The landscapes of paella

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Although people have been eating rice in the Iberian Peninsula since before the arrival of the Arabs in the 8th century, paella itself did not appear in recipe collections until the 19th century. Originally from Albufera de Valencia and nearby regions, paella began as a meal for country peasants – fast to prepare in the open air and open to all sorts of ingredients – but it soon turned into a more festive dish and the recipe improved. With the arrival of tourism between 1950 and 1970, paella became internationally famous as a symbol of Spain. Aside from these general facts, however, paella has other interesting – and less well-known – qualities that make it a true culinary kaleidoscope.

The writer Josep Pla said, “A country’s cuisine is its landscape in a cooking pot.” This shrewd observation is certainly true for cooking in general, but it is especially so for paella. To begin with, the very name “paella” comes from the name of the pan in which it is cooked – paella – which in turn comes from the Latin patella, meaning “plate”. The paella pan is quite flat, similar to a plate. And though it may not seem so at first, the link between the pan and its landscape is a close one. Made of a very thin sheet of steel, the paella pan has very little thermal inertia; in other words, it heats up and cools down very quickly, unlike the traditional earthenware pots that would take a long time to heat up but then keep their heat for a long time after being removed from the fire. The result is that the paella pan sautéed the food while the earthenware pot cooked it slowly. This speed saves energy, making the paella pan particularly appropriate for areas where fuel is scarce, like the area around Albufera de Valencia, where there was no forest and firewood was traditionally obtained by pruning the orange trees. But besides having little thermal inertia, the thin sheet of steel also guaranteed that the paella pan would be light and resistant, two very desirable qualities for a pan that was going to be carried and used in the country. So we can see that the paella pan is the ideal solution, both energy-efficient and serviceable, designed to be adaptable to its surroundings – to its landscape.

But the landscapes of paella don’t end here; this is just the beginning. Let’s look at the ingredients of paella. First of all, we have olive oil, the essence of Mediterranean cuisine for thousands of years. Olive oil comes from the olive tree – a long-living tree with twisted, Baroque-like bark, grayish-green foliage, and an artificially small size – which is studded around large areas of the Iberian peninsula with geometric regularity. Without a doubt, it is one of Spain’s most familiar landscapes.

Next we have the meat – usually rabbit, duck, chicken, pork or veal – all of which in one way or another are linked to specific landscapes. The rabbit, for example, is a mammal that is native to the Iberian peninsula and nearby regions. It lives in all sorts of habitats – especially in the Mediterranean hills and woods and in the meadows with
their holm and cork oaks, their pastures and their scrubland. For centuries, the rabbit has successfully colonized a great part of Europe and has been introduced for hunting in many places in the world, including Australia, where it has turned into a plague of Biblical proportions. According to some interpretations, the name España, which is derived from Hispania, the term the Romans used to refer to the Iberian peninsula, has its roots in the Phoenician i-spn-ya, meaning “land with many rabbits”. So we can see that the rabbit is definitely tied to the paella landscape. The duck – or rather, the ducks, since this is a large group of aquatic birds – are certainly the most typical inhabitants of wetlands like those found in Albufera de Valencia, the Ebro River delta and the marshlands of the Guadalquivir River, where large populations gather in the lagoons to rest and eat. Their dependence on water often means that they must share these areas with the rice in the fields, and they finally end up sharing the dinner plate with the rice as well. The chicken, the pig and the cow are now farm animals, but they have all descended from wild ancestors. The chicken has evolved from a type of hen from the jungles of Southeast Asia – domesticated in China between 4000 and 6000 BC and brought to Western Europe by the Phoenicians around 1000 BC. In fact, this animal can still be found in the wild in southern China, Malaysia, the Philippines and Indonesia – all remote, unexplored landscapes. The pig comes from the wild boar, which is found in all sorts of landscapes throughout the temperate regions of Eurasia, with the exception of large mountain ranges and extreme deserts. The boar was first domesticated in the Near East around 11,000 BC, but today’s pig is descended from boars that were domesticated in Europe at a later date. The cow – or in fact, the bull – is descended from a wild species of bovid that lived in the wet woodlands of Eurasia. It was domesticated in the Near East in the early Neolithic period, and the last sighting of the wild species was in Poland in 1627. Nowadays, however, the chicken, the pig and the cow – and even the rabbit and the duck – have been domesticated and so have lost all connection with their original landscapes. In the most idyllic of cases, they might be connected to the rural landscape – a mosaic of crops in fields and traditional farms – but in general they have closer links to industrial farms, where thousands of animals are produced each year. A lot of meat for such a meager landscape.

The third ingredient in the paella landscape is the fish and seafood. The idea of mixing these ingredients with meat has always been controversial. Paella purists insist that paella can be campestre (with meat) or marinera (with fish) but never both at the same time. Although it is true that the original paella was made in the rural countryside with meat and that fishermen later created their own version with fish and seafood, this separation was based more on the availability of ingredients than on any secessionist feelings. Today, on the other hand, we have both meat and seafood easily available,
and it seems that the refusal to mix them goes against the eclectic philosophy of paella. The cuttlefish and the squid, normally used in paella, are mollusks – making them relatives of the slug and the snail (which can also sometimes be found in paella) but from another class of mollusks, the cephalopods, or “head-feet”. The cuttlefish and the squid are skillful predators and fast swimmers; they have two retractable tentacles that they use to catch their prey and a mouth called “parrot beak” that can pierce the hard shells of the crustaceans they feed on. The cuttlefish also has an internal shell that gives it buoyancy, called a cuttlebone, and a beige-colored ink sac that releases the liquid ink popularly known as salsa (“sauce”). Because of its intense flavor, this ink is often added to the tomato-based sauce called sofrito that forms the basis for many Spanish dishes, including paella. The cuttlefish lives in shallow waters and often hunts and reproduces among posidonia seagrass that is found along most of the Mediterranean coast at depths of 0-30 meters – near in distance but far from our knowledge. The squid is less tied to a specific sea depth; it is common in coastal waters but can also be found in the open sea at great depths. Besides the cuttlefish and the squid, other types of seafood are often included in paella – perhaps due more to their attractive appearance and character than to the flavor they give the rice. Crustaceans like crayfish, crabs and mantis shrimp live in muddy and sandy bottoms in both shallow and deep waters. Crustaceans are primarily marine arthropods whose closest biological equivalents on land are the insects. From a biological point of view, the campestre paella could well have included butterflies, beetles, grasshoppers and bees – in fact, the larvae of the bee taste like seafood. Bivalves are also used in paella, contributing other landscapes to the kaleidoscope. A bivalve’s landscape can be deduced from its appearance. Some live in sandy bottoms, while others live among the rocks. The ones with a strong digging foot (a sort of pink tongue that protrudes from the valves) bury themselves in sediment; the stronger the foot, the deeper they burrow. The ones without this digging foot attach to the surface of rocks. The bivalves most commonly found in paella are the carpetshell clam, the coquina clam and the baby clam, which live in the sandy bottoms, and the mussel, which lives on the rocks. Most bivalves now come from aquaculture farms in areas like the estuaries of the Rías Gallegas, the Ebro River delta, Cadiz, Huelva, Italy and Portugal. Their landscape consists of endless mussel farms, underwater cages or especially prepared natural sandy bottoms. Fish are a fundamental part of the broth used in paella. Although some cooks use different types of broth, and some even add just plain water, there is no doubt that fish broth gives the best flavor to the rice. The recipe for the fish broth is just as eclectic as the rest of the paella: fish heads and tails or whole small fish, boiled with a few vegetables.
And that brings us to the fourth group of ingredients: the vegetables. The most common ones are members of the Fabaceae family (green beans, legumes, peas and fava beans), the Solanaceae family (tomatoes, red and green peppers), the Amaryllidaceae family (garlic and onions – though whether or not to include onions is another controversial issue), and the Asteraceae family (artichokes). These vegetables have different taxonomic and geographic roots, but for centuries they have been sharing the common landscape of the huerta (“vegetable or market garden”), hence their Spanish name hortalizas.

And, of course, there is the rice – the main ingredient of the paella. Rice is a cereal that originated in Asia and that now feeds almost half the world's population. There are thousands of different varieties, but in general, we can distinguish three: long-grain rice, like basmati, typical of Indian cuisine; short-grain rice, like the Italian arborio, used in risotto; and round-grain rice, like bomba, popular in eastern Spain for some years now. Each variety has its own organoleptic and culinary characteristics. Long-grain rice is more aromatic than round-grain, but it absorbs less water and flavor, so experts recommend not using it in paella. In Andalusia, however, paella is often made with long-grain rice, and the results are apparently very satisfactory. In any case, whatever the variety of rice used, paella is always made with white rice that has been polished to remove the bran and germ of the grain of rice. In whole-grain rice, the bran has not been removed, so it has a toasty color. It also has more fiber and is more flavorful and nutritious than white rice, but it takes three times as long to cook. Rice is grown in flooded fields, and ecologically, the rice field is an artificial wetland, with a rich community of algae, aquatic plants, invertebrates, fish, amphibians and birds. The rice field also acts as a biological filter, since it purifies the water. However, the water cycle in the rice field is just the opposite of the normal cycle: the rice field floods in summer – when there is more evaporation and less precipitation – and dries out in winter.

The final touches to the paella are the saffron, the rosemary and the salt. Saffron is a spice that comes from the dried stigma of the saffron crocus (Crocus sativus) – the female part designed to capture pollen. It is the most expensive spice in the world – five times more expensive than vanilla and almost 30 times more expensive than cardamom – due to the delicate processes involved in its cultivation, harvest and handling. In Spain, saffron has been cultivated since the middle of the 10th century, when it was probably introduced by the Arabs, and Spain is currently one of the major producers of saffron worldwide. In spring, the saffron crocus flowers turn the fields of the Castilla-La Mancha region into a vast violet carpet. Saffron gives paella its attractive yellow color, its characteristic slightly bitter flavor and its exotic aroma, though some cooks hold that its aroma may be difficult or even impossible to detect.
amid all the other rich aromas that mingle in the paella. Rosemary is an aromatic plant that is very common in the Mediterranean area. It is typically found in the maquis shrubland, an ecosystem with thick vegetation that provided hiding places for the anti-Franco guerrillas, who wound up taking the name Maquis for themselves. The rosemary aroma that is so highly valued in cooking is in fact a chemical defense against herbivores. Finally, like all food, paella requires salt – preferably sea salt. Sea salt is not only sodium chloride; it actually contains almost all the elements of the periodic table – elements which, in small doses, are indispensable for life. Sea salt is obtained by evaporating the water from the sea brine in a system of large divided sections that are often dyed pink by a specific type of bacteria present in the water. The salt works, with their pink-tinged water and their hills of blindingly white salt have been a truly Mediterranean landscape since antique times.

Dry fields, olive groves, meadows, wetlands, tropical jungles, temperate forests, traditional farms, underwater meadows of posidonia seagrass, coastal waters, oceans, shallow and deep sandy bottoms, mussel farms, market gardens, rice fields, maquis shrubland, violet-colored fields, and rose-tinted salt works – these are the landscapes contained in a few square centimeters of the culinary kaleidoscope that is paella. And like a real kaleidoscope, paella offers us a rare opportunity to contemplate (and taste) a great deal of variety in a very small space.