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Lifting the lid

Ronzani Editore

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Lifting the lid

The true tale of corks, caps, stoppers and more

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To what base uses we may return, Horatio. Why may not imagination trace the noble dust of Alexander till he find it stopping a bunghole?

William Shakespeare, *Hamlet*

Around the world

I am a traveller following in the footsteps of time, quite decided to tell the story of this object that is so useful and precious and yet practically ignored by the history books.

Mine will be a very long journey because in order to tell the story of the lid, I must go back to its origins. No more meandering through legends, but back to the time when, before writing made our memory eternal, man started his social adventure by settling the first villages and starting to develop increasingly more evolved tools, destined mainly for working in the fields and at home.

The ticket for my journey will not bear just one date and destination; it is an 'open' ticket because I will have many different destinations, and many people to meet along the way. I take with me my notebook and a suitcase, hoping that one will be big enough to hold a few souvenirs, lids obviously, the most significant, the most beautiful, the strangest and — why not — even the most normal, small lids that nobody notices but without which we could not preserve our favourite wine, a craft beer, French perfume that makes our head spin on a first encounter, or poison for the mother-in-law.

I am headed towards the regions in the east (south-eastern Anatolia, Syria, Israel, and Palestine), where the great economic and food revolution started during the Neolithic era,

6,000 years before Christ. At that time, the spreading of agriculture brought with it constant, strong demographic growth and rising numbers of permanent villages.

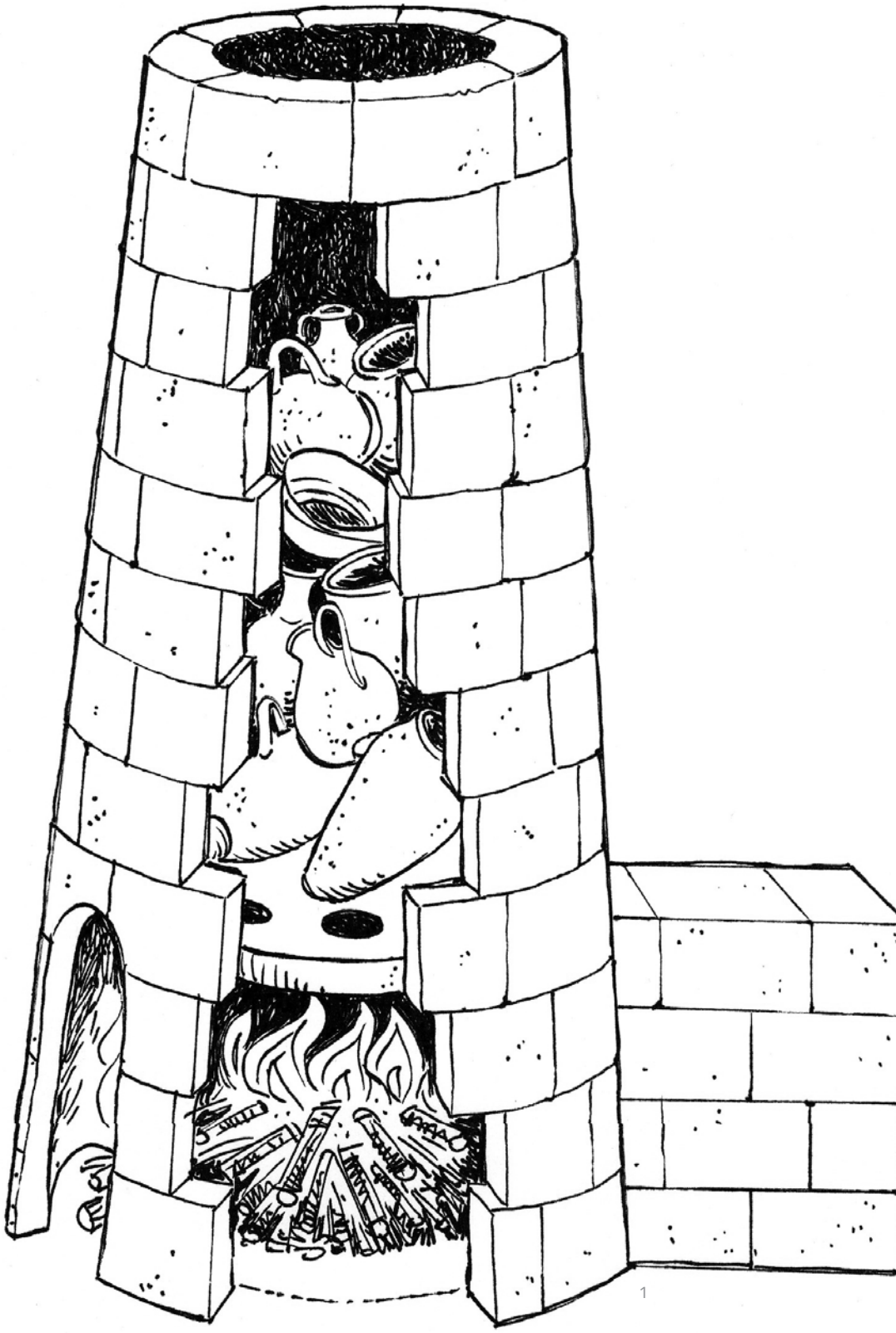
My first stop is in Haji Firuz, in Iran. This village has rectangular mud brick houses with flat roofs, inside which are a few benches for sitting on, simple pallets for sleeping, and cupboards for storing food. There are also little domestic fireplaces in some of the homes, but rudimental ovens can be found sticking out of the earth throughout the village, a sign that it is quite normal here to cook outside in company.

In one of these open-air kitchens I find them! The oldest lids in history; if others were made before them, no traces remain if not in the myth of Pandora. In this eight-thousand-year-old kitchen, I find six jars, each one with a capacity of about nine litres, containing a yellowish liquid, wine probably. Each jar is fitted with a clay lid.

My suitcase is suddenly too small. As a twenty-first century man, used to the singularity of things, to single-doses, to small light bottles 'to take with you on the go', I had not thought about a time when life was truly a community and the gesture of preserving was a tangible act for the survival of a group of people.

Clay was one of the first materials used for making pots and lids. It was easy to find in nature and simple to work and shape.

The production stages involved in making a clay lid 8,000 years ago were not much different from those used today: the clay had obviously to be gathered, cleaned of all its impurities (in other words anything not needed for making objects and which might actually have ruined the final result), crushed, smoothed, and decanted. At this point the paste could be made, with the simple addition of water. It could then be modelled, either using the coil construction technique with long 'worms' of clay mounted in a spiral one on top of another, the ball technique with the pressure of the fingers used to hollow out the middle, or moulded. Once shaped, the lid or container was left to dry in the sun.



Only later was it discovered that when baked and hardened at high temperatures, this clay lost all its water and also the capacity to absorb any more. The invention of the [1] furnace allowed for higher baking temperatures and greater control of the atmosphere. The potter could oxidise his products to give them a yellow or red colour, or turn them black or grey. The furnace was also fundamental in the development of metalworking: articles in copper and bronze started to spread throughout the south-eastern Mediterranean. As this technology developed, vases, bowls, lids, and covers started to take on more artistic shapes.

I leave Iran and continue my travels, heading for the Americas. Here the population is mainly involved in hunting and intensive gathering. Some experimental cultures are to be found in Peru, but their technology is way behind that of the Neolithic village in Iran, and I only see tools and stones for grinding.

The situation is pretty much the same in Western Europe and on the African continent.

To admire the Yangshao jars decorated with their spiral and curved patterns, normally buried with their dead owner, I will have to leap forward almost two thousand years. Finds in the villages of Pan-p'o-ts'un, in Northern China in fact date back to 3000 BCE.

And so I go back to where all civilisation really started, in that magnificent land between the two rivers: Mesopotamia. The two rivers are the Tigris and the Euphrates, both originating in the Taurus mountains, in what is today Southern Turkey, among oak, pine, cedar, and juniper forests. If it were not for these two rivers, this region would be an eastern extension of the harsh desert that from Syria stretches to the western edge of the Iranian high plains, and this is the reason why the Greeks were later to call these rivers the 'life of the country'.

I head towards Uruk, the enormous Sumerian city, whose walls are said to have been founded by the legendary hero Gilgamesh. I find myself before the first real metropolis in

the history of the world. Expanding with more dynamism that rationality, Uruk is a conglomeration of houses in brick, mud, and clay, winding narrow streets and wider avenues, enormous warehouses that store produce from cultivation of fertile fields. To the north, the city is dominated by a group of magnificent temples to Inanna, the Sumerian goddess of love. Their façades are decorated with cone mosaics in black, red, and white geometrical patterns.

The Sumerians are a peaceful people: careful farmers, brilliant inventors, sufficiently clever traders, they were the first to conceive, 3,500 years before the birth of Christ, a form of writing, which they used to keep track of the foodstuffs stored in their huge warehouses and the relative trading deals. It was then also used to tell the cult of the gods, stories of kings, religious ceremonies, wedding and divorce deeds, astronomy tables, astrological forecasts, and for the compilation of mathematical formulas and geographical lists.

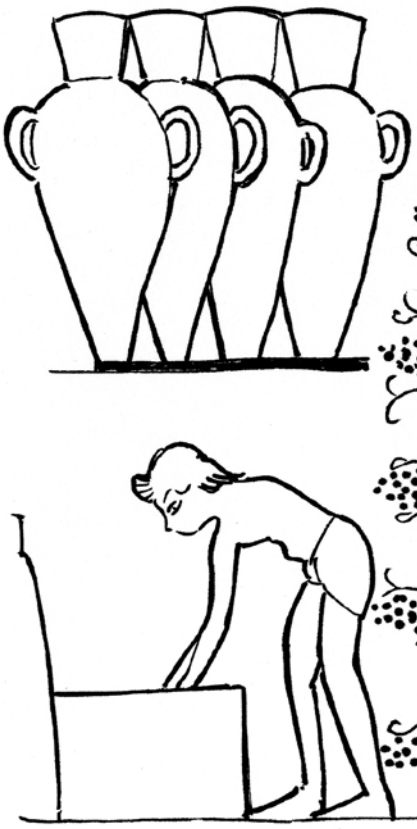
To them we owe the most important inventions of our history: wheels, ploughs, bows, the architectural arches, nails, pedal-operated lathes, coins, and beer! I can see them, these friendly little men, short and colourful, in groups as they sip their beer, made from fermented wheat and filtered through a long straw that is passed from hand to hand, almost as if it were a ritual.

The beer is stored in large clay jars, sealed with different kinds of lids: clay worked on the lathe, green pine cones, and pieces of wood wrapped in strips of hide.

Outside the city, near the lakes, dark oily puddles can be seen: this is the bitumen that in this region bubbles up abundantly out of the ground. The presence of this oil-based material meant the Sumerians could refine their metalworking techniques because while Mesopotamia does not have a wealth of minerals, it does have plenty of the fuel needed for the extraction of metals. Throughout Uruk I find fine objects in copper and in the temples, where religious ceremonies were held and offerings were made to the gods, exquisite jugs, glasses, and small ampoules with stoppers in gold, silver, and bronze.

If I now look towards Egypt, I will not find the same splendour as here. Only in a few centuries' time will the Egyptians manage to equal and perhaps surpass the magnificence of the Sumerian civilisation. If I did not have another five thousand years of history ahead of me, I would linger longer in these places, which even the Holy Writings, in the book of Genesis, indicate as the location of Eden, a paradise on earth. But I still have a long journey ahead of me, with so many lids yet to meet!

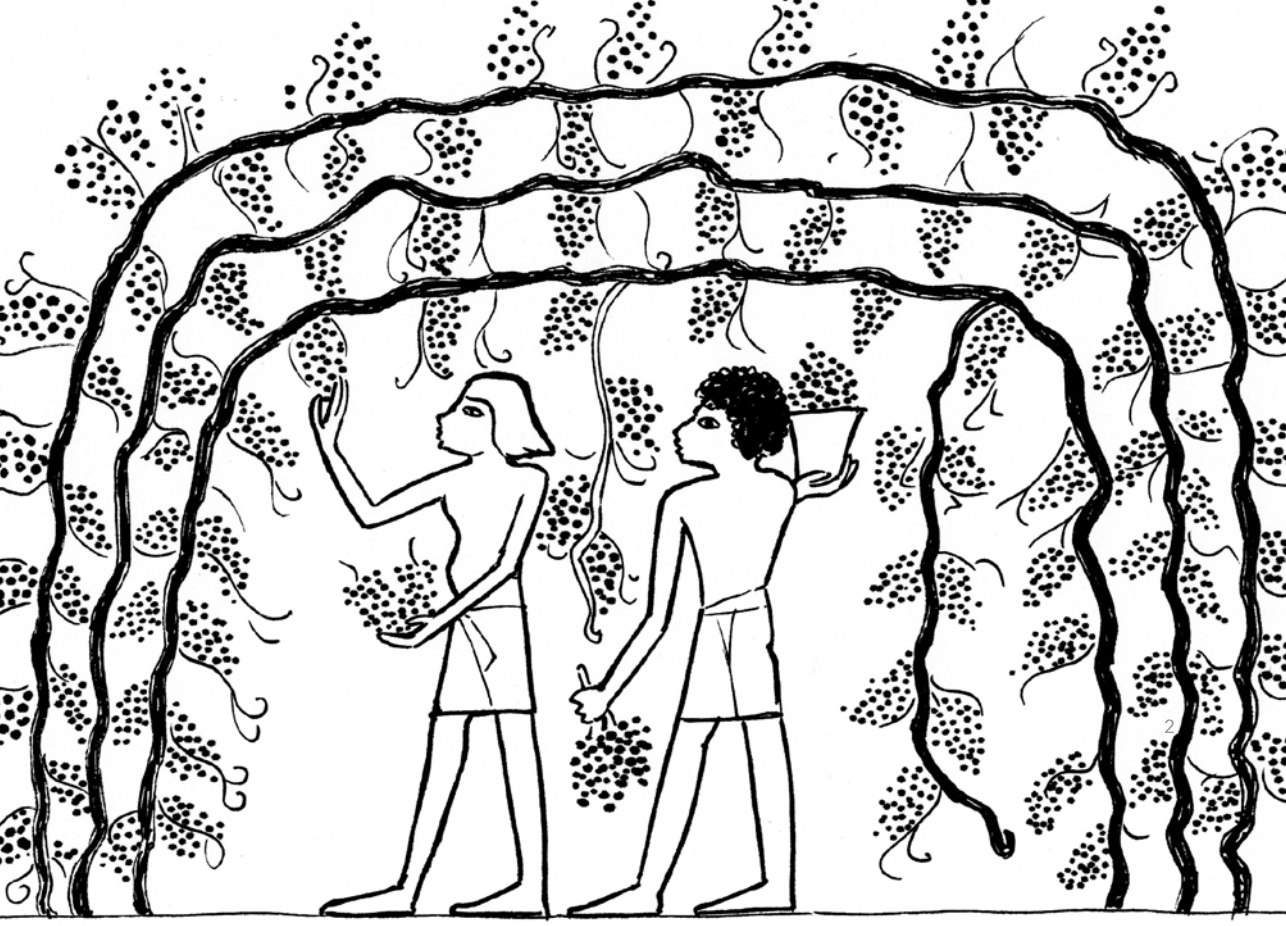
I move eastwards, into the vast Nile valley. The Egyptians called their country the 'kingdom of the two lands'. The delta region is Lower Egypt, on the Mediterranean, it absorbs the latter's favourable influence, climate, and culture. Here it rains heavily all year round and in fact prairies, pastures, gardens, and vineyards stretch as far as the eye can see. Upper Egypt is for more than six hundred miles a closed valley that sees very little rain, the only fertile land represented by two fairly narrow strips either side of the Nile. Farmers here simply throw seeds into the silt left by the high tide and then, in the springtime gather in abundant harvests ready for the picking. The watch on my wrist cannot be as accurate as the time I come from; it shows a period sometime close to 2500 BCE, the era known as the 'Old Kingdom'.



The two kingdoms have been unified and political stability is guaranteed by the figure of the Pharaoh, no long just a man with a divine role but now recognised as a true god on earth, who ensures his people the conditions and support necessary for progress in the arts and crafts and for the spreading of artistic expressions.

Hieroglyphics, initially used only as a means of communication and registration, now have an artistic and magical function. They tell the story of the lives of the pharaohs and the peoples under them and describe the cosmogony of their many gods.

In this era, the Egyptians know about the vinification process, the word they use for wine is *irep* (transliterated as *irp*). Wine is used for religious purposes during rituals as it is thought to have divine properties and it is an exclusive



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drink for the elite, produced under the aegis of the king or members of the royal family. For the Egyptians, wine and the vine are symbols of rebirth because they are associated with the god Osiris, who was the first to be reborn after death. This image is strengthened by the role of Osiris as the god of vegetation: with his greenish face, he represents the force of the land that is reborn and turns green again every year, thanks precisely to the water and the silt of the Nile.

[2] The vine is cultivated like a wonderful garden, with supporting trusses, trellises, or pergolas giving the plants more room to grow. Harvesting takes place in July. Once picked, the grapes are crushed underfoot in a ceremony with music and singing. Crushing is followed by pressing, using a linen cloth into which is placed a mixture of skins, stalks, and seeds scooped up from the bottom of the tubs. This is then

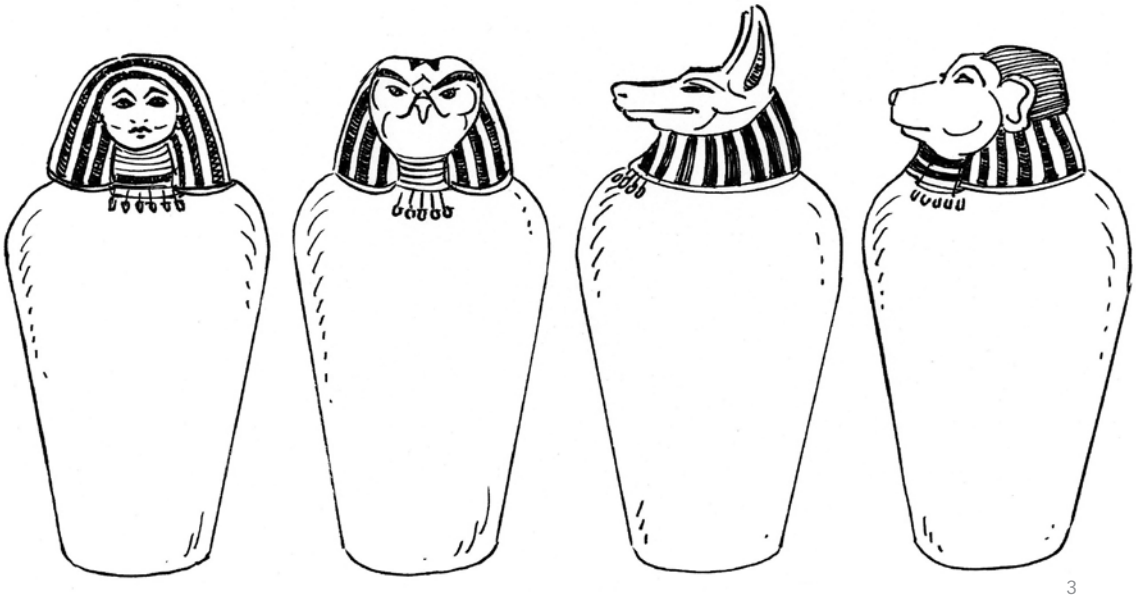
wrung to squeeze out a liquid that is put to ferment in large clay vases and then poured into amphorae that are sealed first with a lid made from leaves, chaff mixed with mud, canes or papyrus fibre and a second lid of fresh clay onto which is impressed the Pharaoh's seal. These ancient clay lids therefore act as real labels for the wine, giving the year the grapes were harvested, their type, quantity and sweetness, geographic origins, the vineyard, and its owner's name. The complexity of the seals on the amphorae make them difficult to open so that, at the start of libation, a hole is made in the neck of the amphora through which the precious drink is poured. Is this the first disposable container in history?

This region not only knows wine, it also has beer and the containers and techniques used for sealing the containers are not very different from those described above.

I come across thousands of other small ampoules on my journey through the wonders of the pharaohs. Lots of little bottles hold the perfume, unguents, and personal care products so dear to this ancient people. For them, they use precious metals (for the containers and lids), a rudimental kind of glass, and alabaster, a light amber-coloured calcareous stone.

At this point in my journey, I find out that the different civilisations I have encountered have used the same materials to make the lids and that these are no longer just simple seals for the containers to stop their contents leaking, but they have taken on the fundamental function of preserving what they keep inside.

Preserving is more than containing; it implies the awareness that the contents may deteriorate, it indicates a desire to preserve them against the damage wrought by time. And this is the reason behind some special lids I find in the Pharaoh's tomb. These are not simple clay discs, they are the expression of an art that testifies to belief in a life after death: the seals on canopic jars. These are storage jars inside which the entrails of the dead person, extracted dur-



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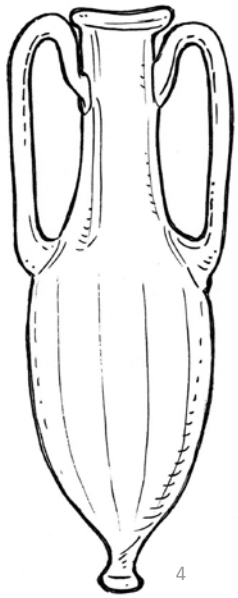
ing the mummification process, are put to preserve against all possible dangers, hunger, and thirst in the afterlife.

There are four canopic jars, like the points on the compass
[3] and the children of Horus to which each one corresponds, sealed with lids that represent their features. A lid shaped like a baboon's head seals the jar that contains the lungs, protected by Nephthys and placed to the north; a human head, depicting Isis, protects the liver, stored to the south; the stomach, sealed with a jackal's head, is entrusted to Neith and placed to the east; while the intestines, inside the jar sealed with a falcon-head lid, are positioned to the west and left under the protection of Serqet.

I set off again, leaving behind me the silence and mystery of the pyramids, and step into bustling Egyptian daily life. Among the stalls of the old markets I spot a small terra-
[4] cotta vase, about four inches tall, sealed with a lid in the same material. How strange, it reminds me of the shape of an opium poppy seed pod… The vase comes from Crete; this I deduct from the seal, which bears an inscription in Linear A, a writing system used by the Minoans, which in fact originated in Crete. This first form of writing, which will

then be replaced by Linear B, from which the Greek language derived, is unknown to the Egyptians and will never be deciphered in history.

Cretan opium is a very expensive product, traded with copper and silver and in Egypt they use it in huge quantities, mixing it with honey. To stop the contents being confused with other perfumes or unguents, due to the language barrier, the clever Cretan merchants have come up with these little jars in the shape of the poppy fruit. This is the dawn of product branding: the two horizontal rings around the neck of the vase where it joins the handle look like the circular protuberance on the stem at the base of the poppy seed pod, while the linear inscriptions on the belly of the container look like the lines cut into the fruit to extract the opium.



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I am struck by how these peoples trade the produce of their lands and especially by their creativity in overcoming difficulties caused by different languages. No translation problems with communication here — our forefathers invented marketing in order to perfectly understand each other for win-win business dealings!

At this point I cannot continue my journey without popping over to Crete. The island is very different from the pictures I am used to seeing in magazines from my era: vast forests of Mediterranean scrub cover most of the island and the cities of Knossos, Phaistos, Malia, and Zakros are examples of a much more refined civilisation compared to the ones I have seen so far in Egypt and the Middle East.

I am especially fascinated by the magnificence of the palace in Knossos, a multi-purpose building with several storeys. Inside, as well as courtyards and porticos, there are artisan workshops, storerooms, administrative offices, residential sectors, ceremonial areas and others used for games and theatrical performances.

I am seeing a kind of architecture that is particularly attentive to ease of use and practicality: the paths are paved and shady, there are underground systems for channelling water, and the building has evidently been constructed to

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follow the natural lie of the land, evidence of care paid by Cretan architects to the landscape.

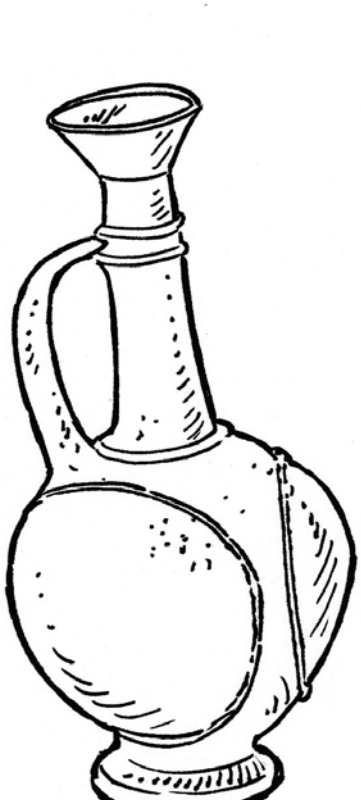
I enter the building. The rooms are decorated with stucco work and frescoes inspired by life at court. The pottery, modelled very thinly, is embellished with figures of marine and land animals and stylised plant patterns. The bull is depicted everywhere, in reference to the myth of the Mi-

notaur, the monstrous son of Pasiphaë, wife to Minos and the white bull donated to Crete by the god of the sea, Poseidon. The myth tells how the bull, symbol of the gods' [5] support of Minos and his kingdom, should have been sacrificed in honour of the god. Minos refused to kill it, intending instead to keep it among his herds, and this incurred the wrath of Poseidon, who forced Pasiphaë to fall in love with the animal and bear it a child. The Minotaur was finally killed by the Greek Theseus in order to free Athens from domination by Crete. He also managed to find his way out of the maze in which the monster had been imprisoned, following the thread unrolled by Arianna, Minos' daughter.

The Cretans are a peaceful people, with no army, mainly devoted to crafts and trade. They have built new boats that are better suited to sailing the seas, developing the Sumerian model of boat and adding a keel. Their trade routes mainly include the coasts of Syria and Egypt, countries with whom they trade oil and wine produced on the island and articles produced by local artisans, which also include the little jars of opium I have already mentioned. The inhabitants of the Greek coast are still very backward, but they will owe their subsequent development to Crete and its splendour.

I leave the refined Cretan pottery and its lids behind me, before the earthquake on 21 July 365 devastates and destroys this island's treasures and I finally embark on a Phoenician boat. The tour of the Mediterranean in this era is very different from today's pleasure cruises around the Greek islands on a luxurious ship! I do not really have much spirit of adventure and I admit to being rather frightened, but I definitely could not have chosen a safer boat or more expert crew.

Throughout the known world they tell of the greatness of the Phoenicians as a people of the sea; their boats are the fastest and sturdiest in the Mediterranean and no other land-dwelling people has such an in-depth knowledge of the currents, the sea winds, and the map of the sky. Their fame goes before their every landing and it is whispered



that the pharaoh Necho funded a Phoenician expedition to circumnavigate Africa. On board they tell me that it took more than three years' sailing to get right around the continent and that many, both in Carthage and in Egypt, thought that a storm or some monstrous sea creature had devoured the boat and all its crew, before their triumphant return home.

The boat is quite broad, rounded in shape and designed to transport goods. The hull is built entirely in wood, held together with tow and pitch and no nails have been knocked into the boards on the bottom. The stability of the boat is guaranteed by the weight of the sand in its hull, the space that is also used for storing the amphorae. On the central yardarm, built from Syrian cedarwood, unfurls an enormous square linen sail that allows the boat to navigate the high seas, but does not enable turning as it is a single, central sail. The idea of the lateen was to come much later, in the Middle Ages. The boat has room for some twenty oarsmen, whose powerful contribution is necessary when the wind drops and, especially, close to the coast to reach land. The helmsman manages an enormous oar astern, and two huge eyes are painted on the bows so that the boat can 'see' its way better.

While we are sailing the high seas, during a moment of calm, I go up to the captain who, as well as heading the [6] crew, is also the trade owner of our entire load: once on land he will negotiate trading.

I ask him to tell me about the glass ampoules that he is carrying. With an obviously satisfied air, he tells me that in Mesopotamia and in Egypt he had noticed articles embellished with an unusual, translucent material, of a bluish-green colour, but that in effect it was only by chance one evening, returning to Candebia and tired by their travels, they decided to stop on the coast for the night. Once on land they realised that there was nothing to hand to hold the coals, so the captain ordered one of his men to unload a block of soda from the ship (used at the time for the production of soap) and to use it as a base for the

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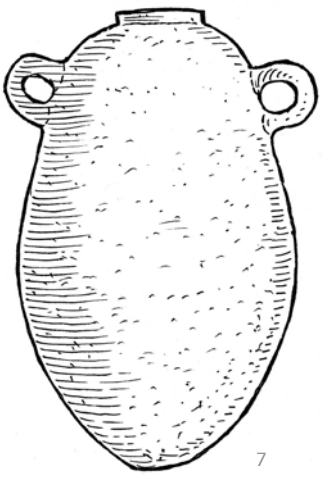
fire. They were still having dinner when they realised that a greenish matter with a consistency similar to lava, was trickling towards the sea. They then realised that the soda, mixed with the siliceous sand on the beach, had created something new. The next morning the material had solidified and, once back home, they instructed artisans to start making ampoules with this material discovered quite by chance.

I smile at this tale. The captain has no way of knowing that the material that appeared so magically under the stars was to be the main player throughout the modern history of drinks. I thank him, say goodbye and continue to explore.

The ship we are sailing on, like almost all those that sail the Mediterranean from now until medieval times, mainly transports amphorae. These are used for trading wine, oil, *garum* (a fermented fish sauce popular as a condiment), preserved fruit, olives, honey, and legumes. These containers are loaded and unloaded by the ship's crew or the slaves working for the merchant. To stop them from tilting into one another and breaking, during the journey they are arranged vertically, one next to another, sunk to a depth of one third their height into sand and covered with straw. [7]



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Once at their destination, the contents of the amphorae are poured into larger containers and the amphorae are then destroyed. The exceptions to this rule are fine wine amphorae, which are also used for direct consumption and preserved in special rooms, both leaning against the walls and also sunk into sand. An empty amphora weighs an average of forty-six pounds and can hold an average of 26.22 litres. Most of them are made near to the production place of their contents and they must be solid, appropriate for the product, and… cheap.

The amphorae in the various places the Phoenicians land are obviously not all identical. Some have different shapes and weights, and for this reason marketplaces always have a sample amphora on hand to check capacity. The mouth and neck form the upper part of an amphora, the neck of-

ten shaped with protuberances, narrowing or grooves, and the shoulder onto which the handles are moulded, making the amphora easier to grip. Below the shoulder is the belly, taped differently according to its country of manufacture, and the foot that is sunk into the layer of sand that covers the bottom of the hold. The amphora parts are often made separately, smoothed internally and externally with wooden or metal tools, and finally cemented together with mud, a paste made from clayey earth and cooked linseed oil. Once assembled they are baked in a furnace.

[8] The lids used to close amphorae vary according to their contents: opercula, or discs of terracotta are very common, they have a central grip and are fixed to the wall of the amphora with a wedge of lime-based mortar. Very often, these discs are inscribed with references to the shopkeeper or producer. Other very popular forms of seals are fragments of pottery from other amphorae, without any kind of inscription. Much rarer are *amphoriskoi*: little solid terracotta amphorae used as stoppers for the bigger ones.

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Marks are often reproduced on the handles, neck, or rim of the mouth, these 'signacula' are the brands impressed into the clay or lid before baking and they give the name of their manufacturer (who may also be the owner of the ship or the transporter); the 'tituli picti' are inscriptions painted using hog's bristle or a finger dipped in colour giving the contents, their origins, the transporter, the weight, and order number in the hold; while 'graffiti' are marks engraved that give information about the potter.

They indicate the containers' origins and date of production and also guarantee the quality of the product and the prosperity of the places of origin. The 'rose' symbol is famous as the distinguishing mark of one of the most important wines at this time: passito or raisin wine from the Island of Rhodes.

Travelling in time, constantly on the trail of these containers, I finally find the predecessors of my friend Gianni's corks. I am still sailing about the Mediterranean and now almost all the coasts are inhabited by lively civilisations

that communicate and trade goods of all kinds. It is the fifth century BCE and the Greeks and Romans are starting to use cork as a material for making amphora stoppers: these discs are placed inside the neck, sealed with lime or *pozzolana* (a kind of volcanic ash used for mortar and mainly extracted in Pozzuoli, hence its name) and finally topped with a green pine cone to lend aroma to the contents. Less frequent is the use of cork alone and I believe this depends on the less than precise manufacture of the container, making it difficult to seal with a mechanical means alone.

At this point something must be said about cork and how it is worked still today.

Cork is the outer bark of the cork oak (*Quercus suber L.*) [9] that protects the plant from drying out and against unfavourable environmental conditions. It is an inert layer that takes part in the growth of the tree without actually having any active function. The tree can therefore be stripped of this external bark without harming it in the slightest, as long as this operation is carried out without damaging the tissues under the phelloderm (tissue made up of living cells generated by the phellogen underneath the primary bark).

The cork oak mainly grows in the ideal conditions to be found in the western Mediterranean basin, especially in Portugal, Spain, Algeria, Italy, Morocco, and Tunisia. In Italy it grows primarily in Sardinia, but small cork plantations can be found in Liguria, Tuscany, and Sicily. An oak or cork grove is a very special ecosystem, one of the richest in the world. It provides a home for over 160 species of birds, 24 species of reptiles and amphibians, and 37 species of mammals, some of them on the verge of extinction.

As this tree lives to a great age, over its lifetime it stores higher amounts of carbon than other species. Considering the total surface of oak groves, oak forests in the Mediterranean basin have a capacity for storage of about thirty million tonnes of CO2.

Cork is a plant tissue characterised by the presence of dead cells arranged in layers without any spaces between

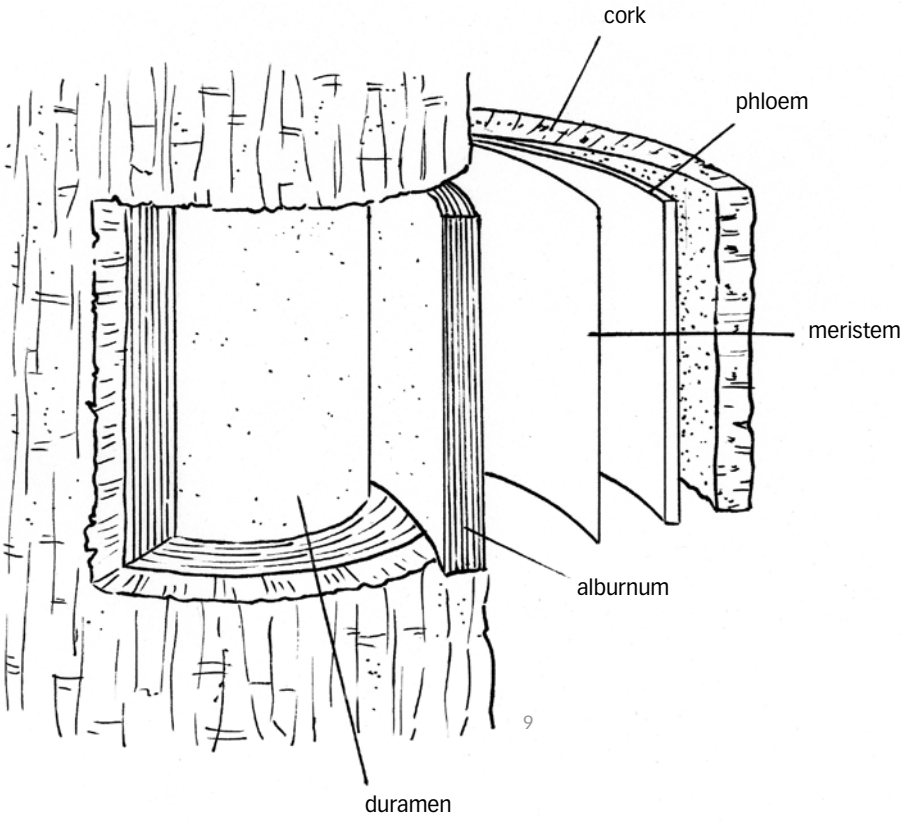
the cells. The number of cells varies from a minimum of 15 million to a maximum of 30 million per cubic centimetre. This particular structure is caused by the process of suberification that occurs during the plant's vegetative cycle; some of the plant's cells modify due to the secretion of suberin, a special hydrophobic substance made up of fatty acids, which deposits on the cell wall. At the start of their formation, therefore, the cork cells are also alive, then, due to the effect of suberin secretion, exchanges with neighbouring cells, also responsible for the growth of the secondary wood — the core of the plant — continue to decrease, causing the cells to die and fill with gas, making cork an excellent insulation material.

Cork grows very fast and each year the tree produces a ring of tissue separated into spring cork and summer cork, easy to tell apart thanks to their colour and structure, with summer cork being thicker and darker. The cork formed during the early years of the oak's life, called 'virgin' or 'male' cork is very dense, not very elastic and deeply grooved, due to the unevenness typical of the tree's early growth stage.

The first stripping is carried out when the trunk reaches a diameter of about 80 centimetres, between the oak's twentieth and twenty-fifth year of life. Due to its poor quality, this male cork is not used for cork production but is mainly used in the building industry.

After this initial stripping, a new portion of cork forms on the uncovered surface of the tree. This is called 'female' or 'reproduction' cork and it has regular circles. This cork is harvested later, in cycles of 9 to 12 years depending on how the bark grows. Quality cork has regular growth rings, neither too thick nor too thin, which make it particularly compact and elastic. This product mainly comes from mountain zones where the trees grow more slowly and after the fourth or fifth stripping.

A single plant will produce from 33 pounds for a young tree to 100–110 for one at the peak of its production. The



stripping operation is carried out by hand by specialist operators called 'extractors' who use long, very sharp axes to first make a horizontal cut around the tree at a height about two or three times the diameter of the tree and then two or more vertical incisions (depending on how thick the tree is), which allow the 'planks' of phellogen to be pulled off.

Freshly harvested, the cork has a fairly high natural humidity level, ranging from a minimum of 10–12% to a maximum of 40–45%, and so the planks are piled into tall heaps and left to season in the open air in large courtyards for 8–12 months. Thus exposed to the air, the cork dries and its humidity reduces to the same level as environmental humidity of around 8 and 10%.

The seasoned cork then undergoes a series of processes: first it is boiled in tanks fitted with devices to stop it from floating during this stage. This boiling improves the physical characteristics of the cork, leaving it more elastic and less

porous and as a consequence easier to work with. After boiling, the cork planks are scraped — the outer bark is removed with a loss in weight of about 10–14% — and then smoothed to eliminate any faults. At this point the cork is placed on pallets and stored in well-ventilated rooms ready to be classified into the different quality categories. There are no precise regulations governing classification of the planks, with each country having its own, different, purely subjective methods. The most sought-after quality is the densest, smoothest, most even cork, without any knots or differences, holes, or cracks. Each category is then sorted according to thickness. The unit used to measure thickness or 'calibre' is the Catalan line, which corresponds to 2.256 millimetres. Based on their calibre, planks measuring 6 to 12 lines are used for the manufacture of washers and those measuring 12 to 18 lines for single-piece bottle corks.

Continuing my journey through Ancient Greece, I meet Diogenes the Cynic in Corinth, where he is said to have arrived as a slave due to a story of false coins. I think I could travel in time backwards and forwards without missing an era and never meet a more unusual, bizarre man.

[10] Diogenes insists on being called 'the dog', perhaps because he lives on the street, or perhaps to proclaim his indifference towards exterior comfort and his total lack of shame: he eats and drinks without using any kind of bowls. It is said that the only bowl he owns he threw out after seeing a boy drinking water from the river using his cupped hands. They tell so many stories about him and one of them on audacity and disgust in the face of power I find particularly striking.

After arriving in Corinth and meeting many of the city's statesmen and philosophers, Alexander the Great is said to have expected to also receive a visit from Diogenes, who, however, paid not an iota of attention to the emperor. Made curious by this behaviour, Alexander himself went to visit the philosopher and found him lying out in the sun. Diogenes raised his eyes a little at the sight of so many people coming towards him and stared straight into the

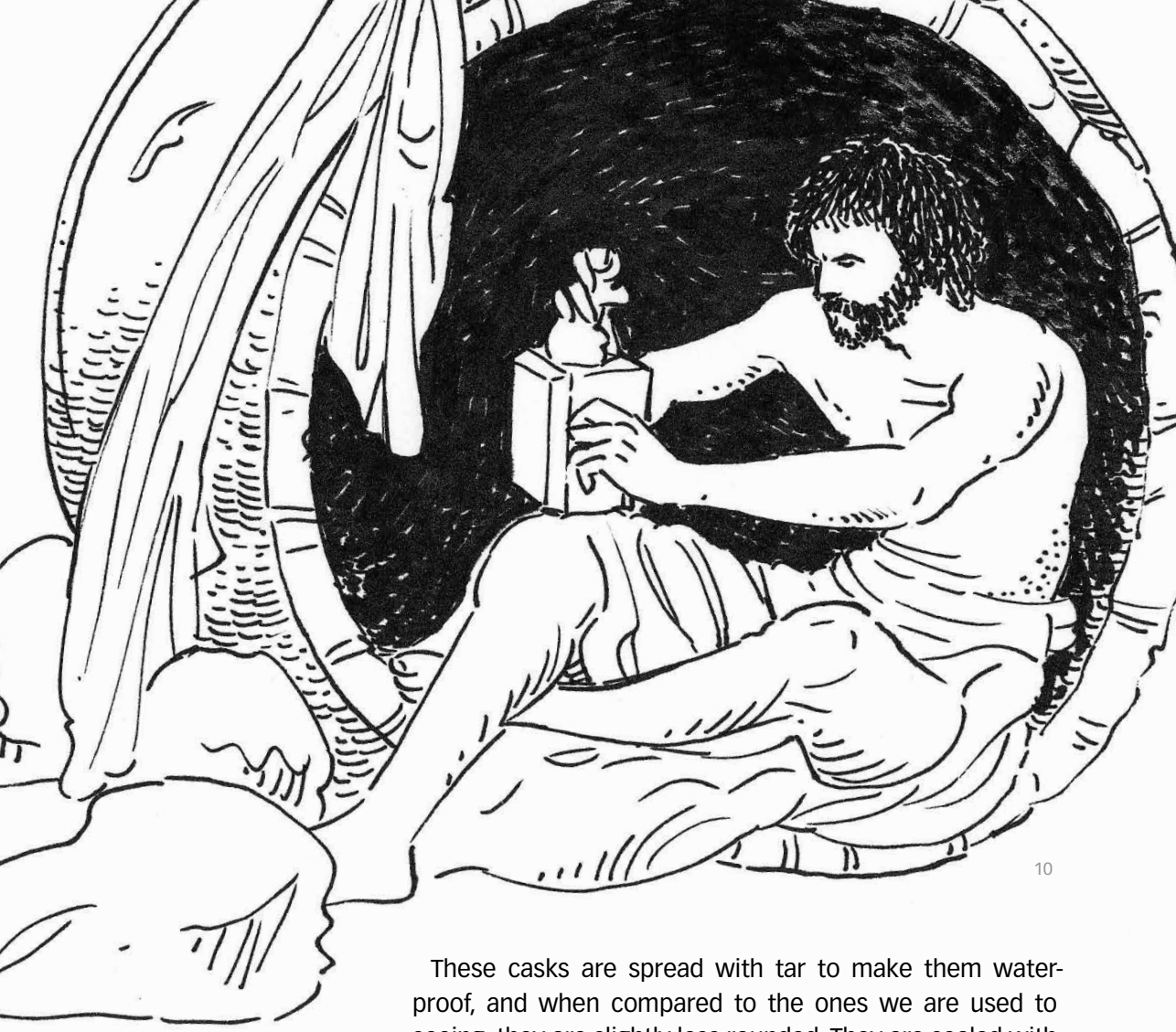
eyes of Alexander. When the monarch saluted him and asked if he wanted anything, the cynic replied: «Yes, get out of my sun!» In other words, don't put me in the shade. Alexander the Great took it well and it is one of the reasons he is called 'Great'.

Diogenes' life is a tangible example of his philosophy. He puts the freedom of man over everything, his supreme right: freedom of speech, freedom from politics (which he voluntarily refutes, describing himself, in a totally surprising way for this era, a 'citizen of the world'), freedom from social customs and traditions (believing civilisation to be regressive for human nature). I meet him because I am curious to see if he really lives… inside a cask. Of all the anecdotes told about him, this, unfortunately, is the most incorrect: Diogenes does not actually live in a real cask, I would say it is more a tree trunk dug out to make a hollow, similar to some of the containers already seen in Mesopotamia and in Egypt. No lid, therefore!

I say goodbye to Corinth and its eccentric inhabitant and go looking for those who really invented the lightweight, handy container that replaced the amphora on trade routes. I move from the warm climes of Greece and travel northwards and in the area between southern Germany, eastern France, and Switzerland, I come across a civilisation that will later be given the name 'Celtic' and which will also reach into other regions of western Europe.

The Celts are not one people; I would describe them as a group of lots of families sharing the same culture at their origins and the same language, with dialectal variants from region to region. They don't even share political unity. The most important tribes are the Britons, who live in the British Isles, the Celtiberians, who inhabit the Iberian peninsula, and the Gauls, whom I meet in the regions of what is today France. These peoples are experts in the art of weaving and dyeing, and in working minerals, in particular iron and wood.

To them we owe the invention of casks and looking at them closely they are exactly like the casks we have today: a series of planks of wood held together by iron rings.



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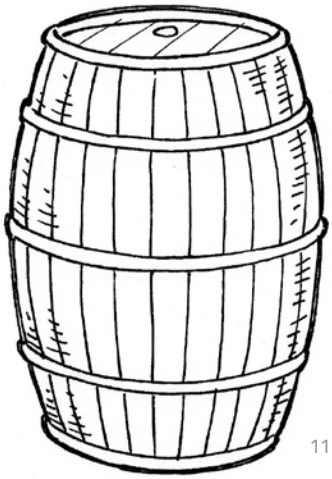
These casks are spread with tar to make them waterproof, and when compared to the ones we are used to seeing, they are slightly less rounded. They are sealed with wooden stoppers. This kind of container offers countless advantages compared to amphorae because they are easier to transport, as they can be rolled along the ground, and they hold more than amphorae do: someone in Rome says he saw some as big as a house! Casks also allow wine to be preserved even at low temperatures without it going off, a very important factor for these people who, unlike the Latins and Greeks, live in cold climates.

[11] The invention of the cask stems from the need to have a container for the transport of liquids that is light, practical, and cheap. Wood is therefore a natural choice for these

Nordic people, and they mainly use oak, which, as well as being more resistant than terracotta, is abundantly available in their countries. They do not yet know of the importance of using wood for the quality of the wine: the release of the essences and the chemical mechanisms linked to the transformation that wine undergoes in casks are concepts that will be learnt over time, probably empirically.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In this period, as well as the introduction of the cask, glass is also becoming widespread in Rome as the favourite material for vases, jewels, and decorative elements, for example the mosaics mainly found in noble homes.

Glass is dominant in female toiletries and I find lots of *balsamaria* or *unguentaria* with a pear-shaped, globular, or tubular belly, deriving from that of the ceramic containers for perfumes, cosmetics, and medicines. Some copy the shape of flowers or fruit: date balsam for example is stored in phials shaped like the fruit of the palm tree and this makes me think of an ancient marketing operation! The Romans have a truly great passion for perfumes, stemming from their encounter with Egyptian and Greek cultures. Until these territories were conquered, perfumes in Rome were only used for holy functions, as can be deduced from the name itself: 'pro fumus' in fact means 'through the smoke' (vapour) which is the preferred means for contacting the gods. Myths tell how the goddess Aphrodite gave Phaon the first little bottle of perfume to thank him for having ferried her on his boat without asking for payment.

Perfumes generally come to Alexandria, the biggest emporium in the Mediterranean, stored in amphorae and from here they are sorted and decanted into smaller and more artistic containers. The most commonly used containers are in Egyptian alabasters: the aryballos (a small flask made from a variety of materials, some even quite precious) and the pyxis (a little cylindrical box with a lid in bone, bronze, or glass). Dove-shaped unguentaria are very popular, which look like our phials, without a lid or cover. Once filled, the doves are sealed with a flame and the beak or tail of the bird must be broken in order to use the contents.

Roman perfumes are very different from ours. The technique of distillation will be introduced by the Arabs only after the Year One Thousand, so right now we only find scented oils and creams. Perfume is made from a greasy base, which may be lard or beeswax for homemade perfumes, or almond, olive, or sesame oil for more sophisticated versions. The essence is then left to steep, either heated or cold, on this greasy base. There are plenty of essences available: myrobalanus, costus, marum, myrrh, cinnamon, storax, spikenard, opobalsamum, calamus, sweet rush, œnanthe, malabathrum, serichatum, henna, aspalathus, saffron, cypirus, sweet marjoram, lotus, and honey. Of these, cinnamon is a very expensive, very fine ingredient: they say that to find it, in Ethiopia, they must climb up steep cliffs and steal it from the nests that the Phoenix, the mythological bird of fire, build with these scented sticks!

Stories

Lids, caps, plugs, stoppers, corks … or *tappi*

So many different shapes and sizes, so many different names … in English. The Italians, on the other hand, have this whole lid, cap, plug, stopper, cork thing … covered (excuse the pun), with just one word, *tappo*, which includes all various stoppers and closures used for any kind of container. So the following are all *tappi*:

mushroom corks, screw caps (also with a breakaway band, a piece of plastic or metal that forms the seal), pull-off tops, crown caps, hermetic seals, waterproof caps (on medicine and perfume containers), mechanical, with a spout, droppers, drip stoppers, and with holes. Seals and protection for food or drink in containers (wine, water, oil, or liqueurs) and also to stop other kinds of liquids or powders from spilling: fuel from a tank, detergent from a bottle … Not forgetting the lids — ahem, it's again *tappo* in Italian — that close openings or obstruct pipes, channels or even volcanos. (In volcanology, a 'lid' of lava is known as a spine and once eruption begins it is violently discharged in blocks or fragments).

Then there are plugs — guess what? The Italians call them *tappi* — those rubber or steel objects that stop the bathwater from draining away, but there are also mucus plugs in the nose that make breathing difficult and earwax plugs that make you deaf or reduce hearing. Ear plugs however

are a different matter: these are artificial plugs used to reduce noise as required by health and safety laws in chaotic workplaces, used by swimmers to protect their ears from water, and also by wives who cannot sleep due to their husband's snoring, or vice versa.

In the automobile industry there is the fuel cap and the radiator cap.

In radio engineering, the Italian *tappo-luce*, literally a 'light-cap' is the link between a radio receiver and the lighting network, in English called a mains-aerial!

Sailors use a hawse plug to stop the holes in the ship's bows through which the anchor chain passes. Again in seafaring jargon, *riempire a tappo* means to fill a container in such a way that the ship's rocking does not cause the liquid to spill.

Lids in the world of artillery include the muzzle cap (the closure on the mouth of a firearm that protects it from the elements), the dummy nose plug (shaped the same as the fuse outwardly and used instead of it when, during experiments or drills, the bullet must not explode when it reaches the target), the primer cap (which contains the primer and is hit by the firing pin when the gun is fired). Hunting cartridges also have a *tappo*, which in English-speaking countries hunters call a cartridge head.

Lifting the lid. The true tale of corks, caps, stoppers and more by Alessandro Zaltron and Francesca Marchetto, was designed and laid out by Elsa Zaupa in the Graphic Design Office at Ronzani Editore, using Adrian Frutiger's Vectora typeface.
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