceutical forms, such as creams or alcohol solutions. Its use is accepted as an adjuvant in the treatment of mild muscle and joint pains as well as peripheral circulatory alterations.

{thyme}.

Thyme: a taste of landscape

It is a resistant shrub which grows wildly throughout the Western Mediterranean. It belongs to the *Thymus* genus, which comprises more than 60 different species, sometimes hard to distinguish at first sight due to their morphological similarity, like common thyme (*Thymus vulgaris* L.), sauce or olive thyme (*T. zygis* L.), winter thyme (*T. hyemalis* Lange) or Andalusian thyme (*Thymbra capitata* (L.) Cav., among others.

Its name derives from the Greek verb *Thym*, which means to perfume, in reference to its intense and penetrating aroma, a term which in turn comes from *Tham*—used to designate a species utilised as an ointment for embalming in Ancient Egypt.

It is a small resistant bush that can be easily found when we stroll in the countryside. It thrives in dry, open and sunny areas.

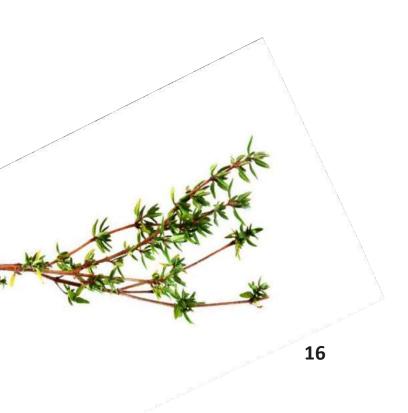
Thyme tastes of landscape, of Mediterranean mountain. It is used to season tomato sauces and added to soups, and it aromatises meat barbecues. It also stands out for being one of the herbs most often used to prepare olive pickles and dressings. It is utilised in snail and mushroom recipes. It serves to dress salads and to season vegetable dishes, as well as in the production of oils, vinegars, aromatised salts, herb liqueurs and infusions.

Thanks to its versatility, it becomes essential in several classical herb combinations such as "bouquet garni," a mix of herbs used as a soup aromatiser in French cuisine, and "Provençal herbs."

Natural medicine associates it with an improvement in common discomforts. Medicinal properties were already attributed to thyme since antiquity, the Egyptians used it to embalm, the Greeks utilised it as an antiseptic and also as an incense to perfume their temples. Thyme has antiseptic, antispasmodic and antitussive properties. The European Medicines Agency currently accepts the utilisation of the thyme flowerhead as an expectorant for colds, based on its traditional use.

{especies}.

Drop a sprig of thyme on the barbecue embers so that it can provide an aroma to meat, vegetables and fish.





THE ROMAN RECIPE BOOK

Roman cuisine saw spices as exotic products which came from distant countries, reached extremely high prices and therefore constituted a visible symbol of power and distinction. They even used condiments too much, as can be inferred from the only cookery treatise of antiquity which has survived more or less complete to our day and which contains the recipes that were served at the great Patrician tables during the first centuries of the Roman Empire. Although the manual written in Latin under the title of "De re coquinaria" is largely attributed to the Roman gastronome Marcus Gavius Apicius, it might have not been written by him, or at least not only

by him, and it could come from a fifth-century manuscript to which successive additions were made.

"De re coquinaria" is one of the best sources that we have available to know Imperial Roman cuisine because, apart from showing us in detail how the most sophisticated recipes were prepared, it tells us about the products used and teaches us cooking tricks. Thyme, with which fish and meat were macerated and sauces were made, is one of the spices frequently mentioned in this manual.

{nutmeg}.

Nutmeg and mace

Nutmeg and mace are two spices coming from the nutmeg tree *Myristica fragrans* Houtt. It is a tropical, highly aromatic tree with a productive life of over forty years, each tree giving ca. 2,000 fruits per years.

Nicely wrapped like luxurious gifts, the nutmeg (which is the seed) appears covered by a finetextured shell (testa). This shell is protected by a (fleshy) aril, a sort of strong-red-coloured soft mesh grid from which mace is obtained. Both of them are covered by the fruit in the form of two valves, as if it were the outer skin of an almond.

It is harvested when the fruit falls to the ground. The mace is extracted, and we let the shell which wraps the nutmeg become dry and crunchy so that it can be more easily cracked. The nutmeg is smaller than a cherry, brown, hard and egg-shaped. It has an aroma reminiscent of clove and a sweet, slightly spicy taste. When we grate it, we can see its interior with brownand cream-hued veins.

As for mace, it is commercialised in sheets or ground. Its organoleptic properties strongly resemble those of the nutmeg, although with a more intense fragrance and a less sweet taste. Where mace really outperforms nutmeg is in its power to colour food. Unlike nutmeg, which provides nothing in that respect, maces dyes dishes with a yellowish tone similar to that of saffron.

{especies}.

The taste of purées and creams (courgette, spinach, pumpkin, leek...) improves by adding a pinch of nutmeg.



nuez moscada

NUTMEG

Until the mid-19th century, nutmeg and mace were only produced in the Banda Islands, in the Archipelago of the Moluccas. Because they were exclusively found in a single place, speculations about their trade, distribution and price have been a constant feature.

The population of these islands used a barter system to exchange both spices with Arab merchants, who sold them without revealing their origin and achieved high profits at the Italian port of Venice, which assumed their distribution across Europe, where they were highly appreciated.

The Portuguese were the first Europeans to reach these islands (1512), which they called Crazy Islands because of the difficulty involved in sailing between them and gained control of this lucrative trade until the Dutch took it from them in 1602, when they created the Dutch East India Company. This organisation was devised by the Dutch government to finish with the frequent private expeditions undertaken by its fellow citizens in search of spices. These travels brought huge profits if successfully completed, but they entailed a great risk (adverse weather conditions, shipwrecks, pirate attacks, diseases) and generated competition among the Dutch themselves, lowering the prices of spices, which arrived in larger amounts to the distribution ports. The Dutch Company unified the interests of the country and its trade. It eliminated the traditional barter system and established a currency-based price table. The achievement of a turnover and large profits helped the Dutch state to enhance its naval development, to increase its colonies and to finance its wars.

{cinnamon}.

Sweet wood

Cinnamon is the dry bark of various trees belonging to the *Lauraceae* family. It was used as a perfume from antiquity and highly valued for its medicinal properties.

There are different types of cinnamon according to the tree they come from, though all of them belong to the Cinamomum L. genus. Different quality levels also exist depending on the part of the tree from which cinnamon has been obtained and on the crop to which it belongs.

The most highly valued one in Europe is that of *Cinnamomum zeylanicum Nees*, popularly known as the cinnamon tree from Sri Lanka. It is obtained through a process similar to the one used to obtain cork from the cork oak. The cinnamon tree is coated with a double bark which can be easily detached from the trunk making some cuts in the form of sheets. These sheets are dried and rolled up as if they were the leaves of a cigar. The tree regenerates its bark after a couple of years.

The cassé, cassia or Chinese cinnamon obtained from the tree C. cassia (L.) J. Presl is the most widely utilised in América. Its taste is less delicate, slightly spicy, and it has a tougher appearance. Despite accounting for a high percentage of the cinnamon consumed worldwide, it is considered to have lower quality and has been dubbed with the name of *bastard cinnamon*.

The term "cinnamon" also identifies the production of the C. loureiroi Nees or Vietnamese cinnamon tree, even though it is more similar to cassia, with which it shares characteristics like the rough and uneven surface, a not-so-delicate and more complex taste, as well as a more pronounced aroma.

and a sweet taste.

{especies}.

Stirring coffee with a cinnamon stick instead of a coffee spoon will give it aroma





THE PHOENIX

Mythology relates the fragrant and stimulating cinnamon to the immortal Phoenix that lived in the Garden of Eden and rose from its ashes every five hundred years.

The Roman poet Ovid tells in his Metamorphoses that, when this bird is five centuries old, it climbs to the highest branch of a palm tree to build a nest covered with cassia and ears of soft spikenard, with crumbled cinnamon and with myrrh, on which it lies down to be devoured by the magical fire immersed in perfumes. A new and young Phoenix is born from those ashes.

The sacred books of the different religions include numerous quotes about cinnamon. Aromas have always been a communication link between humans and the afterlife. Exquisite fragrances were offered to the gods for the purpose of appeasing their fury, and aromas represented a symbol of heavenly approval. The Spanish phrase "morir en olor de santidad [to die in the odour of sanctity]" means that when the blessed and martyrs died, instead of giving off a disagreeable smell, they flooded the atmosphere with magnificent aromas usually described as being sweet.

Cinnamon is a highly present ingredient both in medieval cooking and in that of Renaissance. In France, the star condiment during the Middle Ages was ginger, even though saffron, pepper and cinnamon were abundantly used as well. Cameline is an example of a fourteenth-century sauce prepared with bread, grape juice, ginger, pepper and cinnamon.

Cinnamon has formed part of traditional pharmacopoeia as a remedy to favour blood circulation, to relieve fever, to make digestion easier and to regulate the menstrual cycle. Some testimonies describe how a piece of cinnamon was desired and coveted like a treasure.

The European Medicines Agency currently accepts the utilisation of the bark and the essential oil of C. zeylanicum Nees (Cinnamomum verum J. Presl), based on its traditional use, for the symptomatic treatment of mild digestive complaints and mild diarrhoea.

{clove}.

Clove, seven times more valued than gold

Clove is the dry unripe bud of the clove flower or the clove tree Syzygium aromaticum (L) Merill & L.M. Perry, an evergreen, highly aromatic tree which reaches heights between 8 and 12 meters.

The earliest references to clove date back to the Han dynasty in China (206 BC – 220 AD). *Ting*biang or clove spice was used to refresh the breath of courtiers when they had a hearing with the emperor. It is still used to fight bad breath today, being included in the formula of some toothpastes.

Before the modern age, clove was a botanical oddity. It grew in five tiny volcanic islands of the Moluccas, also known as Spice Islands (located east of what the Indonesian archipelago is today) coveted throughout history for being -together with Madagascar- the two places where clove was harvested, and the only one where nutmeg could be found. Both spices brought Indian, Arab and Chinese merchants —and later the Portuguese, the Spanish, the Dutch and the English— face to face over the control of these islands and the monopoly of their trade. Clove was so valuable that it even reached a price seven times higher than gold in the market.

Clove has provoked international conflicts and led to risky voyages like the one undertaken by Magellan in 1519 with five ships and 380 men. That enterprise cost him his life. Three years later, under the command of Juan Sebastián Elcano, the expedition arrived in Sanlúcar de Barrameda (Cadis) with only one ship, 18 survivors and the ship's hold loaded with a treasure for the crown, the prized cloves.

consuming.



{especies}.

Put some chunks of cheese in olive oil, add cayenne pepper (chili or "ají") and a couple of cloves, let it rest for at least two days before



RICH IN EUGENOL

If we take clove and crush it against our fingers, a persistent sweet and penetrating aroma will perfume our hand for hours.

Its essential oil, rich in eugenol (approximately 85%), has antiseptic and anaesthetic properties. Eugenol is also present in bay leaves, cinnamon and nutmeg, even though clove is one of the spices with a higher percentage of this substance.

Cloves have traditionally been related to possible benefits for the digestive system, being used in the form of decoction to relieve nausea and vomits and to reduce flatulence. The essential oil has been utilised to treat toothache and mild mouth and skin infections.

Clove has also played a leading role in mumbo-jumbo and beliefs. At a certain time, it was believed that rubbing cloves against the gums sufficed to cure headache and that they chased away demons if placed in the nostrils.

The European Medicines Agency currently approves the use -based on its traditional utilisation – of clove essential oil in inflammatory processes of the buccopharyngeal mucosa and for a temporary relief of toothache caused by dental caries (which will not free us from visiting the dentist as soon as possible).

{bay leaf [laurel tree]}.

He who plants a laurel tree will never see it grow

The laurel tree *Laurus nobilis* L. originated in the East Mediterranean and Asia Minor, from where it spread to the rest of Europe and America. It is a long-lived and resistant tree, but also a slow-growing one; hence why it gave rise to the proverb "el que planta un laurel nunca lo verá crecer [he who plants a laurel will never see it grow]."

Its leaves —both fresh and dry— are used in cooking. When fresh, they provide a bitter touch and are present in Italian cuisine. Spanish cuisine uses them dry to add a fresh and slightly spicy note to preparations.

It forms a perfect marriage with vinegar, proof of which can be seen in the high number of pickling brines with different types of blue fish, such as sardine, tuna or mackerel, where these two ingredients join forces. It is also utilised in poultry and game meat marinades. It gives an interesting shade to vegetables pickled in vinegar, legumes and marinades. It ideally combines with stews in which wine is present and to cook seafood and bivalve molluscs such as mussels, clams and cockles.

Bay leaves are used in traditional medicine; in tisanes, steam baths or in the form of liniment, for cases of lack of appetite, gastrointestinal spasms or bronchitis, among others. Its essential oil, mainly composed by cineol and eugenol, has been traditionally utilised as a painkiller in rheumatic pain. Because of its wealth in aroma and properties, it appears in the composition of perfumery products, creams, lotions, soaps and shampoos. The oil obtained from the fruits has been popularly used in the treatment of osteoarticular inflammations and against lice.

{especies}.

It is a natural air freshener. Put a handful of bay leaves on the boil and bad smells will disappear.





THE SYMBOLIC VALUE OF TREES

Trees had an important sacred value in antiquity. They symbolised knowledge and the connection with what lay beyond the earthly world. That is why wizards and sybils put tree leaves around their heads.

The fountain of Castalia, surrounded by a laurel tree forest, was located in the Oracle at Delphi -a sacred space where the Greeks went in search of predictions. The pythia or pythoness was in charge of interpreting the oracle messages for mortals. Later on, third- and fourth-century Christian authors ridiculed pagan religions drawing pythonesses drunken, chewing bay leaves and frothing at the mouth.

Mythology, legend and symbology surround the laurel. Under the assumption that it provoked prophetic dreams, its leaves were thrown to the fire; if they burned sizzling noisily, that was a good omen. The Greek poet Homer (8th century BC) narrates how laurel branches had the quality of permitting to see the future and how Cretan legislators consulted the laurel (leaves) before making important decisions and enacting laws.

Different hypotheses exist on whether the word laurel comes from Celtic laur green, or from Latin laudo honour. What we can surely state is that the term laureate referring to someone who has achieved some recognition has its origin in this plant.

Greeks and Romans used tree blossoms, branches and leaves for their rites. Myrtle and olive crowned the heads of victorious athletes in Olympic games and laurel crowned that of winners in drama and poetry contests.

{especies}.

They t lay and eted in search reting ntury messes er the irown i. The es had lators s and Celtic hat the on has

{cumin}.

I don't care a "cumin"

The most common cumin is the fruit of a plant belonging to the *Cuminum cyminum* L. species. Its taste can be defined as sweetish; it reminisces of aniseed, with bitter and slightly spicy notes. Its aroma is extraordinarily fine, sweet and friendly.

Greek cooks, very keen on seasoning stews with a wide variety of spices, used cumin.

Roman chefs also took advantage of cumin powers. Pliny the Elder mentions it in his Natural History (1st century BC) as a highly appreciated spice which was mixed with bread, water and wine. The Roman cookery book attributed to Caius Apicius refers to what people regarded as delicacies at the time: "And when you drink, ask for titbits like these to be brought to you: simmered sow stomach or womb, on a bed of cumin, acrid vinegar and silphium juice: and the tender breed of roasted birds, when offered by the season."

It was possibly the Arabs that introduced cumin in Europe through al-Andalus. Arabic-Andalusian cuisine reserves an important role to spices and aromatic herbs, plenty of records existing of references to cumin, saffron, ground aniseed, caraway, fennel, parsley, mint and coriander.

Due to its tiny size, cumin has given rise to Spanish phrases like "me importa un comino [I don't care a «cumin» (= I don't care a fig)]" or to adjectives like "cominero" to describe someone who wastes too much time with minutiae [cominerías in Spanish]. Despite being a cheap spice at present, the gastronomic and physiotherapeutic value of cumin was high in different stages of its history.

to the rice.



{especies}.

In order to give a different touch to a boiled rice garnish, heat a teaspoonful of cumin on a frying pan with a few drops of oil and a chopped head of garlic, and add



BLACK CUMIN: THE OIL OF PHARAOHS

Black cumin or the nigella seed Nigella sativa L. is a plant

belonging to the Ranunculaceae family, used as a medicine and as a therapeutic remedy, and very well known in Asia and throughout the East. It was utilised medicinally in Ancient Egypt, its seeds serve to make an oil, cold pressed to preserve its biological properties, and it used to be known as the "oil of pharaohs." Cumin enjoys popular appreciation for its carminative properties. It has been used to relieve heavy digestions, as well as in dishes which cause flatulence, such as those made with chickpeas, broad beans, cauliflower, cabbage, etc. Folk wisdom adds it to the German sour cabbage "sauerkraut," to the "falafel" or chickpea croquette and to cooked broad beans in Pakistan, India and Arab countries. As a reminder of its Andalusi past, the Ricote Valley in Murcia (Spain) has kept a lamb stew seasoned with plenty of cumin called "Pebre."

{oregano}.

Joy of the mountain

Linnaeus attributed to this plant a name which Theophrastus (4th century BC) gave to a certain aromatic plant, the name of which derives from Greek oros mountain and ganos joy; hence its nickname: "joy of the mountain."

A more accurate name for it would have been Amaracus, as other botanists called it in memory of the legendary servant of the King of Cyprus Ciniras who, saddened after spilling a valuable perfume of his master's, asked the gods to be transformed into the marjoram plant that formerly bore its name and was frequently mentioned by Virgil, Pliny and Saint Isidore, among other classical authors.

Oregano comprises several species of plants used for culinary purposes, the most common one being Origanum vulgare L., originated in the Mediterranean and often grown in orchards. Some eighty varieties of oregano exist, including Origanum virens Hoffmanns & Link - the wild species in Spain—, Origanum paui Martínez, the most fragrant of all, cultivated in orchards located along the Spanish coastline and of unknown origin which probably corresponds to the almoraduz of Hispano-Arabs, Cretan oregano (Origanum dictamnus L.), Greek oregano (rigani) or French oregano (Coleus amboinicus Lour). Furthermore, the name "oregano" is used in some areas to refer to the marjoram Origanum majorana L., which has an aroma similar to that of oregano, but a different taste; less spicy and more sweetish.

The Greek comedies of the 4th and 3rd centuries BC already contain references to oregano (which they used to give wine a special bouquet), cumin, coriander, saffron and sesame, but not to eastern spices. This does not mean that spices were unknown, but simply that, because of their higher price, only the richest could have access to them.

Oregano has a strong food transforming power. It suffices to sprinkle some plain vegetables, a simple tomato or a roast onion with oregano to check it. Its aromatic power, along with its slightly bitter taste, perfectly combines with chicken meat or pork.

{especies}.

Roast an onion, put an anchovy in the heart, add a trickle of oil and sprinkle with oregano.





OREGANO

The Spanish popular saying "Quiera Dios que orégano sea y no se nos vuelva alcaravea [May God grant us that this is oregano and that it will not become caraway]" shows that positive values were attributed to oregano, lower quality being associated with caraway, a spice with a slightly spicy and aniseed-like taste formerly used as a condiment and in the preparation of breads and cakes.

Caraway Carum carvi *L. is also confused with cumin because its taste, size and appearance are similar. In fact, it has come to be known as* meadow cumin too.

Without a doubt, the most popular Spanish saying to which this plant has given rise is "no todo el monte es orégano [not the whole mountain is oregano]," which means that not everything is valid or good.

Traditional medicine describes it as a plant with antioxidant and antimicrobial properties which is also antiseptic, expectorant, tonic and digestive. It has an active ingredient, carvacrol, which inhibits the growth of various bacterial strains. According to Chinese medicine, its properties make it become a good option to treat mouth sores, to relieve stomach ache, to calm cough, to heal wounds or to treat rheumatism.

{especies}.

no se gano sitive peing and n the ize and n the ize and bo. plant whole lid or t and ic and ts the ne, its es, to treat

{parsley}.

The parsley of every sauce

Parsley is a friendly herb, both because it is always willing to share the growing space with other plants and for its qualities which help to enhance dressings and seasonings. It goes with nearly everything; there is no ingredient that can resist it.

It is generally used to prepare and decorate dishes. Only on very few occasions does it play the starring role, save for exceptions such as green sauce and some vinaigrettes or dressings.

It belongs to the *Petroselinum* genus of the *Apiaceae* family, widespread throughout the world but associated with the Mare Nostrum, where it is an omnipresent ingredient of Mediterranean diet dishes.

The Greeks called it *petroselino*, which would mean something like "celery which grows in stones." They classified five celery species, the most common of all being orchard celery, our parsley.

Its use for cooking became popular in the Middle Ages. Monks started to grow it in convent orchards and made it become a usual condiment in the pantry.

The two most common types of parsley are: curly parsley *Petroselinum crispum* (Mill.) Fuss., sweeter and softer, and flat-leaf or Italian parsley P. crispun var. neapolitanum Danert., which has a strong, persistent and slightly bitter taste. Parsley is often confused both with coriander *Coriandrum sativum* L. and with chervil, *Anthriscus caucalis M. Bieb. = Cerifolium anthriscus (*L.) Schinz & Then., despite their taste being totally different.

Eaten raw, its leaves are rich in vitamins A, B1, B2, C and D. This condiment provides large amounts of iron and calcium. Parsley is essentially used for culinary purposes nowadays. The leaves and the root have traditionally been utilised for their diuretic properties and are a popular choice in cases of anaemia, lack of appetite, flatulence or amenorrhea, among others. Its chewed leaves are used to fight halitosis.

have natural, delicate chips.

{especies}.

Frying some sprigs of parsley in plenty of oil will allow us to crispy and





PARSLEY

The deep mark that this herbaceous plant has left on our culture goes beyond gastronomy, becoming visible in our language. We colloquially speak in Spanish about "emperifollarse [to preen oneself]" or "emperejilarse [to spruce oneself up]" — where the Spanish words for chervil [perifollo] and parsley [perejil] are present- to describe people who have dressed up more than they should.

The Spanish "No le falta un perejil [He does not (even) lack (a) parsley]" is utilised to refer to someone who does not lack a single detail. We say "Eres un perejil [You are (a/like) parsley]," meaning to have the gift of ubiquity, relating it to the ease with which this plant can appear in the most diverse places. Likewise, the expression "Ser el perejil de todas las salsas [To be the parsley of every sauce]" describes someone who likes to appear (and show off) everywhere.

Eating parsley was not licit in former times, because it was seen as an herb dedicated to the deceased. This link comes from Greek mythology and has to do with the death of the young Opheltes -son of the king of Nemea – whose wet nurse Hypsipyla laid him on a field of parsley for a moment. When she returned, the child was dead, with a huge snake that had inoculated him with its poison coiled up around his body. The Nemean Olympic Games were created in honour of the kid; they took place every two years, the judged wore dark-coloured clothes as a sign of mourning, and the winners were awarded with crowns of parsley.

culinary {**herbs**}.

Spices and culinary herbs

Spices are highly concentrated aromatic vegetable products coming from leaves, barks, roots, flowers, fruits or seeds and used as part of the human diet for millennia to enhance the taste of food and to help preserve it.

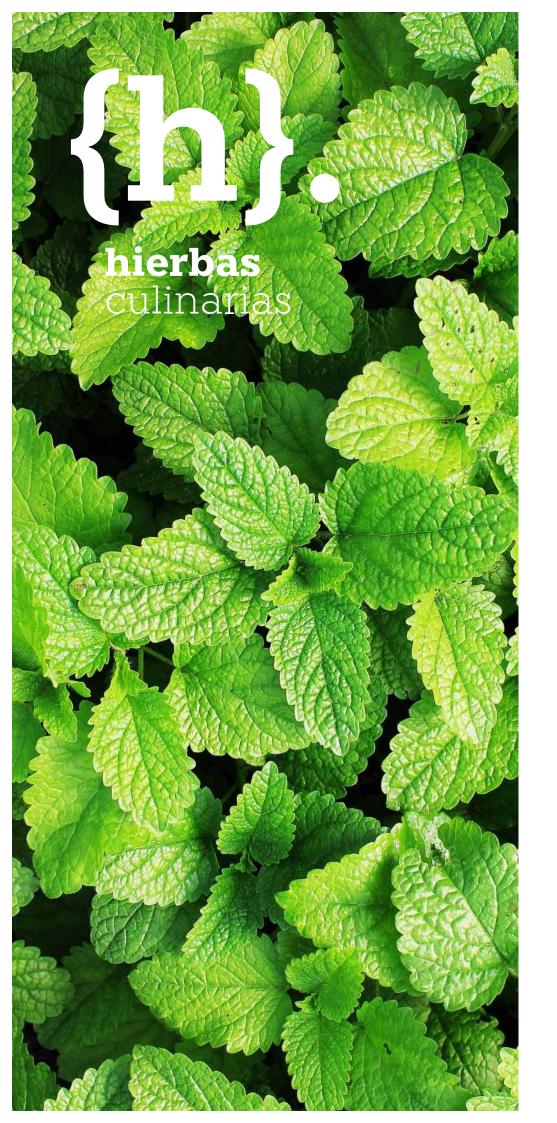
In the past, it was important to mask the taste of foodstuffs which were very valuable and difficult to preserve; spices and culinary herbs made them more palatable and digestible. Furthermore, many of the culinary plants were used for medicinal purposes too. An example can be found in clove: a powerful anaesthetic used in dentistry is extracted from its essential oil.

Spices were worth more than gold and were the reason for wars and long journeys or voyages to control their trade. The Arabs, the Venetians, the Spaniards, the Portuguese, the Dutch, the French and the English... they all fought for a monopoly which came to an end with the cultivation and the lowering of prices which placed spices within everyone's reach.

The oldest spices came from the Moluccan Islands in Indonesia (nutmeg, cinnamon, clove and pepper), but the desire for discovery of Columbus and the Spanish caravels laid other American spices on the table such as vanilla, paprika and hot chili, Jamaican pepper, annatto and many more aromatic herbs, without forgetting that saffron had already been a first-rate Spanish product since the Middle Ages.

In any case, peasants and humble inhabitants always had aromatic herbs close at hand: rosemary, thyme, savory, bay leaf, mint, sage, oregano, hyssop, fennel, pine nuts and a long list of plants which made it possible for Mediterranean tradition to create its original culinary imprint.





The Lamiaceae family:

SAVORY (Satureja montana L.). Mountain savory is the most common, but orchard savory (S. hortensis) and wild southern savory (S. obovata) also have a strong taste and are highly appreciated.

MINT (*Mentha spicata L.*). The one with soft, curly and round leaves is the sweetest and the most suitable for cooking, the others are better for infusions.

PEPPERMINT (Mentha x piperita L.). A cross of water mint (M. aquatica) and mint (M. spicata) known since the Middle Ages.

SAGE (Salvia officinalis L.). Sage has long been valued both for its medicinal properties and as a condiment (fresh or dry leaves). The endemic Sage from Mariola (S. blancoana subsp. mariolensis) is much more aromatic.

HYSSOP (*Hissopus officinalis L.*). *A small bush with herbaceous stems and a delicate aroma when fresh.*

BASIL (Ocimum basilicum L.). The Arabic word al-abaq is the etymon that gave rise to the Spanish words alhábega and albahaca —both of which translate into English as "basil"— (by deformation). It is an herbaceous plant with edible leaves and lemon, peppermint and clove aromas.

PEBRELLA (Thymus piperella L.). A bush with rounded leaves, endemic in the Eastern regions of the Iberian Peninsula with an aroma between thyme and oregano. Appreciated in Manchego-style gazpachos and olive seasonings, raïm de pastor, fenol marí, etc.

Apiaceae Family:

CORIANDER (Coriandrum sativum L.). Already known by the Egyptians. It was the most important spice in al-Andalus, both as a fresh herb and for the dry fruits.

FENNEL (Foeniculum vulgare Mill.). A fine herb with an aniseed smell and a sweet taste with bitter touches very frequently used in Roman cuisine. Its fruits serve to season cold meats and are used in the liquor industry.

CELERY (Apium graveolens L.). An herbaceous plant with a characteristic aroma and taste that is used in soups (whole leaves), salads (petiole) and cheeses (the fruits).



culinary herbs



{savory}. (*Satureja montana* L.) A universal seasoning for black olives

{sage}.

(Salvia officinalis L.) It is as good a medicine as a cooking herb



{mint}. (Mentha spicata L.)

Snails and vegetable stews are unbeatable with it



{hyssop}. (Hissopus officinalis L.) Among culinary herbs, it is one of the finest



{celery}. (Apium graveolens L.) It sometimes frees us from internal meteors



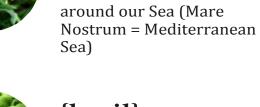
{coriander}.

(Coriandrum sativum L.) Fresh or dry, it reminisces of Moorish stoves



{pebrella}.

(*Thymus piperella* L.) The queen of kitchens across the lands of the Spanish Eastern coast



{basil}.

{fennel}.

(Ocimum basilicum L.) From India it was extracted, and in our orchard planted

(*Foeniculum vulgare* Mill.) An old aroma shows all





Fresh, green and monastic, and a vital orchard aroma



The Greeks highly appreciated a honey made with the flowers of *"herpellon," a variety of thyme which* grew in the Athenian mountains. Corpus Hipocraticum recommended to consume honey to reach longevity.

{curiosities}.



The history of spices is linked to the history of seafaring and the conquest of territories. Columbus, Vasco De Gama and Magellan, the three standard-bearers in the age of discoveries, were spice seekers before becoming discoverers. Spices were extremely valuable, because they were scarce and difficult to obtain.

Spices were one of the most luxurious products in the Middle Ages. The most common among all of them was black pepper, the most exclusive being saffron. Some spices arrived from Asia and Africa and were extremely expensive, such as cinnamon, cassia, cumin, ginger and cloves.



One of the characteristics of salt is its versatility. Some of its properties are curious and others have fallen into disuse. It has been utilised in the chemical industry, the *manufacture of plastics, water* disinfection and the production of *caustic soda, the manufacture of* cellulose pulp, the textile industry, dyes and pigments, as a corrector of soils, inorganic fertilisers, pesticides and herbicides, in vulcanised rubbers, leather tanning, solvents, detergents, in metallurgy, etc. It has also proved useful: to starch organdie, to clean furniture, to remove rust, to get rid of stains in clothes, to keep the freshness of newly cut flowers, to make soaps, to prevent the formation of ice in roads and to help in the extinction of fires caused by accumulated grease. It is likewise used in silver extraction, in ceramic glazes, in tanning, in refrigerator mixtures, in the preservation of wood destined to shipbuilding...





"Vía Salaria" was an old Roman road *built to transport the salt from the* saltworks in Ostia (an ancient city and commercial port at the mouth of the *River Tiber) to the metropolis. The* soldiers who took care of this route received a part of their pay in salt. This part was known as "salarium Argentum," from which our present-day word "salary" comes.







{to know more}.

European Union monographs and list entries

https://www.ema.europa.eu/en/human-regulatory/herbalpro- ducts/european-union-monographs-list-entries

https://www.ema.europa.eu/en/medicines/field_ema_web_categ o-

ries%253Aname_field/Herbal/field_ema_herb_outcome/european-u nion-herbal-monograph-254

WHO Monographs on Selected Medicinal Plants http://apps.who.int/medicinedocs/es/d/Js2200e/

European Scientific Cooperative on Phytotherapy (ESCOP) http://escop.com



