

Grão Vizir

The Alchemy of Herbs, Spices and Masalas

Marcelo Nastari



INTRODUCTION

A history of aromas, flavors, colors and textures

Herbs and spices are the ingredients that come to mind when it comes to spices. A bit of one, a pinch of another or the combination of both add aromas, flavors, colors and textures to the most varied dishes. In the art of gastronomy –always renewing and reinventing itself– to learn how to measure the seasoning and experiment new combinations, it is necessary to know a little about the history of the ingredients, to understand

their origins and, especially, how they are used in different cultures. It is essential to know the right moment to introduce something new, to identify the potential of certain elements and to know the uses of spices in the various cuisines.

As we soon realize, the word “spice” has a wide variety of meanings. It is like a great genus that includes more particular species: “spices” and “herbs”. Another feature to note about seasonings in general is that both herbs and spices are not quantitatively the predominant ingredient in a dish or drink. However, a small measure added to the food changes it markedly. The spice is the delicate and precise touch that can make the difference between an unpleasant dish and an unforgettable gastronomic experience.

One of the great spice historians, Jean Marie Pelt, points out that the richness of the universe of spices is the cultural diversity it preserves. He says, drawing attention to the living, unique and regional character of spices, resistant to standardization and pasteurization that the “world of spices is the exact antithesis of extreme standardization and simplification, symbolized by Coca-Cola

and McDonald's. On the one hand, a unique style of culture, the North American, spread throughout the planet. On the other, the intense and colorful provincial life that springs from regional identities."

Spices are an important chapter in contemporary gastronomy, but their properties, uses and secrets are secular. The explosion of sensations that often a derisory portion of a vegetable provides is fascinating and has intrigued food lovers and scholars for a long time.

Besides gastronomy, the importance of spices is remarkable in several fields: medicine, health, well-being, religion, economy and even geopolitics. Some passages in history give the dimension of their importance.

More than five millennia ago, in ancient Persian, Greek and Roman cultures, surviving the Middle Ages and boosting the Great Navigations of the 16th-Century, herbs and spices play one of the most relevant roles in the history of food, of humanity itself. In the Christian world, the Old Testament brings accounts of the relation of the mythical with the terrain.

In medicine, an important historical document, written about 3,500 years ago, was acquired in the mid-

19th century by the German scholar Georg Ebers. Since then called the Ebers Papyrus, it is considered one of the earliest medical treatises and the most important of ancient Egyptian medicine. In it, spices use goes beyond cooking and serves as the basis for the preparation of a large number of over seven hundred medicinal formulas.

But it is not only documents that prove the use and the relevance of the vegetable condiments. In the culture of the Ancient Egypt, around 1700 BC, the spices were already present. In an excavation at an archaeological site located in the current territory of Syria (region of ancient Mesopotamia) fragments of Indian cloves were found in what would have been the kitchen of a simple house. The carnations, millennia later, are still widely used in the main culinary that inherited this Arabian culture, and enchant those who relish the characteristic spice of these dried floral buds.

In this book the reader will find information on herbs, spices and masalas (spice blends widely used in kitchens around the world). It is the result of a personal trajectory started in 2001, when I began to be interested in the universe of Indian cuisine

and spices in general. It is also the systematization of part of the material collected over the years and the daily experience with the theme, mainly from 2010.

It was precisely that year that I founded Grão-Vizir Especiarias (Spices Grand Vizier), a brand of spices, masalas and antipasti developed according to the traditions of each gastronomic culture. India, China, Italy, Iberian peninsula, Arab world, Latin America, Brazil: spices guide us around the world of aromas, flavors, colors and textures. The culinary incursions that make the art of cooking and tasting a challenging and complex, lively and fascinating experience.

HERBS AND SPICES

Solving the differences

In the universe of spices knowing how to distinguish and identify the characteristics of each ingredient –especially the part of the plant that will be used in the preparation of a dish or even the process to which it was submitted before becoming one of the items of a recipe– is imperative to extract all the potential that a herb, a spice or the mixture of them can provide.

Herbs

The word “herb” comes from the Latin *herba*. On its own, it can take up to almost a dozen meanings and, if accompanied by a complement, it concerns more than three hundred different species of plants.

However, in gastronomy, the term is used as synonymous for “aromatic herb.” From the morphological point of view, it is characterized as the tender, non-woody, and non-perennial portion of a vegetable, whose aromatic properties enable its culinary use. In short: it is the leaves and green stalks of a plant, which, used in small quantities in the preparation, perfume and inebriate the senses, especially the smell, the eyes and the palate.

Herbs can be used fresh or dried, and their aroma and aromatic characteristics undergo changes when subjected to some drying process.

Drying implies oxidation and other changes that can often result in large losses from a gastronomic point of view. In a few cases, however, they allow the awakening of new taste intensities.

Spices

“Spice” is a term of French origin. It comes from *épice*, a word that dates

back to the 14th-century and may also mean “species”. Originally, spices were defined as “types or species of commodities,” thus including not only food but also distinct products from the Far East.

Some argue that such products, to qualify as spices, must originate in Southeast Asia, part of the New World, or Africa. This was the definition adopted for centuries inherited from the context of the Great Navigations. For those who understand it this way, when a product of this type originates from a temperate European zone, for example, it would not fit into the category of spices. In France, for example, only products originating in the East were classified as spices. Thus, the Brown Mustard, whose origin and production were European, was named *aromate* product but if they came from the East, they would be called spices.

However, today the most accepted definition does not impose this geographical restriction regarding the origin of the spice. In a broader spectrum, the term refers to various sections, parts of plants, such as: seeds, bark, fruits, roots, sap. In addition, another feature that defines the spice condition of a given vegetable

is in its drying, which may be natural or induced by controlled processes.

TIMES AND QUANTITIES OF ESSENCES

The chemistry of the right measure

As a general rule, the addition of ground spices and herbs to hot dishes should only occur from the middle to the end of the preparation or even seconds before going to the table; the whole spices, however, should be added preferably at the beginning. These are cooking procedures that are known and practiced by instinct or according to the tradition of each culture. The concepts of physico-chemistry, however, help understand these rules and the most effective methods to safeguard the aromas and flavors.

Two primordial concepts are decisive in understanding how spices act on dishes: essential oils and chemical reactions. Herbs and spices owe their aromatic and gustatory power to their essential oils, that is, the chemical substances that make it up, or more specifically, to volatile and fragile organic molecules. These substances are composed of small

and light parts of organic matter which, although called “essential oil”, are not necessarily oils (fats), nor are they “essential” in the sense of being indispensable. The term is used as a synonym for aromatic, that is, what has unique, singular, olfactory and even gustatory aspect.

The release, in food, of the perfume and taste of essential oils is the direct result of chemical reactions. In this process, an atomic or molecular structure is modified and new chemical arrangements are created. These reactions can be triggered by a number of factors. In the case of herbs and spices, they occur by heating, exposure to light and chemical interactions (with air, water or other ingredients). This is how a certain spice is capable of promoting alteration in the organoleptic and sensory characteristics of foods.

Aroma and Flavor

In gastronomy, the chemistry of reactions is translated into odors, flavors and textures. Smell is the sense that first is stimulated and the pleasure of food begins with the unmistakable aroma that condiments add to the dishes. As Hervé This says, “the game of aromas and odors is not the

easiest to carry out, but it is what one perceives first, along with colors, and perhaps with more intensity. The guests are not yet at the table, and their own perfumes have already mingled with the chimney, the candles that consume their warm and hesitant light. The dining room door opens, the dish arrives, is uncovered and the perfumes gush. How to make this great moment work?”.

This question about the mysteries of how a dish gets its ideal spot has no ready answer, obviously. But one of the secrets of good cooking is to know how to measure the quantities and how to induce the right reactions at the right moment so that the ingredients reach their optimum.

The chemical reactions from one or more of the above factors are responsible for the “loss” of the essential oils. As everyone who enjoys cooking and eating knows, this loss can be positive and expected, making it a more flavorful, fragrant ingredient, even acting on the consistency of food, or, on the contrary, a determining factor for a dish not to reach its apex.

Texture and Color

In addition to aroma and flavor, texture is also another feature that can

be altered by certain spices. When boiling two teaspoons ground cinnamon in 200 ml water for five minutes, it is noted that the infusion becomes thick, similar to a gum. Something similar occurs, albeit to a lesser extent, if the same portion of cinnamon is replaced with ginger. Another example of a change in texture occurs with the use of poppy. The small granules of this spice go very well as cake toppings, such as those of Sicilian or orange lemon, giving the dough a slight crunchiness touch.

When preparing special dishes, the colors are also important to fill the eyes of the guests. The color of a dish can come in addition to the natural tones of the main ingredients, from one or more spices. In the *Paella*, this happens to the saffron, in the *risotto* with turmeric, in a mix of vegetables with *Indian Panch Phoron*, for example, among other possibilities. Spices stir the most immediate senses –smell and look– before satisfying, when taking the first bite, touch and taste.

MASALAS OR SPICES BLENDS

In many cultures, it has been noted that, as in the case of traditional herbal medicines, a certain portion of herbs, seeds, tree barks, or flower buds were soon introduced into certain preparations. The combination of ingredients was motivated by the most varied reasons. In addition to the medicines, which also influenced the way of cooking, the emergence of the mixtures of spices was given according to geographical location, availability and access to herbs and spices, religious rites, attribution of aphrodisiac functions, need for conservation, restrictions on access to certain foods, substitutions of one ingredient for another etc. Over the years, these combinations have become characteristics of a place, a culture, a region.

It is in India, country located in South-East Asia, the largest spice barn in the world, that the term “masala” arises. In Portuguese, the term is usually translated as a spice blend or condiments; barely comparing, it resembles the use that is made of the term “spice” (*tempero*) in Brazil. The Hindu term assumes different meanings depending on the case,

and may refer to a dry blend (like Garam Masala), a paste (Green Masala), a drink (Tchai Masala) or even a seasoned dish (Murgh Masala). In all these cases, the term masala means the combination of two or more spices or herbs. From the innumerable combinations of spices and herbs the masalas were born.

The diffusion of the masalas –and especially of the dry blends– is related to the Great Navigations, to Western domination attempts over India (such as those of England and Portugal) and to the exchange of cultures and trade by sea and land. The profusion of spices from Indian culture, the fascination with local cuisine, and the spread of trade throughout the world in the Modern Era led vessels to include spice blends among the products.

In this process of diffusion, another term that gained prominence was Curry (in Portugal called Caril). Mistakenly, this term, also used as a synonym for masala, was for a long time –and still is today– seen as something unique and uniform and even as the ingredient that sums up Indian cuisine. Usually it is a blend of turmeric, black pepper, cumin and ginger, Curry is one of the many

types of masala and the variety of recipes is immense; its supposed unanimity is more a creation of the West than properly a necessary and constant presence in Indian dishes.

Anyone who thinks of Curry as a single tune from north to south ignores Kashmir Masala from Kashmir and Panch Phoron Rajasthani from Rajasthan and also ignores that each family has its own Garam Masala and its secret to the preparation of the Tchai. Variety is the tonic of Indian cuisine and its masalas are nothing more than the reflection of diversity. The range of foods and spices available in each region, the religious influences or even the philosophy of life adopted in each place are some of the determining factors for the use and the combination of spices.

Extending the borders of India, the idea of masala spreads through various corners of the planet. In the Arab world, because of the location and historical importance of the spice trade, there is a large number of already established blends: Za'atar, La Kama, Harissa, Ras el Ranout and Berbere are some examples.

In the Mediterranean region it is more frequent the use and combination of herbs such as the Herbes

Fines, the Herbes de Provence and the Garni Bouquet in France, or even the many versions of Italian Pesto made from herbs, olive oils and nuts. The French Quatre Épices and the English Apple Pie Spice are typical blends of European spices.

Cajun Spice Mix sets the tone for Southern Creole cuisine of the United States. In Chile, the Mapuche Indigenous people created the spicy Merken. In the case of Chimichurri, Uruguay and Argentina fight for their parenthood, and this sauce for meats is also very common in southern Brazil. Besides it, the Tempero Baiano, always present in Brazil's popular street fairs, is an example of a Brazilian dry masala.

Using Masalas

Traditionally, masalas are made together with the dish to be tasted, so that the taste and aroma are appreciated at their apex. The reason is that, considering the volatility of essential oils, grinding, heating, exposure to light and chemical interactions (with air, water or other ingredients) are decisive for altering the organoleptic properties like color, brightness, odor, taste and texture. The fresher the masala, the more intense and more

powerful are its performance and interaction with food.

The preparation of a masala requires a few steps. It starts with the cleaning of spices and herbs, discarding any inert particles. Then the roasting must respect the order of addition of ingredients. Finally, after the natural cooling, there is the grinding process. Greater or lesser granulation defines the boundary between success and failure of a perfect masala: excessive spraying leads to a faster loss of aroma and taste; increased granulation can put your teeth at risk.

It is not always possible to carry out the process of preparing a masala while cooking. The difficulties to get some spices often make their cooking unfeasible or tiring along with the elaboration of a dish. To overcome this difficulty, there are two options: plan the elaboration of the spice mixture, anticipating some steps, or look for the growing supply of good ready-made masalas available in the market. Using ready-made spices is a practicality that no cook can give up, but making your own mixtures can be a stimulating and pleasurable way to guarantee the success of a personal and remarkable gastronomic endeavor.

Masalas and health

In the creation of new flavors and aromas, intuition and tradition, especially the oral tradition, usually overlap with technical or predetermined parameters. Not for nothing, it is common for recipes to bring generic expressions about the amount of seasoning to be added to a dish: “abitofcinnamon”; “adashofnutmeg”; “a spoon of clove powder”, “pepper as much as enough” and so on.

However, you can create masalas using studies and guidelines based on an already consolidated system or theory. Within the medical sphere, in its various practices (allopathic, acupuncturist, homeopathic, ayurvedic, anthroposophical), spices and their constituent elements are the basis of many medicines and treatments.

However, it is in Ayurveda, the traditional Indian medicine, that herbs and spices play a central role in the quality of life and health of people. And food (with herbs and spices) is one of the pillars that underpin Ayurvedic theory. To understand the importance of spices and herbs –and how to combine seasoning using this Indian system created over 5,000 years ago– a brief notion of its guiding principles is needed.

Ayurveda understands that every matter is composed of forces of nature. There are five forces or constituent elements of the whole universe: Water, Air, Ether (or Space), Fire and Earth.

For humans, it is no different. In their composition, all these elements are present, but each individual, when conceived, has the predominance of two or more of these forces, which gives them their own biological profile with unique physical and psychological characteristics.

The combination of two predominant forces of nature in a matter is called Dosha, they are: Vata (Air and Ether), Pitta (Fire and Water) and Kapha (Earth and Water).

A person can have a single Dosha, the combination of two Dosha or be tri Dosha (when all three types fall into one person). Even if a person, through questionnaires, can identify their classification, it is recommended, for a greater precision, that this analysis is done by an Ayurvedic specialist.

As soon as conception occurs, the Dosha and their respective forces of nature are in equilibrium. However, with birth, the passage of time, and interactions with the outside world, initial harmony is lost, causing

the onset and development of physical and mental illnesses.

Within this system, food plays a central role in reestablishing balance. One should have a diet that increases or decreases the presence of one or another Dosha in order to achieve balance. Thus, Ayurveda, from the flavor, also classifies the foods according to the forces that characterize them: Sweet (Earth and Water), Acid (Earth and Fire), Spicy (Fire and Air), Bitter (Air and Ether), Salty (Water and Fire), Astringent (Air and Earth).

DRY SPICES

How to assess, buy and process quality

When buying a spice or herb, choose suppliers or brands that cherish the quality of the product. Whenever possible, buy the whole spice, that is, not ground. In addition to the increased durability, in the process of milling, inert materials such as other parts of the plant (branches and leaves), soil, other herbs or additives can be added to lower the cost of the final product.

An example of the use of ingredients foreign to spices is the practice,

still very common, of commercializing spices with some starch from potatoes, cassava, etc. That is, in order to increase the yield of the final product potato and cassava starch, for example, are added to the spices.

Turmeric, Cumin, Cinnamon, Ginger, Nutmeg, Black and White Pepper, often daily used, are examples of products subject to this practice, which harm the consumer and can cause losses in the preparation of that special dish. In addition, it interferes in the quality of the spices flavor and aroma, stealing the best they can give. When in contact with moist medium, the starch tends, for example, to “thicken the broth”, as it is popularly said. Then, a rice made with turmeric with starch can acquire a more pasty texture, like a “smashed potato”.

The place of commercialization and conditioning of the spices should also be taken into account, as will be seen below. If storage at home requires care, the same applies to the place of purchase.

Roasting/drying

The process of roasting and drying is important for extracting or “awakening” the essential oils and, consequently, the aroma of spices. The process

also contributes to “killing” some biological contaminant agents and helps, after cooling, the grinding process.

Storage/lifespan

Ground spices and dried herbs perish more easily when exposed to moisture, heat, light and chemical contaminants. The interaction with the medium in which the spices are stored is also something to be evaluated when storing. Therefore, in order to guarantee a longer shelf life, it is recommended to store it in sterile packaging, preferably dark glass or light-shielded, hermetically sealed, in a ventilated place.

Milling

There are several milling processes of spices and herbs. Compression, impact, friction (or abrasion) and cutting (or tearing) are the forces that, together or alone, are used for grinding. Existing models vary in relation to the applied energy: manual and electric, and in some cases can also use hydraulic and wind energy. In residential use, manual grinders (mortar or disc) and electric grinders (disc or blade) predominate.

For the grinding-cleaning, more specifically those provided with discs,

it is suggested that it is only made with the milling raw rice, and then using brushes not to loose the bristles.

The use of water is not recommended for wood and metal grinders. Glass, porcelain and stone can be washed, taking care, however, that there are no chemical contaminants, such as soap or other product used during cleaning.

Mortar

Also called a grade, kneader of spices or pestle, the mortar is the crudest grinding utensil and also the most present in the various cuisines of the world. It consists of two parts: a container and a stick. This one receives the name of hand mortar, hand pestle or even pistil. The grinding of the equipment works by the friction of the spices, usually favored by the rough surfaces of the bottom of the container and the tip of the stick. In general, the materials of the parts coincide.

In Ancient Rome, a kind of bowl (or deep dish) made of ceramics was called the mortarium (the Latin word that originated the word mortar). With a robust edge and a beak-shaped crevice, it had grooves or sediments (of sand or gravel) aggre-

gated to the concave bottom, which made possible to beat and mix food more efficiently.

In pre-hispanic civilizations (especially Maias and Aztecs) the *molcajete* was made of ceramic or basalt (porous volcanic rock), and its shape and composition resembled another model, from Thailand, used to prepare curry.

In India, the *oralu kallu* is made of stone or pottery. It may have a slightly different shape from the other mortars, but its function and manner of use are the same.

Already in the Far East, it is believed that around the eleventh or twelfth century, there was the migration of *suribachi* from south China to Japan. Today, identified with Japanese cuisine, it was initially used in the medical area and only later it would have utility in the kitchen. Its name comes from Mount Suribachi (166m altitude), highest elevation of small (21km²) and flat volcanic island of Iwo Jima (Iwo To). Made of ceramic, the utensil usually contains linear and parallel grooves, in the inner part; on the outside, it is smooth and glazed. The baton is made of wood and is named *surikoji*. The most recurrent use is for the preparation of

pastes (like the miso) and the milling of the sesame.

From Africa comes the pestle, with its many variations. In its larger dimensions it is used for the processing of foods such as cereals (corn, sorghum and rice), nuts and roots (such as cassava). Generally, the containers of the pestle are made from a hollowed tree trunk, and come accompanied by the so-called hand pestle, the wooden stick used to “knead” the spice. In Brazil, in furthest rural areas from urban centers, the use of pestle is frequent and in smaller sizes, the wooden mortar and other similar models, made of stone or porcelain, are commonly found in home kitchens.

About the author

Marcelo de Moraes Nastari was born in 1977 in São Paulo, Brazil. He graduated in Law from PUC-SP in 2001, having worked in the areas of Children and Adolescents and Human Rights. In 2006, in addition to working in the legal area, he began to produce and market his masalas. In 2010, he dedicated exclusively to Grão-Vizir Especiarias, company and brand that he created and runs since then.

This English version is part of the book *Grão-Vizir: a alquimia das ervas, especiarias e masalas*, by Marcelo Nastari
TRANSLATION MARINILZES MORADILLO MELLO
PROOFREADING JULIA MELLO NEIVA