The historical relationship of elms and vines

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Abstract

In Spanish, the expression «You cannot ask an elm for pears» denotes something that is impossible. Although its origin is unknown, it can be dated back to the 1st century BC, when appeared the Latin maxim Pirum, non ulmum accedas, si cupias pira (You should go to a pear-tree for pears, not to an elm), a sentence from which we believe the Spanish saying comes. The objective of this paper is to show how the historical relationship of elms and vines can be related to these expressions, because elms did not give pears but, figuratively, did give grapes. The cultivation of vines was soon included among the domestic plants at the beginning of the Neolithic Age. During the Assyrian Empire (7th century BC), vines are represented growing up around pine-like trees. The first documentary evidence of the marriage between elms and vines is found in the Ancient Greece: a wine called Pteleaikós oinos is mentioned, which refers to the region where it was produced, Ptelea (Elm). During the Roman Ages, the cultivation of vines married to elms became more important as it is reflected in the treatises in agriculture. This technique was so common that it appears recurrently as a topic in Poetry and Drama. The classical books were copied during the Middle Ages, and only the Arabian agronomists in the Iberian Peninsula gave new evidence of the relationship between vines and elms in the 12th century. Some four hundred years later the use of elms as props for vines was rare in Spain and, although not to elms, the marriage of vines to trees lasted in the South of Spain until the 19th century. In Italy, elms and vines were even planted together in the 20th century, before the Dutch Elm Disease began to kill the plantations of trees and farmers were forced to replace them with poles.

Key words: history, elm cultivation, agriculture.

Resumen

Relaciones históricas entre olmos y vides

En castellano, la expresión «No se le puede pedir peras al olmo» indica algo imposible. A pesar de que su origen es desconocido, puede situarse en el siglo I A.C., cuando aparece la máxima latina Pirum, non ulmum accedas, si cupias pira (Al peral acude, no al olmo, si quieres peras), de la cual creemos que procede la expresión española. En este trabajo se pretende mostrar que la relación histórica de los olmos y las vides puede estar relacionada con estas expresiones en la medida en que los olmos no daban peras mas, en sentido figurado, daban uvas. La vid fue una de las primeras plantas cultivadas ya desde el comienzo del Neolítico. En el Imperio Asirio (s. VII A.C.), las vides aparecen representadas creciendo alrededor de árboles que se asemejan a pinos. La primera evidencia documental del maridaje de olmos y vides las encontramos en la Grecia Clásica, donde se menciona un vino llamado Pteleaikós oinos que hace referencia a la región donde se producía, Ptelea (Olmo). Durante la época Romana el cultivo de las vides maridadas a los olmos adquiere mayor importancia, como se refleja en los tratados de agricultura. La práctica fue tan común que aparece de modo recurrente como tópico en la literatura. Los textos clásicos son copiados durante la Edad Media, y sólo los agrónomos árabes de la península Ibérica proporcionan nuevas evidencias de la relación entre vides y olmos ya en el siglo XII. Cuatro siglos después la utilización de olmos como tutores de las vides era rara en España, pero el maridaje de las vides con árboles, aunque no olmos, duró en el Sur de España hasta el siglo XIX. Sin embargo en Italia olmos y vides se plantaban juntos incluso en el siglo XX, antes de que la grafiosis comenzara a matar las plantaciones de árboles y los agricultores se vieran obligados a sustituirlos por postes.

Palabras clave: historia, cultivo del olmo, agricultura.

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From Neolithic Era to the Assyrian Empire

The cultivation of vines (*Vitis vinifera* L.) dates from the beginnings of ancient agriculture during the Neolithic Age (Zohary and Hopf, 2000). The planted vines belong to the dioecious subspecies *Vitis vinifera* subsp. *sativa* (DC) Hegi. It seems that they were selected from the natural populations of the wild, monoecious subspecies *V. vinifera* subsp. *sylvestris* (Gmelin) Hegi in the region of South Caspian Sea and Southern coast of the Black Sea (Scossiroli, 1988). The wild vine is a climber that naturally grows covering trees in riparian forests, i.e. *Ulmus* (Ocete et al., 1999), and the first farmers might have imitated this natural growing habit when they decided to grow them near their settlements.

The origins of viticulture are based on the presence of yeast on the grapes that transforms sugar into alcohol during the fermentation process of wine. The drink became soon related to a particular religious conscience that grew from this region in the Middle East, and for this reason wine production reached both symbolic and economic importance (Unwin, 1991). Several data indicate that trees were used for vine prop- ping in very Ancient times. In The Epic of Gilgamesh, a Sumerian poem from the 2nd millennium BC, Gilgamesh approaches the *bejewelled shrubs* and he finds «The carnelian bears its fruit, And hung it is with godly vines.» (Temple, 1991), before visiting Siduri at the garden of gods. We find one artistic representation of the marriage between trees and vines as early as in the 7th century BC. In an Assyrian high relief, the king Ashurbanipal rests under vines full of grapes, which are growing up around pine-like trees (Fig. 1). The progressive influence of different religious aspects of these Mesopotamian cultures on the Eastern Mediterranean religions helped the expansion of viticulture westwards (Unwin, 2001), and with it the use of living trees in vineyards. New tree species were available in these Mediterranean regions, and the new farmers had the opportunity to select those which were more suitable for their lands and which gave the best by-products.

The Ancient Greece

The importance of vines and wine in Ancient Greek culture (1st millennium BC) is represented by

Dionysus, God of wine who was often seen wearing grapes over him:

*And so hail to you, Dionysus, god of abundant clusters!*

(Homeric Hymns 26 to Dionysus)

*Liknitos Dionysos, bearer of the vine, thee I invoke to bless these rites divine*

(Orphic Hymn 46 to Licnitus)

At the same time, elms were acquiring a symbolic value in the Greek tradition. In Homer’s Iliad (7th century BC), Andromache tells her husband Hector about his father Eëtion, King of Thebe, who was killed by Achilles:

*He slew Eëtion, yet he despoiled him not, for his soul had awe of that; but he burnt him in his armour, richly dight, and heaped over him a barrow; and all about were elm-trees planted by nymphs of the mountain, daughters of Zeus that beareth the aegis*

(Iliad, VI; Murray, 1965)

The fact that the elms where planted by the nymphs Oeads, daughters of Zeus, and around the tomb of a King, indicates their status as sacred trees. It is also deduced from the texts that the Greeks knew that the species could be easily planted, an quality that make elms suitable for cultivation with vines. Although ‘tre- evines’ (*âmpelos ânadendras*) are often mentioned in Greek literature since the 6th century BC (Hagenow, 1972), it is in the 3rd century BC that we find the relationship between elms and vines: Theocritus’ Idylls mentioned a wine called *Pteleaikós oinos*. That name...
refers to the region where it was produced, Ptelea (Elm), and Ptelea and Pteleon were frequent toponyms in Ephesus, Arcadia and Attica because vines were usually associated with elms (Hunter, 1999).

Elms, vines and the Romans

The Roman conception of life was more pragmatic than the more scientific Greek one. As a result, the production of wine increased because it gave good benefits to farmers.

Many Roman books on Agriculture have lasted to the present day. Cato’s De Agri Cultura (2nd Century BC) is the oldest known prose work written in Latin. Different authors (Brehaud, 1933; Sáez 1996) indicate that the importance given by Cato to vines and olives reflects the transition from subsistence agriculture, based on cereals, towards a more commercial agriculture, in which wine and olives played a significant role. In his oeuvre, Cato explains the way vines should be married to trees, and how both should be pruned:

Be sure to begin in good time to prune vines trained on trees and to layer vines.

Be sure to train vines upwards, as much as you can. The trees are to be pruned thus: the branches that you leave to be well separated; cut straight; do not leave too many. Vines should have good knots on each tree-branch. Take great care not to ‘precipitate’ the vine and not to tie it too tight. Be sure that trees are well married, and that vines are planted in sufficient numbers: where appropriate, detach vines entirely from the tree, layer to the ground, and separate from the stock two years later.

(De Agri Cultura 32; Dalby, 1998).

Although he did not indicate which species should be used, elms are cited many times in his book: they provide fodder for sheep and oxen (De Agri Cultura 5, 6, 17, 30 and 54) and how and where they can be transplanted is also indicated (De Agri Cultura 28 and 40).

The second Roman reference to the cultivation of elms is found in Varro’s De Re Rustica. Marcus Terentius Varro (116 BC-27 BC) was Roman senator and led Pompeian forces in the Iberian Peninsula during the civil war. In his text, he considers elms the best trees for plantations because they are good props for vines, good fodder for cattle, they provide good poles for fences and firewood (Gil et al., 2003).

By the 1st century BC the cultivation of elms and vines together had become such a frequent part of the Italian landscape that the plant motif began to be used by Latin poets. Gaius Valerius Catullus (c. 84 BC-c. 54 BC), Roman writer contemporary of Varro, introduced the topic of the marriage of vines and elms to literature. Catullus identified vine and elm with wife and husband, respectively, in Carmina (Poem LXII: Nuptial Song By Youths And Damsels, verses 49-60; Burton and Smithers, 1894):

E’en as an unmated vine which born in field of the barest Never upraises head nor breeds the mellowy grape-bunch; But under weight prone-bowed that tender body a-bending Makes she her root anon to touch her topmost of tendrils; Tends her never a hind nor tends her ever a herdsman: Yet if haply conjoined the same with elm as a husband, Tends her many a hind and tends her many a herdsman: Thus is the maid when whole, uncultured waxes she aged; But when as union meet she wins her at ripest of seasons, More to her spouse she is dear and less she’s irk to her parents.

Hymen O Hymenaeus, Hymen here, O Hymenaeus!

The Latin poet and mime Publius Syrus also lived in the 1st century (c. 85 BC-43 BC). Native of Syria (hence his name), he was brought as a slave to Italy, but soon he was freed and educated by his master. His mimes became well known in the provincial towns of Italy and at the games given by Caesar in 46 BC. All that remains of his work is a collection of Sentences (Sententiae), a series of moral maxims. One of these sentences says Pirum, non ulmum accedas, si cupias pira (You should go to a pear-tree for pears, not to an elm; Nisard, 1903). This maxim is probably the origin of the Spanish expression No se le pueden pedir peras al olmo (You cannot ask the elm for pears) and the Portuguese Não pode o ulmeiro dar peras (The elm cannot give pears). With the meaning of asking for something that is impossible, the Spanish expressions would appear seventeen centuries later in Cervantes’ Don Quixote, when vines were rarely planted together with elms as we shall see. But why did Syrus compare a pear tree with an elm, a species that does not produce edible fruits, instead of with any fruit tree like an apple, a cherry or a plum tree? The reason is, in our opinion, the cultivation of elms with grapevines, more frequent than other fruit tree plantations because of the higher profit obtained from the wine. Thus, although not pears, for Syrus the elms did give a fruit: grapes.
After Catullus and Syrus, many poets of the Augustian Age reflected the intimate union of the two woody plants in their oeuvres, i.e. Virgil in *Eclogues* II, 66-73 (Goold, 2001) and *Georgics* I, 1-3 (Goold, 2001), and Horace in *Epistulae* (Dilke, 1954). But it is the Roman poet Ovid (43 BC - 17 AD) who more often recorded the marriage of vines to elms as a love motif: *Amores* II, 16, 41 (Cristóbal, 1995), *Fasti* III, 411 (Segura Ramos, 1988), *Heroides* V, 47 (Cristóbal, 1994), *Tristia* II, 1, 143 and V, 3, 35 (Marcos Casquero, 1991), etc. The *Metamorphoses* (Sandys, 1632) is a compendium of Greek Mythology written by Ovid at the beginning of the Christian Era. In the Book XIV we find the passage Vertumnus woos Pomona with the following lines:

*Hard by, an Elme with purple clusters shin’d:*

This praising, with the vine so closely ioynd;
Yet, saith he, if this Elme should grow alone,
Except for shade, it would be priz’d by none:
And so this Vine, in amorous foldings wound,
If but dis-ioynd, would creepe vpon the ground.
Yet art not thou by such examples led:
But shunst the pleasures of a happy bed.

(Pomona, (Fig. 2) was a wood nymph in the Latium (Metamorphoses, XIV: 623), and by the time that Ovid wrote his Metamorphoses the cultivation of vines married to elms had become a common practice in Italy and other Roman provinces, as we know from another Roman agronomist: Columella.

Lucius Junius Moderatus Columella, born in Gades (the current Cádiz, Southern Spain) at the beginning of the 1st Century AD, wrote *De Re Rustica*, probably the most important classical work in Agriculture (Sáez Fernández, 1996). Columella had three farms in the Latium (Central Italy) and one property that Tovar (1975) locates in Jerez de la Frontera (Cádiz province). Although in the Baetica (Roman province comprising the South of Spain) the vines were also planted without props (Sáez Fernández, 1995), Columella considered the trees planted with the vines an essential part of the culture, and he recommended elms for that purpose. Columella dedicates Chapter 6 of Book V entirely to the plantation of elms in vineyards, and the main topic in his book *De arboribus* deals with the cultivation of vines, insisting again on the suitability of elms to be used as prop for vines (see Holgado Redondo, 1988). The cultivation of vines in the Baetica increased notably in this period, and it is likely that Columella ordered to planting of elms with vines in his properties, introducing this technique in the Iberian Peninsula.

Despite the fact that during the 1st century the exportation of Iberian wines to the metropolis increased (Sáez Fernández, 1995), the extent of vineyards in many regions of Italy was so large that Columella described how bees died of diarrhoea in the early spring after feeding from elm flowers, and he commented that this was the reason why bees were rare in those areas (Gil et al., 2003). The cultivation of elms in the surroundings of Rome provided abundant, cheap wood, to such an extent that the poet Juvenal (60 AD-127? AD) wrote, comparing the crockery of some rich Romans to that of the poor people at Subura quarter: *The entire Subura sounds with the elm dinner* (Satirae, XI, 141; Balasch, 1965). That is, with dishes and cutlery made of elm wood.

After Columella’s oeuvre no significant new observations were exposed for several centuries. The only remarkable work was *Historia Naturalis* by Pliny the Elder (Rackham, 1968). Gaius Plinius Cecilius Secundus (23 AD-79 AD), known as Pliny the Elder, was contemporary of Columella, but his text was written in 71 AD, at least ten years after *De Re Rustica*. Pliny also points out the intimate relationship between elms and vines: *Raise (the vines) everywhere over the elms* (**His. Nat.** XVI, 1). He distinguishes four species of

![Figure 2](image-url)
elms in Italy. Since one of them is called wild (*silvestris*; *His. Nat.* XVI, 17), it is likely that the others were known because of their use in plantations.

During the decadence of the Roman Empire in the 5th century, Pallatius wrote a compilation of the most important works in Agriculture titled *Opus Agriculturae* (Moure Casas, 1990). Like the previous authors, he recommends the elms for vine propping (Op. Agr. III, 10, 4). Another compendium in agricultural works is the *Eclogae* by Cassianus Bassus, written one century later. This ouevre, known as *Geoponica* (Meana et al., 1998), also mentioned the role of elms holding the vines because their roots do not extend far and the canopy is not very low (Geop. IV, 1, 2). Cassianus Bassus, like Pliny the Elder, mentions a type of elm that he considers as «wild elm» (*pteléa agría*, Geop. II, 6, 24). The dispersion of planted elms had to be so wide and common that the author noticed this wild type that indicated places with water (Geop. II, 6, 23):

[... and in general, everything that sprouts without having been planted, but being spontaneously green, exuberant and luxuriant, indicates that water has provided it with food (*Geop.* II, 6, 25).

Thus, the natural populations of elms were confined to isolated, steep-sided watercourses, where agriculture was not feasible.

### The Middle Ages

The Middle Ages represented an impasse in both sciences and technology until the Renaissance. In the Christian world, studies of botany were reduced to the classical authors, whose books were copied without questioning what was stated in them. On the other hand, the Arabian scientists in the Iberian Peninsula acted as intermediaries between Orient and Europe, enriching at the same time medieval knowledge with new studies. It is worth remembering that thanks to the Arabic libraries many classical books were preserved from disappearing after the decline of the Roman Empire.

Although forbidden by the Koran, the Muslims in Al-Andalus did consume wine (Lévy-Provençal, 1950). The Andalusian agronomist Ibn al-Awwan (12th century AD) wrote the *Kitab al Filaha* (Book of Agriculture; Banqueri, 1802), one of the most important and encyclopaedic of the medieval writings of the European west. He explained the cultivation of vines extensively, including the trees that should be planted with them he wrote in the chapter VII:

[... among which the most suitable for training the vines are (according to Sagrit) those with only one stem, and (according to Kutsami) the best for this are the pines and the elms [...]

The first notable book on Agriculture in the Christian Europe was written at the beginning of the 14th century, already in the Late Middle Ages. Pietro di Crescenzi (ca. 1228-ca. 1321), a native of Bologna, composed a treatise based on classical authors but also on his own experience. He wrote the *Opus ruralium commodorum* at the end of his life, when he retired curiously enough, to his Villa dell’Olmo (Elm’s Villa), some ten miles from Bologna itself. This book was translated into different languages and many editions were published in Central European countries. Crescenzi also recommended elms to hang the vines on. In the Book II, Chapter 28, he explains:

And if it is all a field, there the elm is the best tree among the others and it can be pruned often. And it can well support vines to have the grapes and it provides good greenery and pleasant shade to the people and the cattle and from it we take poles and branches for hedges and it is good to burn and it has more other things

(*Crescenzi*, 1486).

### From the 15th Century to the present day

After Gutenberg’s invention the number of editions of books on agriculture increased. In Spain one of them was the *Agricultura General* by Gabriel Alonso de Herrera. Between 1500 and 1512 he travelled over most of the Spanish provinces, and the experiences and observations that he acquired in his tour were included in his ouevre whose first edition was in 1513. This work represented the last treatise of the classical and medieval tradition, and Herrera was greatly influenced by the previous agronomic books. Although he indicated the use of elms as props for vines, he recommended this technique only on humid soils. Instead, he advised the cultivation of vine stocks on the others. Nevertheless, Herrera pointed out that the plantation of elms with vines was typical of Italy (Herrera, 1551).

Plantations of vines and trees were also uncommon in Muslim Africa, as it is found in The History and
Description of Africa and of the Notable Things Therein Contained, by Leo Africanus. Al-Hasan b. Muhammad al-Fasi was born in Granada in 1494. Soon, his family moved to Fez in Morocco, where he received university education. For several years, he carried out commercial and diplomatic missions on behalf of the Wattasid Sultan Muhammad II al-Burtuqali, acquiring a good knowledge of many regions in North Africa and Middle East. Around 1518 he was captured by Christian corsairs while returning to Tunis from Constantinople. Al-Hasan b. Muhammad was handed to the Pope Leo X, who freed and protected him. Muhammad became Christian and received the name Johannes Leo de Medicis, known as Leo Africanus. He completed his description of African geography in 1526 although it was not published until 1550. In the text, when he wrote about his travels around Morocco, he gave several references about the cultivation of vines, but most of the time there are mere indications of presence of vineyards (Rebuffat, 1990). But in the region of Hascora (North Morocco), he observed that the vines are in form of climbing vines and they are supported by the tree-trunks (Rebuffat, 1990), the manner explained in Ibn al Awwan’s Book of Agriculture (Banqueri, 1802).

At the same time that the Ancient cultivation of vines married to elms was being abandoned in most Mediterranean countries apart from Italy, the presence of this plant topic in the arts increased significantly during the 16th and 17th centuries, in parallel with the interest in the study of the classical texts that took place during the Renaissance. For instance, the Ovidian myth of Vertumnus and Pomona was reflected on canvas by Leonardo da Vinci’s pupil Francesco Melzi (1493-1570). In the centre of the scene, behind the human figures, the painter placed a vine climbing to the canopy of an elm tree (Fig. 3).

But the popularity of the vine embraced to the elm as a symbol of Friendship—or Love in its supreme form—reached its zenith after the publication of Andrea Alciato’s Emblemata liber. Andrea Alciato (1492-1550) was very well known during his lifetime, principally for his interpretations of Roman law. But his Emblemata liber, the Book of Emblems, which he wrote in his spare time as a kind of jeu d’esprit, also kept his reputation alive. This book began as translations of or variations on fables and poems in the Greek Anthology, a series of cycles of Greek lyric and epigrammatic poems by scores of writers both Ancient and Medieval Christian, assembled in a series of collections from Antiquity onwards. Already in the first edition (1531) the motif of the vine and the elm appeared (Green, 1872), with the title Amicitia etiam post mortem durans (Friendship lasting even after death, Fig. 4). The translated text in Alciato’s book is:

A vine, covered in vibrant greenery, has embraced an elm, dry with age and even stripped of foliage. It acknowledges natural change, and gratefully gives back

![Figure 3. Melzi, Francesco: Pomona and Vertumnus (1517-1520). Staatliche Museen, Berlin. As in the Ovidian myth, a vine is growing embraced to an elm behind the characters.](image1)

![Figure 4. Woodcut of Alciato’s emblem Amicitia etiam post mortem durans. Alciato, 1531.](image2)
to its parent the reciprocal obligations of service. And so by example it counsels us to seek out friends those whose pact of friendship is not broken even by death.

(Alciato, 1531)

Alciato, like Francesco Melzi, lived in Italy and should have been familiar with the traditional way of growing vines with elms. Therefore, the interpretations of the plant union given by the classical poets would be easy for them to accept. From Italy the topic passed to other European countries as the different translated editions of Alciato’s Emblematum liber were published: French (1536), German (1542), Spanish (1549) and Italian (1549). There were in all (Green, 1872) 171 editions from 1531 to the end of the 17th century.

Alciato’s emblem book had a great success, and was soon imitated by different authors. Many of these new books included emblems already present in the Emblemata liber, some of them merely transcribed or translated, some including comments, and in other occasions introducing new interpretations of the mottoes (Fig. 5). These books were widely read, and emblems like the one of the elm and the vine became included by many poets and writers in their oeuvres.

This was the case for many Spanish authors during the Golden Age of literature (late 16th century-17th century). One of them was Miguel de Cervantes (1547 – 1616), who made use of the image of the two woody plants in the Novela de la gitanailla (Navarro Durán, 1995). But Cervantes not only mentioned the emblem of the elm and the vine. In the second part of Don Quijote, which appeared in 1615 (Casasayas, 1986), Sancho said to his master-you may as well expect pears from an elm (Part II, Book II, Chap. XL; Adler, 1991).

As stated before, the expression is related to Publius Syrus’ maxim. It is worth noticing how, despite Herrera considering that the cultivation of elms with vines was infrequent in Spain in the early 16th century, the expression quoted by Sancho, whose origin was related to the agricultural technique, had remained in the language since the 1st century BC.

Herrera’s Agricultura General became very popular, and numerous editions were published until the 19th century, when the last one was brought out in 1818. In this edition, revised and expanded with the current knowledge, Clemente (1818) added new comments to the chapter on vines hung on trees. He located this method of growing vines, so accomplished and so national, in some regions of the Eastern coast and Andalusia, but this time the elms were not among the species that he mentioned (Celtis australis, Morus sp.). Some years later, in 1855 (Esteban Collantes and Alfaro), this method of growing vines had been abandoned in Spain, and remained only in Italy and in some French departments. In France, at the beginning of the 19th century, the wine-growers from the Oise (region located North of Paris), let the vines grow over fruit trees (peach, pear, apple, cherry...) but not elms (Rozier, 1809).

The marriage of vines to trees lasted in the South of Spain until the 19th century. But in other countries it was still present in the 1950’s (Manaresi, 1957): France (valleys in the Alps, the Pyrenees, the Cévennes), Georgia, Turkistan, and above all, in many regions in Italy. According to Manaseri, in Central and Northern Italy the elms were, together with maples (Acer campestre L.), the most common trees planted with the vines (Fig. 6). C. Buisman (1933) saw various ways of growing the vine on trees, in combination with agricultural crops, in Italy. Acer campestre was widely used in the province of Tuscany, whereas elms were favoured in Emilia, as farmers there wanted to feed the cattle on the twigs; the leaves of maple are bitter and not good for the animals. The elms were gradually replaced during the 20th century by wood or concrete poles as they died of DED (Manaresi, 1957; Spadoni and Matassoni, pers. comm.). Therefore, the cultivation of vines married to elms lasted at least since the Ancient
Greece (3rd century BC) until the last century, that is, more than 2,200 years of human selection, plantation and propagation of the elms in Mediterranean countries. During this time, the agricultural union of these two woody plants inspired poetic metaphors and was the origin of one moral maxim, whose expressiveness has remained thanks to popular culture. Although the underlying sense that was given to the Latin sentence in the 1st century BC is unknown, the history of the cultivation of vines with elms gives us the opportunity to gain an insight into its origin.

References


