Part 1 History
1 Sweet Wines: The Essence of European Civilization

Attilio Scienza
Department of Agricultural and Environmental Sciences, University of Milan, Milan, Italy

Quis non malarum quas amor curas
habet haec inter obliviscitur?
(Among such delights, who cannot fail to forget the sad cares that passion may bring?)
Horace, The Book of Epodes

1.1 HISTORICAL PATH

The aim of this chapter is to cover the broad subject of sweet wines throughout European civilization. A historical path will guide us from their origins to the present date.

The following are the constant elements in the production and trade of sweet wines:

- sweet wines have always been considered as luxury goods and imported by merchants;
- ordinary wines were normally produced and consumed within the local area, whereas sweet wines were generally produced close to commercial areas such as harbours;
- for light wines, climates and soils are key factors in order to obtain certain features; the quality of sweet wines, however, is more influenced by technology in the vineyard (choice of grape variety, late harvest) and in the cellar (concentration and stabilization techniques);
- consumption of sweet wines has always been regarded as fashionable rather than as a complement to food (unlike dry wines); as with all fashions, the consumption of sweet wines has had its own ups and downs, but its importance in the production of wine on a worldwide scale is always high, even though the market offers a full range of alternative drinks.

In Les Memoires de la Mediterranée (1999), Braudel claims that it is no great effort to feel at home within the familiar Mediterranean environment, whether in Venice, Provence, Sicily, Malta or Istanbul. There is an endless theme that links these places with their glorious past, through the names of their wines (especially the sweet wines). These places are the borderline between prehistory and our traditional history. We can identify this story with the birth of the first agricultural civilization not just in the Mediterranean region, but throughout Europe: the Fertile Crescent revolution.

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1.2 ORIGINS

Wine is the symbol of the ancient peoples who developed in the Mediterranean region: the cradle of civilization. The first Sumerian evidence in the Fertile Crescent goes back to 3000 BC. The myth of wines spread throughout Aleppo, Ebla, Morì, Ugarit: the tablets of Paleo-Babylonian archives contain names of feasts and banquets where wine played a central role.

The origin of the word wine, ‘wine’, in Hittite means ‘stick of the Bacchants’; this identifies the sacredness of its use. Throughout the Mediterranean, we have similar words in the various linguistic groups. Even if they do not sound close, they share a common semantic root: wo-no in Linear B, woinos in Greek, wo-i-no in Mycenaean, g-vino in Georgian, yayin in Hebrew, vinum-vinum in Etruscan and vinum in Latin.

The Sumerian pictograms indicating the vine, the vineyard and wine are very similar to the ancient signs TIN and GESTIN. They are interpreted as a grape bunch and a pointed amphora. The correct translation of the signs of the ideogram GESTIN-HEA is not ‘white wine’, as it was believed in the past, but ‘wine + sun’, which literally means ‘dried vine’, therefore ‘raisin’ (McGovern, 2003).

GESTIN SA also means that wine is red, and it is followed by several adjectives such as ‘good, sweet, pure, new’.

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Why was this wine sweet? The clay tablets on which the administrator of the royal warehouses carefully recorded wines constantly show the logogram GESTIN-HAD-AV or GESTIN UD, indicating dried grapes; they were widely used for food rations, as an offer to the gods or as an ingredient in medical preparations.

The red wine SA GESTIN KUB was diluted with water in order to better symbolize blood: this is clearly stated in many Ugartic prayers of the Near East.

In the Hittite and Thracian traditions, offering sweet wine was a privilege of the king: a precise social symbol of power. In the Hittite tradition, it is through the power of sweet wine that the King-Priest Ulikummi is able to capture the snake Illuyanka. This representation often occurs in Greek mythology: a further piece of evidence of the assimilation of the oriental culture.

LA’L GESTIN-KU was the sumerogram for a natural sweet wine that could not be consumed in ordinary situations; it was precious, so it had to be offered to the gods (Gennari, 2005).

There is evidence of a preference for the sweet taste of wine also during the Egyptian transition: the jars in the tomb of Tutankhamun contained sweet wines. It is actually during the period of the New Empire that we have the first evidence of the use of heat to concentrate must; this technique was used to produce sweet and alcoholic wines for long storage.

Almost 1500 years BC, when Egypt was ruled by the Hyksos, a Semitic people from Syria and Palestine, sweet wines started to be produced in the town of Avaris, in the Nile delta. This was discovered in the mid 1990s, when archaeologists found a structure for pressing
grapes and identified a vineyard called Kaenkeme, where a wine ‘... which was sweeter than honey’ was produced. Through the analysis of remains inside the ollas, molecular archaeology confirmed that the wine was red. The red writings (ostraka) on the jars stated the production areas, the style of the wine and the addition of resin or terebinth (Pistacia terebinthus). The indication ‘sweet’ (vip) is the most frequent one, even though it could also have marked the addition of figs and honey.

Vine and wine are also often indicated by the term kur. Kurum has the semantic value of red wine, karanu in Akkadian, carenum in late Latin and careno in ancient Italian, with the meaning of cooked must. This shows how the practice of drying grapes and concentrating must through heat had the same importance in the production of sweet wines. These two techniques were often used together. There is a city in the inland of Judea called Lachish where archaeologists found an Iron Age jar (second millennium BC) with ancient Semitic inscriptions like ‘wine made with black raisins’, ‘smoked wine’, ‘very dark wine’; this confirms the habit of mixing wine from dried grapes with must that was concentrated through direct contact with fire, which gave the wine a smoky-caramel taste.

The terms that we find in Ninurta’s Georgics, dating back to the second millennium BC, refer to sweet red wines, with an explicit reference to blood, as they were used in rituals. For these purposes, people chose vines yielding wines that were light in colour and had a yellow rim, so that the wine looked like blood without the addition of water, as required by the ceremonial. This is the reason why in Magna Greece and Sicily we can still find such grape varieties as Frappato, Nerello and Gaglioppo, low in total anthocyanin and high in cyanin, which is responsible for the light yellow nuance in wines, especially those obtained by drying grapes.

In the ancient Greek tradition, men who were responsible for the community agreed that sweet wine was the best way to establish a new relationship with foreign people (philoxenía). Homeric poems are full of episodes, actual topoi, where sweet wine was the unifying element of relationships among men.

In Book VII of The Odyssey, among the Phaeacians, Zephyrus blows and dries the ripe grapes in the sun; in Book IX, Ulysses offers Polyphemus the sweet, black wine that was given to him by Maron; in Book XI a sacrifice is offered mixing milk, honey and sweet wine; in Books XII, XIII and XIV there are references to the colour of wine, which is red or looks like fire.

In the Homeric poems there are many descriptions of wine evidencing the poet’s attention to the aesthetic side of wine. Colour was almost always red: purple wine (to extinguish the funeral stake), rubicund nectar, rubicund wine, reddish wine, black wine, vermilion liquor, ancient wine, purple nectar, rosé nectar, sweet wine, black nectar (Maron’s sweet wine), soft wine, incorruptible wine (sweet, alcoholic?), soft liquor (sweet?), smoky wine (alcoholic), sweet grape’s liquid, tasty wine, powerful wine.

1.3 DIFFUSING THE MYTH OF WINE

The wine known as wine par excellence, which was traded by the Phoenicians and Greeks throughout the whole of the Mediterranean area, where the symposium ritual was spreading, was almost certainly a sweet wine. It was a luxury good destined for the upper classes and it was also among the most valuable goods for exchange. Only wines with high sugar levels could travel for such trade purposes.
We usually ascribe the improvements of viticulture and enology to the meeting of the oriental and occidental cultures. In fact, new productive varieties were introduced, along with drying techniques to improve the ageing potential of wine. Moreover, new containers were more resistant, easier to produce and to transport: further facilitating trade. The most important innovation was the intuitive introduction of the Greek *emporium*. Wine was transformed from a simple alimentary product to a bargaining chip; moreover, it was associated with the worship of a god who was the protector of viticulture. Such an interpretation, which could seem ideological, is broadly justified by the fact that wine and vine have a huge symbolic importance in the European culture, especially in religion and politics (for ruling and controlling). Possibly, this is the reason why innovation was limited to small daily steps forward by the growers to lighten their work load or to improve the productivity of their plants. Enology underwent even slower changes, and ancient techniques still survive in some parts of the Caucasus, Portugal and Greece.

Production techniques were highly influenced by the development of the local economies and consumption habits. In places characterized by subsistence farming, wine was produced for self-consumption. In such cases, the main features of mixed farming did not change until the arrival of the American diseases. In those places where grapes were grown for wine trade, farming and winemaking techniques underwent several changes. Vines were located along the main trade routes and near harbours, thus they benefited both from proximity to a border (improvement by comparison) and from consumer feedback, demanding new wines made using new techniques. The development of colonies in South America, South Africa and Australia, together with the increasing cost of transport, led to the production of wines and spirits that, through fortification, could both resist long trips and be less bulky to transport. Innovation led to the selection of the most suitable grape varieties for over-ripening (or for noble rot) and to winemaking techniques involving the addition of high levels of sugar and alcohol; as distillation spread, alcohol was used to fortify musts and wines.

Over the centuries, winemakers tried to meet the taste of consumers who, according to the current fashion, wanted wine to be white, red, alcoholic, fortified, sweet, and they adapted viticulture and winemaking according to the market.

The so-called ‘permanent evolution’ phase started towards the end of the seventeenth century, due to three key factors: knowledge, competition and investment. Producers aimed at improving quality wines for long ageing, sparkling and sweet wines.

The development of chemistry and fermentation allowed the improvement of yeasts and the introduction of sulphur dioxide ($\text{SO}_2$) as an antiseptic and a preservative. The other huge factor was the industrial production of bottles and corks.

### 1.4 CLIMATE CHANGES, THE DEVELOPMENT OF VITICULTURE AND THE PRODUCTION OF SWEET WINES

During the third millennium BC, the habits of the Sumerians and their relationship with the gods reveal that the earth was threatened by unpredictable violent forces; heavy rainfalls arrived inopportunistly, flooding entire villages. A rupestral relief from the third millennium shows the Hittite King pouring sweet wine for the god of the sky, Tarhunta, asking him to save his vineyards. A Hittite tablet about climate changes states ‘([Observe]) raisins. As they preserve wine in (their) heart, […] (even) you, god of the tempest, preserve prosperity, vigour, long life (and) the joy of the king, of the queen (and) of the children in (your) heart’.
This prayer is justified by the climatic changes that were destroying the vineyards. Drought became so severe in Mesopotamia at that time, that most southern towns were abandoned and new residential and trade centres were established in the northern part of the region, towards Anatolia. New contacts with the inhabitants of the towns of Ebla and Mari, together with commercial relationships with the Mediterranean ports of Cananeia and Ugarit, enhanced the diffusion of vine and the production of sweet wines in Thrace and Greece from the second millennium BC. The serious drought that struck Anatolia, Mycenae and Crete in 1200 BC was only the starting point of a series of famines that pushed the so-called Peoples of the Sea to invade the more fertile Mediterranean lands, causing wars and devastation that led to the end of the Egyptian kingdom and pushed the Greeks towards the west, founding colonies in Italy, France and Spain, where they started the production of sweet wines.

There was then another long period characterized by favourable climate conditions for the development of agriculture (especially grain). Around the first century AD, the climate changed once again in northern Europe. In 92 AD, Emperor Domitian had to forbid viticulture in all Roman territories outside Italy, so that grain could be grown in its place, since drought made it impossible to grow enough in Sicily and northern Africa.

Emperor Probus also grappled with climate change. Two hundred years after Domitian, he had to encourage viticulture along the borders by introducing Pannonian grape varieties, since wine supply from the Venetiae region was extremely reduced due to the mismanagement of water in those territories, and the grape varieties from Campania and Latium struggled in the cold weather of the Danube and Rhine regions.

Also in Latium, growers struggled to late harvest their grapes to produce sweet wines, and therefore suffered competition from Greece, whose wines were very expensive, but demand was so high that they were sold anyway. The Latin Georgics (Cato, Pliny, Columella) report about an alternative way of producing sweet wines by concentrating must up to a quarter or a half of the original volume. This product was then added to fermenting wine must in various proportions (from 1/4 to 1/30).

Around the year 1000, Europe benefited from a warm climate that extended viticulture towards high latitudes, such as Scotland, and very high altitudes, up to 1200 m above sea level. This phase was called optimum climaticum and viticulture, together with olives, expanded within the alpine valleys and spread throughout continental Europe, thanks to religious institutions.

At the end of the fourteenth century, Europe had to face the first negative effects of a climatic phase called the ‘Little Ice Age’, which, with the big 1709 frost, destroyed most of the continental agriculture. This period officially ended in 1850, with the ‘Irish potato famine’.

Towards the end of the feudal system, the location of European vineyards underwent a drastic change: vines disappeared from England and from the internal alpine valleys. Poor climate conditions led to a lack of grain, and consequent famine. Black Death spread and wines were of such poor quality that they were unable to last until spring without becoming too acid. The nobles and higher clergy were not prepared to tolerate drinking low-quality wines, and they started to look again at eastern Mediterranean production. Thanks to the mercantile activity of the Republic of Venice, wines like Greek Malmsey, Vinsanto and Muscats spread throughout Italy and northern Europe. The huge commercial success of such wines encouraged the production of similar wines in many Italian locations and along the oriental Adriatic coast. This was helped by the Turkish conquest of Crete in 1564, because Venice was deprived of the vineyards yielding most of its Malmsey. However, the merchants in Venice were anxious not to lose such a precious market, so they encouraged the production of sweet and aromatic wines from any suitable grape variety in different locations, and traded
all these wines under the name of Malmsey. This is the first example in Europe of a famous varietal name being used for other varieties that had no genetic relationship. They were distinguished by their location of origin and by the peculiar features of the grape bunch. Their only common point was to yield a sweet, aromatic and alcoholic wine. This is also the first example of a grape variety named after a wine: usually, it happens the other way round. French and Italian agronomists between the sixteenth and eighteenth centuries suggested several techniques to improve late harvest even in unfavourable climatic conditions (such as stacking up whole bunches of grapes for several days to drain the must) or winemaking (like adding concentrated must).

This climatic change did not strike the southern regions of Italy, which became the most advocated areas for the production of sweet wines.

Large quantities of wine produced in the area of Santa Severa left the Tyrrenian coast from the harbour of Tropea. They were called Greek wines, and reached the markets of northern Europe, competing with the (sweet and round) Malmsey from Venice or the so-called strong wines from southern France (sweet, aromatic, alcoholic).

Calabria gained a key position in the trade of sweet and often aromatic wines in many northern Italian towns, both for their quality and for their competitive price compared to the wines from Greece (Candia) and Lebanon (Tyre). In fact, the latter were imported by the Venetian merchants and suffered from the so-called ‘revolution of freight charges’, which made it unprofitable to trade low-quality wines. As a consequence, low-quality wines lost their market share and many marginal production areas (in the mountains, far from harbours and cities) that had risen up during favourable climate conditions – when there was a demand for wine as it was perceived as a status symbol – were abandoned.

1.5 THE SWEET WINES OF CLASSICAL GREECE: GRAPE VARIETIES, TECHNIQUE AND PRODUCTION AREAS

In ancient times, people were particularly keen on sweet foods, even though at that time they were not easy to find, which is why sweet wines were considered the highest pleasure. Through the addition of dried grapes or by cooking must, producers could make sweet drinks by adding calcareous powder (obtained by crushing shells), or sea water. This lowered acidity, making the wine sweeter and less aggressive. The wines obtained by late-harvested grapes were called saprias oinos, while melilotes was a concentrated must with the addition of honey and salt. In spite of being very expensive, honey was the most popular sweetener, but a similar effect was obtained by concentrating must through heat. Adding sea water to honey (making a mixture called thalassomeli) was common in the preparation of the most famous sweet wines.

Discorides is the first author to whom we ascribe the distinction between Pramnios or Cretico wine, obtained by late-harvested grapes, and Siriaisos or Hepsema, mainly produced in Crete from cooked must.

The first evidence of the production of sweet wines in Greece is found in the poetry of Hesiod, who had worked as a farmer, and addressed himself to the people of his homeland: Boeotia.

In his masterpiece The Works and Days, in the section about autumn (609–614), he says, ‘But when Orion and Sirius are come into mid-heaven (towards mid-September), and rosy-fingered Dawn sees Arcturus, then cut off all the grape-clusters, Perses, and bring them
home. Show them to the sun ten days and ten nights: then cover them over for five, and on the sixth day draw off into vessels the gifts of joyful Dionysus’.

Greek and Byzantine literary sources quote many different grape varieties suitable for making sweet wines from raisins. Some of these varieties called Xenologos (the etymology of the name recalls the way they were used in viticulture) were used only for drying. In fact, such wines as Tharrupia, Buconiates, Capnios and Sirpula refer respectively to tharrupio, the fruit-drying rack made of canes; buconiates, the pine cone from where the resin for conservation was extracted; capnios, the cooking technique that gave the smoky flavour; and sirpula, the operation of twisting the bunch on the plant to make it dry better.

Pramnio (Iliad, XI, 631; Odyssey X, 225): this grape variety was grown in Izmir, Lesbos and Icarus to produce generous sweet wines. The wine was obtained by fermenting a must particularly rich in sugar, as it drained from over-ripe grapes that were stacked up.

Biblino: from Byblos, in Phoenicia. This grape variety was grown in Thrace and Naxos (Sicily). It was the wine for feasts, the most famous among sweet wines (Idylls by Theocritus XIV, 4). Hesiod (Works and Days, 609–614) forecast its late harvest. It gave a black wine, intense, for long ageing; it is the wine Ulysses offered to Polyphemus. The grape grown in Chios belongs to the same varietal group.

This is how Hesiod describes it (Works and Days, 590–596): ‘But at that time let me have a shady rock and wine of Biblis / then also let me drink bright wine, sitting in the shade / from the everflowing spring which pours down unfouled thrice pour an offering of water, but make a fourth libation of wine’.

Phanaios: highly appreciated by Virgil, who called it the king of wines (Georgics, II, 98).

Psithia: quoted since the fourth century BC with the name of anaxandrides (grapes produced by vines trained on trees). Columella calls it ‘species uvae graculae’ and writes about its low productivity and its feature of producing sweet wines after the grapes dry. Virgil highlights its aptitude for the production of sweet good-quality cooked wines and the particular taste of grapes (Georgics, II, 93). He calls it psizio, and another wine, which was black in colour, he calls melampsizio.

Leucothrakia: a sweet white from Thrace, made from dry grapes and bound to the fame of Santorini.

Methymnacea: from Lesbos. Virgil calls its wine rex vinorum.

Sticula: appreciated by Pliny (XIV, 9, 11) as a long-lasting grape, but also dulci vino apta.

Samia: from the island of Samos, quoted by many Greek and Byzantine authors, it produced the sweet wine anthosmias through a peculiar technique: the juice, drained from over-ripe grapes, was mixed with must obtained partially by pressing and partially by boiling. Ash and lime were added too.

Mandes: from the Falcidia region, it produced a wine from over-ripe grapes called ‘god’s pee’.

Winds played an important role in the choice of the most suitable locations for the production of sweet wines from over-ripe grapes. Athenaeus (I, 26c) stated that sweet high-quality Falernian wine was obtained when, during the final phase of maturation, a southern wind blew (called ‘autumn wind’ in the Vallese). Martial (III, 58, 6f) quotes several locations uphill where very dry weather conditions allowed harvesting in November, during the first snows. These grapes were called seras uvas. Also sweet wines from Macedon were obtained by drying grapes cultivated on the south-facing slopes of the mountains (sta prossilia) at altitudes of about 600–700 m above sea level; such grapes were able to dry not because of the heat, but because of the long, dry autumns. Usually, a mix of white and black grapes was used, and the best listò krai (Vinsanto) was called eliaumènon.
12 Sweet, Reinforced and Fortified Wines

1.6 THE GREEK SYMPOSIUM AND THE ETRUSCAN CONTINUERS

When one thinks of Classical Greece, images of vascular paintings can quickly come to mind. A deeper analysis of such representations highlights the exclusive function of containing wine that such pottery had, between the sixth and fourth centuries BC (Figure 1.1).

The literary sources and the images on the various pieces of pottery reveal how such consumption was the central element of socialization in the various Hellenic communities. Wine was the gathering point of a specific conviviality, which was different from banquets (deipnon), where wine was simply complementary to food.

Such activity was called symposion, and it is conceptually close to a private feast, a sort of drinking-party. It was also very different from a Roman convivium, more similar to a deipnon. The Romans called the symposium a comissatio or compotatio, a word of Greek origin.

The Greek word symposium actually means ‘drinking together’ (syn-potein). It was a social event with social drinking at its centre. Everything followed set rules: type, theme and manner of toasts. The main prescriptions though concerned the ritual of mixing wine and water in the crater, because every mixture had a different effect on the guests according to the different phases of their inebriation – which all guests had to reach and which was one of the main values of a symposium: the equality of the prefix syn which constitutes the word ‘symposium’ (Catoni, 2010).

In his Convivial Questions, Plutarch says that Lathikedès is the perfect wine–water mixture in the proportions of about 3 : 2.

Athenaeus, in the Deipnosophists (XI, 462c–f) (a banquet of philosophers), in the elegy of Xenophon, describes the celebration of a symposium: ‘For now the floor and all men’s

Figure 1.1 An image of a symposium from a Greek Attic red-figure cup attributed to the painter Douris (ca 500 to 460 BC). © The Trustees of the British Museum. All rights reserved. [For a colour version of this figure, please see the colour plate section.]
hands are clean, and all the cups, and since the feasters’ brows are wreathed with garlands, while the slaves around bring fragrant perfume in well-suited dishes; and in the middle stands the joyful bowl, and wine’s at hand, which never deserts the guests who know its worth, in earthen jars well kept, well flavoured, fragrant with the sweet fresh flowers; and in the midst the frankincense sends forth its holy perfume; and the water’s cold, and sweet, and pure’.

The ceremonial of the symposium was strictly connected to the myth of Dionysus: the god who taught men how to grow vines, produce wines and especially in what proportions wine had to be mixed with water. The constant practice of late harvest and of drying grapes in Thrace, homeland of Dionysus, with the consequent high alcohol volume, were the original reasons why it was forbidden to drink pure wine in Greece: it was considered a dangerous drink, similar to a drug. The wine for the symposium was sweet and alcoholic, because only a concentrated wine could be mixed with water. Moreover, it was popular to mix wine with grated cheese, usually goat cheese (this reminds us of the present-day habit of drinking sweet wines with strong cheese), and this could be done only with sweet wines, or wines that were sweetened through the addition of honey, as we can read in The Iliad (IX, 638): ‘In this (cup) the woman, as fair as a goddess, mixed them a mess with Pramnian wine; she grated goat’s milk cheese into it with a bronze grater, threw in a handful of white barley-meal’.

This drink called kykèon (from kikòn, to mix) is the same as that prepared by the slave Ecamede for Nestor and the injured Machaon, and that Circe offered to the Achaeans before transforming them into pigs (Odyssey, XI).

Outside Greece, only the Etruscans and a few communities around the areas of Apulia and Lucania can be considered as continuers of the symposium tradition. This is shown by the many grave relics of the various ages. A few variations were introduced, like the game kottabos and the presence of women.

In Taranto, one of the Magna Greece cities where the tradition of the symposium was particularly strong, wine was described as ‘light, lacking in violence, fresh, sweet and easy to digest’. Near the agora of Sibari, in Metaponto, a big kantharos was found. Around its edge was the following inscription: ‘to dispense nectar for the mortals to drink’. This is evidence of the diffusion of the symposium in Magna Greece during an early phase of colonialism. The preparation techniques of sweet wines were also adopted in the colonies; the most ancient trace inItalic is a wall painting on a guttus from the second half of the fifth century BC from Sicily; it is interpreted as vinum defructum, cooked wine.

The wine that was mainly used in these Magna Greece cities came from Lagaria, an Ionic town founded by Epeo, the legendary builder of the Trojan horse. Strabo, in the second half of the first century BC, calls such wine sweet (glykûs) and smooth (apalûs).

Another important occasion for drinking sweet wines in Classical Greece was when people went to sanctuaries to consult the oracles. Along the route there were many places where pilgrims could stop and rest. Such hostels usually offered sweet wines (glukûs). The verb glukizen means ‘to offer sweet wines’ and glukimus ‘place where sweet wine and food are served’. The words glukûs and glukimos often appear in inscriptions about banquets, meaning a moment just before dinner when an aperitif was served.

1.7 PRODUCTION AND CONSUMPTION OF SWEET WINES IN ANCIENT ROME

In ancient Rome wine was a way to communicate; it was synonymous with feasting, conviviality and pleasure, during great banquets as well as at the tables of the poor. Wine was always served; this is evidenced by literary citations, still-life wall paintings, sculptures, Bacchic
Sweet, Reinforced and Fortified Wines

low reliefs, and gravestones representing tools for cultivation, for building barrels, and trade scenes. For the Romans, good wine was a synonym of old wine. Sweet wines kept better than dry ones, even though interrupting fermentation was really hard at that time.

The Latin Georgics often quote wine but without describing its organoleptic features. They are precise about the places of origin (Falerno, Retico, Massico, etc.) and about the grape varieties (aminee, elvol, rodie, dattili, eugenie, graecula, etc). Pliny praises the wine from Lebanon, which ‘had the perfume of incense’: it was a sweet wine produced with raisins and slowly cooked must.

Martial, who is ruthlessly ironical about Rome in the first century, does not forget to mention wine.

There are 90 topoi where wine is precisely described, amongst which we have the wines sweetened with honey that were harvested in Crasso, and those with the addition of resin from Vienne.

But which wines did the Romans actually drink? Wines for the upper classes were generally aged (vinum vetus, sequentis gustus), while among those drunk by the farmers were posca, a mixture of water and vinegar, and lora, a very light wine obtained by rinsing pomace with water after all the must had been pressed out (this was still done in Italian rural areas until about the second world war). The latter was the drink for the slaves.

Another rather poor wine product was vappa, obtained by refermenting a wine with residual sugar during the summer.

Columella stated (XII, 6, 9, 2) that the best wines were those which kept without any special treatment, while the lowest quality wines were those harvested either from vines that were far too young, or from unfavourable terroir; these needed the addition of concentrated must or resin.

Columella, just like Hesiod, provides us with precise instructions about how to make passum (from sun-dried grapes) and the so-called second passum; these are the most detailed enological indications from the period.

The technique described by Pliny (Naturalis Historia, 8, 23) is particularly interesting, since it differs from those of both Hesiod and Columella. For some famous wines, such as those from Cos, Lesbos and Clazomene, he introduces, before fermentation, maceration of the sun-dried grapes in a mixture of sea water and cooked must which had to boil for one night and one day. This prevented the action of acetic bacteria and slowed down yeasts, in order to obtain a wine higher in sugar.

The best mix though was of old Falernian wine, which had a bitter character, with Greek honey (vinum melle conditio).

The diffusion of must enrichment techniques (by adding honey or by heating the must itself) was also the result of Roman military expansion throughout Europe, which carried the wine culture with it.

Cato shows no preferences. Two days after fermentation started, defructum
was poured into the *dolia* in the proportion of 1 : 48, in order to increase the alcohol content.

There were two types of *defructum*, a simple one with chalk and salt, which preserved and stabilized wines, and a spicy one (mainly used to produce a medicine), to which resin was added together with spikenard, cinnamon, iris, saffron.

Cato (*De Agri Cultura* XXIV, 1) gives us a recipe for Greek wine, ‘gather carefully well-ripened Apician grapes, and add to the *culleus* of must two *quadrantals* of old sea-water, or a *modius* of pure salt. If the latter is used, suspend it in a basket and let it dissolve in the must. If you wish to make a straw-coloured wine, take equal parts of yellow and Apician wine and add a thirtieth part of old boiled wine. Add a thirtieth part of concentrated must to any kind of blended wine’. The author also describes how sweet wine was made in Cos and Chios: over-ripe grapes were put in sea water for three days before pressing.

Sometimes, to enhance the drying process on the plant, the bunch was twisted (Palladius, XII, 22) or the branch was cut (Pliny, XIV, 89).

Apicius, a famous cookery expert in ancient Rome, gives his own recipe for producing a sweet wine to use as an ingredient for very elaborated dishes (*De re coquinaria*, I, I, 1): mix 15 parts of honey with about one litre of wine into a bronze jar and let them cook together. When it starts to boil, remove from fire and let it cool down. Repeat this three times. Add four ounces of grained pepper, three *scrupoli* (24 parts of an ounce) of resin, a *drama* of spikenard and saffron, five toasted date stones and date pulp soaked in wine. Add 18 *sestori* of diluted wine, heated on the fire.

In Italy, the affirmation of quality wines linked to their place of origin (especially in Campania, with Falerno) started late, around the second century AD.

A quality wine was usually a 5- to 25-year-old white wine, sweet or fortified. Horace is the only author who, towards the end of the Republic and the beginning of the Empire, senses the change in the aristocracy’s tastes for styles of wine. In his *Satires* and *Odes*, Greek wines are hardly mentioned, with the exception of the wine from Chios. We have many wines from Campania and Latium, such as Cecubo, Massico and Falerno. This is very important, because it shows that Roman taste was shifting from sweet to dry wines. Moreover, wine was no longer drunk for ritual purposes; it became a complement to food. Late harvests were gradually abandoned to produce less sugary and more acid wines.

Sweet wines were still produced during the expansion of the Empire, and reached places far away from their production areas; this is demonstrated by the many findings of coeval jars, particularly those of the Dressel series, which take the place of Greek and Etruscan jars.

We have an interesting report by Diodorus Siculus, who describes the Gauls as heavy drinkers who did not mix wine with water. They made the fortune of the Roman merchants, as they would pay the highest prices to have the sweet Roman wine. In Europe, the sweet taste of wine became a synonym for quality. Pliny the Elder reminds us that the Gauls quickly picked up the art of winemaking from the Roman legionaries, although they used different varieties (*allobrogica, biturica, raetica, carbunica*, etc). Moreover, they produced wines similar to the Greek and Latin *passum*: sweet wines that could be kept in barrels of circled wood (a novelty at that time).

Jars are still used in the trade of wines from Provence which, during the second to third centuries AD were counterfeited using Italian names, such as *amienum*, a wine from a Greek vine which was popular in Campania, *passum*, from dried grapes, and *mulsum*, a wine with the addition of honey.

Columella was born in Cadiz, in Andalusia, called Betica at that time. There they produced heated concentrated musts similar to *defructum* and *sapa*. They were used to improve
sweet, reinforced and fortified wines

low-quality wines from Rome, instead of using honey, which was more expensive. The phenomenon became so big, that some merchants put the statement ‘sine defrito’ on their jars, to underline that the wine was of high quality.

During the Imperial Age, the Greek merchants brought to Rome wine from the oriental Mediterranean, but they no longer used Cos or Rhodes jars (as in the past), as they were a synonym for low-quality, counterfeited wines. Dressel 2/4 were used instead, and they were produced where the wine was made. They contained a passum wine, like the one from Crete. It was the best known; it had an aroma of Muscat, as it was obtained from late-harvested bunches that were twisted on the plant, in order to enhance the loss of water from the grapes without spoiling the aroma characteristics.

Consumption of wine in ancient Rome was prohibited to women. A husband could control this by kissing his wife. Wine was associated with betrayal; it was not Catulus’ ‘basia’ (Da mihi basia mille, deinde centum . . . ), the love kiss, but the ‘osculu’ (from os, mouth) to control the breath. The only alcoholic drinks that were permitted were sweet ones. Actually, these were not vina (wines obtained by fermenting grapes) but dulcia: a mix of cooked must and water, often with the addition of myrrh, as Pliny makes clear (Naturalis Historia, XIV, 83): ‘medium inter dulcis vinumque est quod graeci aigleucos vocant hoc est sempre mustum’. Women were allowed to drink sweet wines that tasted more like honey and milk drinks (during the ‘Parilia’ a mixture of honey and milk was drunk) and these drinks were concocted as opposed to wine. This prohibition disappeared towards the second century BC.

1.8 THE ECONOMIC AND SOCIAL ROLE OF SWEET WINES IN THE MIDDLE AGES

Between the fourteenth and sixteenth centuries, people were particularly concerned to highlight the lifestyle differences between the social groups. Foods, but particularly wines, were used by the upper classes as a status symbol; every social class had its own style of wine.

These included the sweet wines from Cyprus, the so-called Greek wines coming from the different routes of the crusades (traded by the Venetians, who at the same time were transporting the soldiers during the Fourth Crusade), or wines like Grenache, Garnacha, or Vernacce, which is both a grape variety and a Mediterranean style of wine. All these were sweet, fortified, very alcoholic and were drunk only by the upper classes.

This is a period when white wines become more fashionable; the bread for nobles had to be white, made from wheat flower, whilst that for farmers and slaves was black, made from rye. In the same way, black wine was for the ‘working classes’ while the upper classes, who did not need to work, would drink whites and clarets. This was also due to the effect of the Little Ice Age, when red berries struggled to ripen and the white and amber ‘Greek wines’ arrived in Europe.

White wines were dominant during the Middle Ages, and they were an imitation of those coming from Greece.

Cooked medieval wines were ‘strained, smelly, adulterated’, obtained by cooking wine or must in order to make them last longer (a real problem at that time). Some Byzantine writings provide us with precise instructions on how this was done. The most popular technique was to cook must, reducing it by a quarter; wine would then last up to 3–4 years. If reduction was higher than that, up to three-quarters, the result was called sapa; it was no longer a wine, but a food dressing.
All these wines were still called by their Latin names (defructum, passum, carenum, sapa), although vernacular terms started to appeared, such as defervendo instead of defructum, defraudato, meaning adulterated, fake, not natural; sapa was called vin sireo (sireum) and passum became vin passo and was a name for any sweet wine. Each cellar, especially in central Italy, had a room for heating wines; the average capacity was of about 3 hL: ‘pulcra de ramine apta ad coquendum vinum’.

Given their high alcohol content and pleasant flavour, which tempted people to exceed, doctors and medieval moralists advised people to drink only little quantities on particular occasions, such as feasts and weddings, or for medical reasons.

Wines were then classified in opposite categories: on one side the sour/bitter wines low in alcohol, and on the other side the sweet and alcoholic ones.

Medieval and Renaissance cookery, which were popular at all levels of society, focused not so much on food matching but rather on the contrast between ‘cold’ and ‘warm’ foods and drinks, in order to reach a ‘temperate’ balance. Sweet wines were considered ‘warm’.

In the Middle Ages, what ‘tasted good’ was considered to be healthy: a good wine would certainly have a good effect. Hence, a wine was chosen depending on its flavour, which was a guarantee of health.

‘Sweet’ was the most popular ‘warm’ flavour, and it was often contrasted to sour (like vinegar), considered cold (Bartolomeo Anglicus, *De proprietatibus rerum*, 1230–1240). People who were recovering from an illness were advised to drink sweet, clear, red wine. It had to be drunk in moderation, as it had good nutrients.

According to the cold–warm theory, there were two other elements to be considered in the choice of the style of a wine: the season and the geographical location of consumption. Pope Paul III Farnese was very scrupulous in following such prescription (as his cellar man Sante Lancerio reports in 1549): cold wines (low in alcohol) were consumed in the summer and sweet, alcoholic (warm) wines were chosen in winter. Sweet wines though were not recommended for popes, since they were associated with lust.

This distinction in the consumption of wine becomes an actual literary topos in Florence, during the second half of the fourteenth century; authors, to highlight moral or comical situations, emphasized the warming properties of sweet wines.

In these stories we find Malmsey, Romania, Vinsanto, Vernaccia of Coniglia, and they were consumed on solemn occasions, such as imperial visits or weddings (even the poor ones, as sweet wine was a symbol of sexuality, as in Boccaccio’s *The Decameron*). For the latter reason, pilgrims were discouraged from drinking them along their journey to the Holy Land: they were easy to find on the way, but they stimulated lust. This is also the reason why they were always included in recipes for helping conception, together with pork, pepper and ginger.

The carnival songs of the clerici vagantes during the late Middle Ages praised sweet wines, as we read in this line by Morando from Padua: ‘Vinum dulce, gloriosum/pingue facit ed carsosum/atque pectus aferit . . .’.

*Ippocrasso* was a special medieval wine, typically on the tables of the upper classes up to the seventeenth century, when it was substituted by brandy. Because of its warming and digestive properties, it was served at the end of the meal with desserts. It was made with high quality red wine, spices and sugar.

The popularity of sweet wines encouraged market growth and many wines were traded under the old popular Roman names. In Lombardy there was a sweet wine called Falerno (‘vinum phalernum suavissimum, et pulcrum . . .’), obtained by mixing an old wine with sweet must and fresh grapes.
1.9 VINSANTO: A METAPHOR FOR MEDIEVAL SWEET WINES

Vinsanto was the most popular and copied wine of the Italian Middle Ages. While Malmsey was the favourite among young men from the upper classes, Vinsanto was popular among the high clergy. The origin of the name is unknown: it could come from xantos, yellow, because of its colour, or from its liturgical use in the past Byzantine age; or because of the period when the dried grapes were pressed: during Holy Week for the Vino Santo from the Trento area.

Santo could also refer to ‘pure wine’, as it was produced without any addition or correction. It is reported that the Greek patriarch Bessarion, during the council of Florence in 1349 said, ‘this pure wine must come from Xantos’, referring to the famous wines from dried grapes produced in Thrace, hence the name ‘santo’.

A more charming etymology though links the name to the fact that in the beginning of the Oriental Churches, ‘saint’ was used to define someone who was different, and this could also be said of a wine produced from dried grapes: it was rare, and therefore different from other wines. The Hebrew quades, saint, from which the word jahweh, god, originated comes from the root qd(d), meaning ‘to split’, ‘to be different’, and it is connected to the Akkadian quaddusu, ‘to be shiny’, as a distinctive sign of holiness (Scienza, 2006).

A more prosaic origin of the name could be found on the island of Santorini, in the Cyclades, known as the Venetian Stone Fleet as they were on the route to Crete and Constantinople. During the Classical Age it was called Thera; after the First Crusade in 1204 it was renamed Santorini because of the church of St Irene or St Erini. Along with Malmsey from Crete, Ariousios from Chios and Commandaria from Cyprus, Santorini’s Vinsanto was generally called Greek wine and was placed within the category of sweet wines able to travel long distances.

The first descriptions of the organoleptic features of this wine are rather late compared to its fame, as it is reported by Baron J. Pitton de Tournefort towards the end of 1700: the wine was used only by the Orthodox Church of the Black Sea and of southern Russia.

1.10 THE ‘REVOLUTION’ OF DRINKS AND THE DEVELOPMENT OF SWEET WINES IN CONTINENTAL AND ATLANTIC EUROPE

With the so-called ‘revolution’ of drinks at the end of the seventeenth century, the consumption of wines, spirits and the diffusion of non-alcoholic drinks like coffee, tea and chocolate underwent a deep transformation, leading to the recession of some of the main wine-producing areas in France, such as Bordeaux, and the rise of others like Cahors, which produced a wine richer in colour compared to claret, which was losing popularity among English drinkers.

At the same time, viticulture began to develop in some areas that produced poor wines, but had a vocation for spirits (Cognac and Armagnac), and which benefited from their location close to Atlantic harbours on the routes to the northern countries (Unwin, 1993).

The real novelty though was the creation of new wines such as Champagne and Port. On one side, consumers were asking for new products; on the other, merchants were trying to improve conservation techniques for wines that had to travel in increasing quantity, in order
Sweet Wines: The Essence of European Civilization

... to satisfy a growing market. From the fifteenth century, there was a series of experiments to improve wine resistance: bigger barrels were better than small ones to prevent the wine from becoming vinegar, adding cooked wine helped as well. The wines produced in Jerez start to be called sherris-sack. Such wines had better oxygen stability and developed a sort of yeast (flor yeast) veil on the surface, which prevented wine from alterations. In the Porto region, because of custom’s restrictions imposed by the French government in 1700, the English developed the production of wines suitable for transport and bottling, with a high sugar level, and by adding spirit to fermenting must.

The innovation of bottles improved wine ageing and resistance to transport, and also made it possible to stock wine and control its evolution over time. It also meant that merchants could manage their stocks better, and did not have to lower prices when wine began to lose stability.

Once again, the evolution of a product coincided with availability of the financial resources: bottled wines became a status symbol. The development of glassmaking in Murano made available different tools for serving wine: consumers could actually appreciate the appearance of what they were drinking, which was not possible with pewter, tin or silver cups. This might seem obvious to us, but it was a huge cultural innovation at that time; this is evident in Veronese’s painting Wedding at Cana in 1563. Wines, especially sweet ones, began to be served in transparent jugs called ‘Venice-style jugs’. Therefore, wines had to be clear, and enological techniques had to improve.

The sweet wines from the Atlantic coast start to be produced towards the end of the seventeenth century due to a strong Dutch demand in the northern markets. The Thirty Years War (1618–1648) between Catholics and Protestants was ending, and the middle classes were going through the so-called ‘revolution’ of drinks.

It was a period of great innovations in the world of wines, such as the first adoption of a brand by a single winery (Château Haut-Brion) in England, the first botrytized wines called rotten wines or vins pourris, the first fortification of must with spirit and the production of the first thick bottle.

In 1648, Holland became an independent country (under the Treaty of Westphalia), and its economy was mainly based on trade. The Dutch founded colonies in America (New Amsterdam), South Africa, India, and they were very competitive, especially against English ships.

They were restricted from sailing in the Mediterranean, which was controlled by the powerful Venetian Fleet and their Gascon allies. The market of sweet wines though was too important; therefore they started to look at alternative production areas. Bordeaux was their choice, as it was close to the area of Charente, where they purchased spirits, and sweet wines were not produced there as the environment was not suitable for the accumulation of sugar in the berries. The Dutch encouraged the growers to change their farming techniques and grape varieties, in order to obtain sweeter musts through late harvests. Moreover, they taught them about the use of sulphur dioxide (SO₂) in fermentation (allumettes hollandaise or sulfur wicks), which the Dutch used to sanitize barrels and clarify wines before bottling. They used various filtration techniques and cold stabilization to get rid of the yeasts (for instance, they invented the so-called Dutch filter), but because of difficulties in controlling fermentation, wines came out in all sorts of styles (off-dry, sweet, etc.) and they were not always appreciated by the consumers. The addition of cane sugar and spirit helped to standardize the taste, in order to meet the demands of different markets. Because of the war with France, the Dutch and English did not restrict their focus to the area of Sauternes but widened their interests towards the Atlantic coasts of Spain and Portugal. During the Middle Ages, these wines...
Sweet, Reinforced and Fortified Wines

were not so popular; they did not travel well because they were low in alcohol and tannins. The main innovation of the Dutch was the introduction of fortification through spirits. This enabled the production of botrytized wines also in Germany (the Rhine region) from 1687 and Anjou, from the Chenin variety, from 1782.

1.10.1 Sauternes wines

Starting in 1774 in the Dordogne Valley, the Dutch forced the growers to late harvest the grapes, in order to allow noble rot (or *pourriture noble*) to attack the berries and improve sugar concentration. The action of the fungus, enhanced by favourable weather conditions (hot sun during the day, humidity at night and soils with little nitrogen and water) also produced particular flavours that were highly appreciated. Moreover, it produced an antibiotic called botryticine, a yeast inhibitor that, in combination with SO₂, allowed the wine to remain sweet. Three grape varieties were chosen: Semillon, Sauvignon and Muscadelle (or Muscat fou) both for their aroma characteristics and because the skin of the berries was ideal for noble rot.

1.10.2 Malaga wines

Wines from Malaga began to attract the interest of Dutch, English and German merchants towards the end of the seventeenth century, as competition against Venetian leadership in the trade of eastern Mediterranean sweet wines. This wine was traded for the first time in 1618 under the name of Mountain wine, and the most appreciated style was *Pedro Ximen puro y legitimo*. Grapes dried in the sun for a few days (*asoleo*), were then crushed and pressed with a so-called ‘roman’ press. Next the must was poured into big earthenware jars (*tinajas*) and 2–3% of concentrated must was added. After fermentation, wine was transferred to wooden barrels and underwent egg-white fining. These wines were often sweetened through the addition of *vino tierno*, a wine from grapes grown on the hottest slopes and harvested in August, dried for one week, pressed and fermented. The wine was generous, strong, clear, sweet and excellent.

1.10.3 Wines from the Canary Islands and Madeira

The wines from the Canaries, even though the Spanish people planted them at the end of the fifteenth century with Malmsey from Crete, also owe their success to the English who, during the Seven Years War, bought their wine and called it ‘fake Madeira’. The real commercial success on the English market, dominated by Venetian Malmseys, came during the sixteenth and seventeenth centuries. Its fortune declined over the following century though, due to the expansion of Port and Madeira.

1.10.4 Wines from Catalonia

Due to the development of the harbour of Vernazza in Liguria, the production of Vernaccia spread in Catalonia. From the fifteenth century, this style of wine is named after its birthplace, and became popular in various European regions. The main variety is Garnacha, or Grenache (Garnatxa) and the production technique involved fermentation of over-ripe grapes to obtain very sweet and alcoholic wines, capable of ageing and resistant to transport.
1.10.5 Wines from Tokaj

Wines from Tokaj were very successful at the Austrian Court during the eighteenth century, and this enhanced their fame. The earliest origins of viticulture in this territory are ascribed to Italian growers who planted the first vineyards on the volcanic and limestone hills of the Bodrog and Tiska valleys.

Tokaji wine is mentioned for the first time at the end of the fifteenth century, and it was the first European wine to be produced by botrytized grapes when Hungary was under Turkish rule.

An anecdote implies that it was not a deliberate choice: because the Turks attacked Tokaj, the harvest was delayed and the grapes were affected by noble rot. In 1641, Hungary was still under the Ottoman domain when the first law was issued to rule the Tokaj wine. This law dictated yields and sugar levels, in order to enable the natural production of sweet wine. In 1720 we have the first laws regarding harvesting a single vineyard several times, according to the levels of noble rot on the berries.

1.11 DEMOCRATIZATION OF WINE IN THE SEVENTEENTH CENTURY EUROPE: DIFFUSION OF FORTIFIED WINES

Few people know that Venice lost the northern Europe markets for sweet wines just before the creation of 'great wines' from blends of bulk wine coming from different places. Merchants misjudged the role that 'wine spirit' could have played in the creation of fortified wines or mute musts (which would have been far cheaper compared to the ones imported from the Mediterranean). Moreover, Venice made a second big mistake: on the English market, merchants tried to compete with Port by imitating absinth, which was fashionable in France. Paradoxically, switching from Malmsey to Vermouth turned out to be a big mistake: the consumer perceived the latter as an adulteration of wine. For over a hundred years, the market fell into the hands of the Dutch, who had an extremely powerful fleet. Later, leadership passed to the English merchants, who by their protectionist policies forced French wines (such as the fortified Muscats from the Midi) to be replaced by Spanish and Portuguese wines. At the same time, the progress of chemistry and microbiology led to the improvement of enological techniques. Meanwhile the market was shifting towards clarets and drinks other than wine, such as tea, coffee and chocolate.

1.11.1 The wines from Porto

Port has been known on the English market since the fifteenth century. The Dutch innovations led to the improvement of biological stability, while wine started to be fortified and transported in barrels around the seventeenth century; although it was only towards the end of the eighteenth century that Port started to be commercialized in bottles. During this period, production areas started to be regulated by law, through a selection of the most recommended sites. The 1820 vintage was particularly good, and the wine remained sweeter. Consumers particularly appreciated this style; this is why the addition of spirit was shifted back to the middle of fermentation. This is how the production of modern Port was codified: a quarter of spirit in four parts of must, added when fermentation is at three-quarters of the process.
1.11.2 Fortified wines from Andalusia

The origin of Jerez wine (sherries) is similar to that of Port; it goes back to the seventeenth century, through the action of the Dutch and English, during the wars against France. It was an ordinary white wine with the addition of alcohol for travelling. Towards the end of 1700, protection rules were issued concerning the choice of grape varieties, soils (according to limestone content), winemaking and ageing practices, in order to obtain different styles with very different sugar levels.

1.12 WHEN SWEET WINE IS A REVOLUTION: THE VENETIAN DREAM OF PRODUCING AN ETERNAL WINE

Between the twelfth and eighteenth centuries, Venice was the principal Italian centre for European trade and consumption of wine. Fortified wines were particularly popular, together with Malmseys aimed at a particular fragment of the market: consumers who wanted wines to drink away from meals or with marzipan desserts or biscuits (this ritual traditionally opened each official dinner of the Republic).

According to Greek-Byzantine ritual, which influenced most of the Venetian food habits, such fortified wines were normally consumed after the addition of water (from one third to a half) according to the concentration of sugar and the presence of resin (if they came from Cyprus). The wines came from several locations in the Mediterranean: the Aegean Islands (Santorini, Samos) and the Ionian islands (Corfu, Zakinthos, Cefalonia), as we learn from Customs’ documentation where import duties were registered.

Competition among wine merchants from the different Italian maritime republics was very strong. It concerned sweet, aromatic and alcoholic wines produced in the oriental part of the Mediterranean (Malmsey, Vinsanto), and mainly traded by Venice and partly by Genoa (Vernaccia ligure) on the Anglo-Saxon market. The republics also traded Atlantic and German botrytized wines on the rich northern European markets. The Dutch, who were restricted from sailing the Mediterranean, had previously diffused such wines.

Since the fourteenth century, merchants had been seeking innovations in order to exploit the market of sweet alcoholic wines. The aim was not to improve the intrinsic qualities of a product; progress was instead led by the need to be able to adapt to unexpected circumstances that might force a change in choices. These choices were not only represented by winemaking techniques to improve longevity, but they also implied a move towards selecting early and cold-resistant grape varieties and growing areas.

So what were these circumstances at the end of 1300? The climate was changing and Europe was about to face a long, challenging period in this respect. Towards the end of 1700, European agriculture – which had not changed since the Roman Empire – became dramatically different. The quality of wines dropped because grapes struggled to ripen, and therefore the upper clergy and European aristocracy started to look at the sweet and alcoholic wines of the eastern Mediterranean, thanks to the clever intuition of the Venetian merchants who had occupied all the Greek and Turkish harbours while transporting the crusaders to the Holy Land during the Fourth Crusade.

The Venetians did not simply bring the wines into Venice and then ship them straight to northern Europe, though; they mastered the art of blending, in order to meet the tastes
and budgets of the different markets. There was an expression ‘alla moda di Venezia’ which referred to the practice of blending wines of different vintages, in order to obtain a standard product from wines of different origins and winemaking techniques. This was done in no other place in Europe.

The Turkish conquest of Crete in 1564 forced the Venetians to shift production of Malmsey to closer locations, along the two sides of the Adriatic fjord. The innovation was not so much in the location of vines, but more in an attempt to imitate the style of a wine that was successful on the market. This practice is a constant in the history of all great wines.

The need for a wine that tasted like Malmsey and Vinsanto for the Venice trade, encouraged the production of such wines throughout central and northern Italy; through the use of the widest range of grape varieties, all sharing the common features of a thick skin and a cluster that did not fear withering. However, climate conditions during the Little Ice Age made it more difficult to dry the grapes outdoors, and so they were put in warehouses or hung for 3–4 months, according to the style of wine. This is how the Tuscan Vinsanto was obtained, and also the Vino Santo from Trent, the white and red Recioto, Amarone, Torcolato and many others, which are the expression of the different local cultures.

In the western part of the Mediterranean, which was not on the Venetian trade routes, people started to produce wines similar to Malmsey or Vinsanto from different grape varieties and from the most varied winemaking techniques, which had little to do with drying grapes (Botrytis, cooked must, fortification, etc.).

### 1.13 Wine Appellations: A Way to Fight Fraud and Privilege

Towards the end of the eighteenth century, the diffusion of wine (especially sweet and fortified wine) led to several problems connected to the addition of chemicals or vegetal extracts in order to cover faults or to make it difficult to state the place of origin. In fact, it became popular to name a style of wine after the place where it was originally produced. This was very common for German champagne or Australian sherry. There is an interesting passage in the third chapter of Marx’ Capital. The author says that for fine wines, income is generated by a monopoly (connected to the rarity of the product or its origin) and by the juridical boundary of a territory, which enables the producers within a given area to manage the offer and price of a wine.

Even though Port was the first wine to be legally protected in 1675, the French were the first to conceive a way of controlling and protecting quality and origin. They focused not so much on delimiting a given location, but instead they stressed the fact that only a given terroir was able to impart a certain intrinsic quality that could not be added by any winemaking technique (an acquired quality). This distinction is fundamental for applying defence strategies during production and transformation.

In order to safeguard an intrinsic quality, a law can impose certain vineyard features (plantation density, varieties, training systems, yields, etc.); while the acquired quality is protected against sophistication (addition of water, control of dry extract, acetic acid, etc.). The first appellation was Chablis, in 1901. In Germany, addition of sugar was a main issue; this is why classification was not based on the production areas, but rather on the organoleptic features (sugar levels) of the finished product. The first law was instituted in 1879.
1.14 CONCLUSIONS: THE HERITAGE

The political and economical history of Greek Italy changed completely after the second Punic War: Magna Greece was ‘romanized’, with very few changes in wine production. Vineyards and varieties in southern Italy remained the same throughout the whole of the Middle Ages until the arrival of Phylloxera. Several native varieties introduced by the Greeks, such as Murgentino, Eugenia and Aminee spread throughout Campania, Latium and Etruria (Pliny, *Naturalis Historia*, XIV, 273).

A few winemaking techniques have survived to this century. Pliny (XIV, 82) and Columella (XII, 39, 1) describe how on several Mediterranean islands such as Santorini, Samos and Pantelleria, grapes were dried in the sun for about three weeks, then macerated with wine that had been produced a month earlier, in order to add sugar and aroma and improve stability. The Carthaginian author Magon reports about a similar technique, more suitable for the hot climates of northern Africa, which are similar to Pantelleria’s climate. Grapes had to be picked at a very late ripening stage, the best bunches had to be selected and grapes had to dry in the sun under a cane protection (against sun during the day, and humidity at night) becoming raisins. Raisins were then soaked in fresh must and were crushed together. The operation was repeated, and the two parts were fermented together for 20–30 days. In the Greek tradition which has passed down to us, preparation of sweet wines had to follow several rules: while there was no distinction about the colour of the grapes (Attiri, Assyrtico) used separately or mixed with Mavro Tragano or Mandilaria for the preparation of Santorini’s wines, grapes were classified according to their aromatic features. Muscat grapes from Samos or Malmsey were never mixed with neutral grapes. Hesiod (227, 607) talks of a wine produced in Syracuse where Muscat, Calabrese (which was considered a Red Muscat with a violet bouquet) and Vernaccia were blended in proportions of one third. This wine is still produced only from White Muscat and in the nineteenth century it was associated with the legendary wine ‘Pollio’ (from Pollio Argivo, a tyrant of Syracuse).

The Calabrian Greco di Bianco is produced from grapes that are dried according to a 2500-year-old technique: the same recipe that Hesiod gives for the wine of Taso, according to the *Geoponics*.

A very concentrated juice, with a honey texture, obtained by slow cooking called *carenum* can be recognized in the cooked wines from the Italian Marche region.

*Protropos* is a wine obtained by fermentation in ceramic containers, which are left in the sun for 40 days at the hottest period of the year. This way, the ageing process was accelerated and the wine underwent a sort of pasteurization. This technique is still used to produce the *rancio* wines in Roussillon, such as Banyuls and Maury.

Peculiar climatic conditions, besides the cultivation of Italian varieties, allowed the preservation of ancient Roman techniques for the production of sweet wines also in France and Switzerland.

There is a special wind phenomenon in the area of Gaillac, the so-called ‘marin’, a warm autumn wind that dries grapes in the canton of Wallis, and the ‘foehn’, a southern dry wind that allows Amigne to dry on the plant. Amigne is a reminder of the Roman occupation, as the name recalls the Aminee: the Arvine sounds similar to Elvola (Varro, I, 25; Pliny XIV, 46) and Rêze has a link with the Raetica that we find in Pliny (XIV, 80).

Over the last thousand years, Vinsanto and Malmsey have sadly become nothing more than generic sweet wines. This is due to communication and production strategies going back to the Venetian policy: an early example of globalization of the sweet wine market, where a
place of origin (such as Santorini) was simply a generic word for a style of wine with several features that the consumer could easily recognize. There was no real connection to the actual growing area. Many sweet wines from different regions in the world could end up the same way, gathered within an international taste where sensory descriptors are more about the drying techniques than the actual terroir features. In order to protect the fragile identity of sweet wines made from dried grapes, which are the true heritage of the very first viticulture, it is important to enhance the oldest grape varieties and to go back to the peculiarities of the enological tradition. Moreover, it is important to maintain the relationship of these varieties with their places of origin and with the peoples who invented them.

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