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# **Wine in Graeco-Roman Antiquity with Emphasis on Its Effect on Health**

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**Abstract**

Homer, eighth century BC, already described the stimulating and inebriating effect of wine, and during the Graeco-Roman era, Greece originated wine production, which was later introduced to Rome. Grapes were crushed in various stages, the first traditionally being by treading feet. The resulting must was fermented for two to four weeks and then stored in large amphoras. Wine stored for a year or longer was accepted as "old" wine. Large numbers of flavouring techniques and agents were used to improve or change the taste of wine. Wine had a social, religious and medical role in public life, which set it apart from other Graeco-Roman cuisines. Hippocrates, responsible for most medically orientated Greek writing on wine, considered wine the most pleasant of all remedies for body and soul, taken internally and even applied externally. His medical contemporaries stressed the importance of not prescribing wine indifferently. For each therapeutic regime, the quantity, nature and quality of wine had to be decided on, with reference to the patient and his disease, temperament, constitution and dietary habits. Complications produced by wine were extensively described by the ancients.

## **1. Introduction**

In the Neolithic age alcohol (wines and beers) replaced hallucinogenic drugs like hemp in the social life of man. In the Graeco-Roman era wine production was originated by Greece and later introduced to Rome (Rutten 1997: 50-55). In the 8<sup>th</sup> century BC Homer (*Od. 21:293*) wrote:

"That same wine has softened you sweetly, wine which has always harmed men when they drink to the depths, abandoning the measure."

In similar vein Theognis<sup>1</sup> wrote in the 6<sup>th</sup> century BC:

"Excess drinking of wine is an evil; but if a person drinks it wisely, then not an evil, a good thing."

In this study the role subsequently played by wine in Greece and Rome is reviewed, with emphasis on its considered effect on health. An idea of its popularity may be gained from the fact that in the "Golden Age" of the Roman Empire over 180 million litres of wine were consumed annually – about one bottle of wine each day for every citizen (Phillips 2000: 35-35).

<sup>1</sup> Quoted by Galen K. IV.778 ("The soul's dependence on the body"). Transl. Singer 1997: 155.

## 2. Viticulture

Wine was originally produced from wild grapes, *vitis vinefera*, which grew throughout the Mediterranean, as well as in Europe north of the Alps. Enzymes of wild yeasts which naturally collected on the skin of the grapes, acted as fermenting agent in breaking down the grape's sugars to form alcohol and wine.<sup>2</sup> In Graeco-Roman antiquity wine production originated in Greece and Tuscany. In due course viticulture expanded to Italy, Carthage and to regions of the Roman Empire, including Gaul, Germania, Spain and Britannia. Although Greek wines were always held in high regard, significant literature on wine-production originated with the Romans and the Carthaginian, Mago. Cato the Elder (3<sup>rd</sup>/2<sup>nd</sup> century BC) produced his *De Agri cultura*, which was a pioneering work on the grouping of vines and making of wine. The *De re rustica* of Columella (1<sup>st</sup> century AD) and the *Naturalis Historia* of Pliny the Elder (1<sup>st</sup> century AD) were further excellent publications, in addition to Palladius's *Opus Agriculturae* in the 4<sup>th</sup> century AD. In due course new vine cultures, mainly subtypes of *vitis vinefera*, were developed, including the Aminean, Nomentan and Appian in Italy and in Greece the Graecula, Eugenia and Chian subtypes (Johnson 1989: 59-63; Phillips 2000: 35-45; Robinson 2006: 589-590).

### 2.1. Wine Production

Greek and Roman wine production was essentially similar. Grapes were harvested when considered optimally mature for the wine type to be prepared. For sweeter wines, grapes were allowed as much sunshine as possible. The grapes were then crushed in various stages. The first stage was traditionally by treading feet, and wine originating from this procedure was considered the tastiest and also the most active from a medical point of view. This was followed by one to three further crushing procedures under wooden beams. The final product was the least pleasant, coarse and with a high tannic content.<sup>3</sup>

The must from the pressing procedure was poured into large earthenware jars (*dolias*) usually with volumes in excess of 1000 litres, where it was left for the fermentation process, lasting two to four weeks. The wine was then poured into storage vessels, called *amphoras*. Small holes were sometimes bored into the top of *amphoras* to allow carbon dioxide to escape. *Amphoras* were never filled to the top. In the space above the wine, boiled grape-must mixed with saffron or raisin-wine was poured, before the stopper was sealed. Wines were sometimes heated ("baked") to give special flavour similar to modern Madeira wines. To enhance the flavour, chalk or marble dust could be added to reduce acidity. A portion of the must could be boiled and then again

added to the rest of the fermenting batch to enhance sweetness; this wine was called *defructum*. Lead and honey was sometimes added as sweetening agents. Roman laws codified "old" and "new" wines – "old" was older than one year. Wine diluted with sour wine was called *posca* and reserved for soldiers (usually a ration of 1 litre a day). *Lora* was more diluted wine and kept for slaves. These were usually red wines, as white wines were considered more appropriate for the upper classes. Wine sweetened with honey was called *mulsum*, and wine flavoured with herbs and spices was *conditum*. *Retsina* was wine to which a sprinkling of pitch had been added during fermentation. In earlier antiquity distillation of alcoholic drinks was unknown. Wine was thus the strongest alcoholic drink available, with a concentration reaching 14-16%. Beer was popular, made from grain soaked in water. Grape juice and must was also drunk as such. *Kykeon* was a musky wine mixture containing cheese, flour and honey. *Raisin wine* came from Crete. *Absinthum romanum* consisted of wine containing *artemisia absinthium* and a light oil. It was mildly hallucinogenic (Phillips 2000: 35-45, 46-56; Johnson 1989: 59-63, 68-74). Dioscorides (*De materia medica* V.32-73) described a large number of flavours popularly added to wine: aromatic substances like myrrh, nectarion, nard, valerian, thyme, marjoram, catnip, lavender, landress, hyssop, juniper, parsnip, sage, celery, parsley, scamming, tastes from trees like olive, sycamore, ticus, turpentine, myrtle, cedar, pomegranate, pear, rose and quince.

### 2.2. Kinds of Wine

Undiluted wine was called *merum*, but rarely imbibed as such. It was said to be taken only by provincials and barbarians. Wine was normally diluted with cold or warm water (even sea water) in the proportion of 1:3-4 for the Greeks and 1:2 for the Romans. In the Roman heyday wine was quite expensive. For a pint of ordinary wine one paid the equivalent price of one ass – for the best wine this rose to 4 asses. A loaf of bread cost 2 asses. Greek wine was normally most highly prized – Roman wine commanding lower prices (Rutten 1997: 5-7).

Pliny the Elder states that from Hippocratic times doctors used wines which were "a product of art and not nature" (*Naturalis Historia* XIV.80). In a catalogue of wines from Hippocratic writings (5<sup>th</sup> century BC) one finds a differentiation based on colour (white, clear, dark, straw-coloured), consistency as tested on the palate (thin or concentrated, light or full, hard or soft, smooth or sharp), smell (odorous, with honey smell, or without smell) and age (young or old). Galen (2<sup>nd</sup> century AD) was critical of the Hippocratic catalogue, finding it incomplete and lacking order. He differentiated five (not four) categories of wine, based on colour, taste, consistency, odour and property. Medical practitioners of the time commonly associated specific wines with different therapeutic procedures (Jouanna 2012: 179-180).

The 2<sup>nd</sup> century BC saw the "Golden Age" of Roman

<sup>2</sup> Wine and Rome. <http://penelope.uchicago.edu/~grout/encyclopaedia..>

<sup>3</sup> Phillips 2000: 35-45; Wikipedia, [http://en.wikipedia.org/wiki/ancient\\_s.v.Ancient\\_Rome\\_and\\_Wine](http://en.wikipedia.org/wiki/ancient_s.v.Ancient_Rome_and_Wine), pp 11, 12-18.

wine-making. The famous vintage of 121 BC was outstanding, known as the Opimian vintage after the consul Lucius Opimius. Remarkable for its abundant harvest, many of the vintage's best examples were still enjoyed over a century later. The outstanding wine was a white wine, Phalernian, which became a historic wine. Throughout this era sweet white wines remained the most popular. Pliny reported that in his day wines 200 years old were in existence and enjoyable.<sup>4</sup>

We have record of the following wines produced during the Graeco-Roman era:

Clazomenean, Sicyon, Technessus, Berytus, Tripolis, Thasos, Chios, Chian, Arusian, Lesbian, Tyre, Sebennys, Melampsinthius, Albanian, Caiembos, Phygelites, Mesogites, Omphacites, Deuterias, Adynamos, Pucinum, Sebia, Caecuban, Surrentine, Mamertime, Pompei, Phalernian, Adriatic, Praetitian, Istrian, Melites, Oinomela, Agryostaphylites, Samotracian, Trifoline, Alban, Sabine, Tibnatine, Setian, Aminean, Cnidian, Praemestine, Signian, Marsian, Scybalan, Theran, Tyrrhenian, Praenestine, Asaraba, Heleliaphasum, Panakites, Phorios, Salanites, Daucus (Dioscorides *De materia medica* V.6-9; Pliny *Naturalis Historia* XIV.80-118; Caelius Aurelianus *On Acute Diseases* II.281, 325, *On Chronic Diseases* II.103-4, IV.68-69).

### 3. Uses of Wine

Wine had social, religious and medical roles which set it apart from other Graeco-Roman cuisine.

The Greek *social wine culture* gradually gave birth to the Roman wine culture. Although early in history Rome was "dry" by Greek standards, this situation changed during the Empire (1<sup>st</sup> – 5<sup>th</sup> century AD). Gradually wine was increasingly seen as a necessity – a way to show off wealth and prestige, but not at all restricted to the elite. In early Rome access of wine to women, young men and slaves was restricted, but in its "Golden Age" its use exceeded that of Greece. The intention of the Greek *symposium* was to imbibe enough wine to enjoy a mind released from inhibitions and with conversation stimulated. At its Roman counterpart, the *convivium*, there was a tendency to get drunk more blatantly.<sup>5</sup> Wine was usually mixed with water which would have been cold, and served in pitchers which would also have had a cooling effect, whether red or white wine. In winter, though, the wine was often mixed with *inter alia* honey and served hot, whether red or white.

Wine also had a *religious role* to play. By the 2<sup>nd</sup> century BC the cult of Bacchus was active in Greece and Rome, but its festivals, known for excessive wine consumption and said to include animal sacrifices and sexual orgies, were progressively censured by the Roman Senate. In 186 BC the Bacchanalia was banned. Wine was never poured on funeral pyres. Rome assimilated two religions which viewed wine in

generally positive terms – Judaism and Christianity. In the Torah grape vines were some of the first crops planted after the Great Flood, and on settling in Canaan after the exodus from Egypt. Many of the Jewish views were adopted by the Christian religion originating in the 1<sup>st</sup> century AD. One of the first miracles performed by Jesus was turning water into wine. The crucial sacraments of the Holy Communion and Eucharist involved the use of wine (Phillips 2000: 57-63).

### 4. Harmfull Effects of Wine

The following section records the effects of wine on the human body as reported by writers during Graeco-Roman antiquity.

As early as the 8<sup>th</sup> century BC *Homer* (*Od.* 21.293), and in the 6<sup>th</sup> century BC *Theognis* (ap. Galen K.IV.778) described the stimulating and inebriating effects of wine on man.

*Hippocrates* (5<sup>th</sup> century BC) is the richest source of medical writings on wine in the Greek era. He believed that wine was nourishing and a tonic for man, but its effect changed with the imbibers age and temperament. He wrote that, based on the humoural theory, wine was considered hot and dry, compared to water which was cold and wet. It thus heated tissues and had a specific effect on the head and cavities of the body, the "lower cavity" (abdomen) in particular. An excess of wine could cause diarrhoea as its dregs were considered purgative. This was particularly common among active athletes subjected to a diet rich in meat and wine. Non-specific abdominal pains could also be attributed to wine. Excess wine could cause an outbreak of hepatitis or jaundice. Sweet wine could cause swelling of the liver and spleen and brought on thirst in bilious persons. It could lead to long-lasting flatulence in the upper intestinal track, but not the lower intestine. Sweet wine acted as expectorant. Hard and light white wine mixed with water, could cause constipation. Wine could precipitate diuresis, soft wine less so than strong white wine. Rarely wine could cause disease of the "upper cavity" (thorax), such as empyema, erysipelas of the lung, pleurisy and varieties of pneumonia (Jouanna 2012: 176-181, 183).

Hippocratic doctors showed a particular interest in the effect of wine on the head, for which it seemed to have a predilection. Excessive wine caused heating of the head with a resultant feeling of heaviness, headache, intoxication and even death. Intoxication was treated as a form of illness, not a social disgrace, and never condemned in the Hippocratic Corpus. When the head was warm for any reason, it attracted wine (Jouanna 2012: 180-183). Hippocrates left various case histories describing the effects of severe intoxication – some ended in death. Case histories repeatedly described aphasia, delirium and madness as symptoms of intoxication (*Epidemics* 3.2.5; 4.15; *Diseases* 2.22).

*Dioscorides* (1<sup>st</sup> century AD) wrote quite extensively on the harmful effects of wine, and specified the specific harm caused by individual wines. He said that old wines were very pleasant to the taste, but harmful to nerves and sense organs. New wine was diuretic, caused flatulence and gave bad

<sup>4</sup> Wikipedia, [http://en.wikipedia.org/wiki/ancient\\_s.v.\\_Ancient\\_Rome\\_and\\_wine](http://en.wikipedia.org/wiki/ancient_s.v._Ancient_Rome_and_wine), pp. 3-18; Johnson 1989: 59-63.

<sup>5</sup> Wikipedia, [http://en.wikipedia.org/wiki/ancient\\_s.v.\\_Ancient\\_Rome\\_and\\_Wine](http://en.wikipedia.org/wiki/ancient_s.v._Ancient_Rome_and_Wine), pp. 59-63.

dreams. Red wine more than white wine, engendered indigestion and drunkenness. Sweet wine caused abdominal distension. Dry wine was diuretic and caused headache. Wine containing gypsum damaged the nervous system and bladder. Concentrated wine caused headache, flatulence, gastritis and drunkenness. Wines from the Adriatic coast caused protracted inebriation. Asiatic wines from Mount Tmolos caused headache and damaged the nerves. Wines containing sea water inflated the belly and harmed nerves. Heavy and dark wines damaged the stomach, caused flatulence and were fattening (*De materia medica* V.6-9).

*Soranus* (1<sup>st</sup>/2<sup>nd</sup> century AD) warned that heavy drinking disturbs the attachment of seed to the uterus, and also delays wound healing. A wet nurse should not drink wine because it harmed her soul and body, and contaminated her milk intended for the infant in her care. The contaminated milk could cause infantile tremor, coma, apoplexy and convulsions (*Gynaecia* 1.38; 2.19).

*Galen* (2<sup>nd</sup> century AD) left a significant contribution on the topic of wine in health care, but it is probable that much of Galen's work is partially derived from Hippocrates' writings. Galen agreed with Plato, with Cretans and Spartans that soldiers, magistrates on duty, helmsmen, practicing jurors and council members should not drink wine while on duty, as it could harm their mental abilities. Wine played an important role in the production of blood. Clear, transparent, yellow wines were the least dangerous. Thick black and sweet wine caused thick blood which caused illness. Black wines also thickened humours, and could damage diuresis. Excellent wines like Phalernian, Lesbian and Theran produced blood of balanced thickness, but could induce heat in the head, which had to be avoided by epileptics and patients suffering from headache and mania. Sour wines were quite useless in the treatment of human disease, remained in the stomach after ingestion and caused vomiting. Dark sweet wines did not alleviate chest diseases and exaggerated enlargement of the liver and spleen (*The soul's dependence on the body*, K.IV.810-812; *The thinning diet*, in Singer 1997: 318-322).

*Caelius Aurelianus* (5<sup>th</sup> century AD) stated that excessive wine intake could precipitate phrenitis, pleurisy, cardiac disease, synanche (swelling of the throat), cholera, scotoma (sudden blindness), epilepsy, mania, paralysis of old men (especially in the winter) and podagra (gout). When taken in large amounts at the onset of any illness, wine exacerbated the condition (*On acute diseases* 1.33; 2.38; 2.87; 2.164; *On chronic diseases* 2.1).

## 5. Medical Role of Wine

*Hippocrates* stated that "Wine and honey are wonderfully suited to man, if in health and disease you administer them appropriately and in accordance with individual constrictions." He believed that in addition to being a food, wine was excellent treatment of body and soul, taken *internally* and applied *externally*. It was indeed considered the most pleasant of all remedies (Jouanna 2012: 173-4;

Hipp. *Internal Affections* c.6).

Hippocrates did, however, stress the importance of not prescribing wine indifferently. In each instance when deciding on a therapeutic regime, the quality, nature and quantity of wine had to be decided on, with reference to the patient's disease, temperament, constitution and dietary habits. Even climatic conditions and other characteristics of the country could affect therapy. The public art of weighing up advantages and disadvantages of therapy was a constant challenge, and it is thus not surprising that doctors were not always in agreement regarding responsible therapy. In general the authors of the Hippocratic Corpus prescribed that in winter preferably dark and undiluted wine should be taken. In summer it should be well diluted with water, and in autumn and spring moderately diluted. In prescriptions wine dosages were rarely quantitatively specified in any detail. For constipation a soft wine was an excellent purgative, and strong white wine a potent diuretic which removed dysuria. In lung disease wine was a good expectorant, soft white wine better so than strong wine. When thin individuals wished to promote vomiting in winter months, they should take a complex mixture of three wines (full, soft and sharp), after ingesting specific foods and taking a bath. However, because the properties of wine varied so much, this procedure did indeed sometimes prevent rather than enhance vomiting (Jouanna 2012: 185-189).

Hippocrates further advised that wine should be avoided with diseases of the head, angina, certain lung diseases, phlebitis, fever, delirium and lethargy presenting as acute disease. In acute diseases straw-coloured or dark wine is to be avoided. For children wine should be prominently diluted. He warned against sudden changes in wine drinking habits, except in certain cases of typhus where it might be beneficial (Jouanna 2012: 181-2, 187).

Because wine benefited blood formation, it was recommended after episodes of heavy bleeding when the patient turned pale. A mixture of wine and a pinch of dried otter kidney were useful for testicular pain, and rather unexpectedly a cortile of undiluted wine was useful treatment for headache caused by intoxication. Wine was an excellent tonic for patients on a harsh dietetic regime. A man intending to have sexual intercourse with a woman should not become intoxicated, but a drink of undiluted strong dark wine would be beneficial. Wine was indicated for women with irregular menstruation or a red uterine discharge. Troublesome lochia responded to dark wine and rue, while a mixture of dark wine, black grape, sweet pomegranate, goat's cheese and flour benefited postpartum diarrhoea. Realgar, brimstone and almonds taken with wine, cured cough as well as suffocation of the chest and uterus (Totelin 2009: 82-83; Jouanna 2012: 184,189).

Wine-containing *local preparations* were applied to superficial lesions for cleansing and healing purposes. In surgical procedures wine was commonly used but never in wounds of the head. Wine and nitrate or gall nut extracts were popular for cleansing of wounds. Poultices containing wine, water and flour were popularly used for open fractures

or subluxations. Hippocrates described an intercostal incision performed for evacuation of puss from the thoracic cavity, followed by the injection of wine and lukewarm oil to avoid rapid drying of tissues. Hysterical attacks were treated with abdominal poultices containing fermented dark wine, flour, herbs and spices. Eye ointment contained honey and soft old wine, cooked together, and a rectal ointment contained eggs boiled in fragrant dark wine. A depilatory cream with a wine base was available, and bathing was commonly supplemented with effusions of oil and warm wine. In gynaecology a wine preparation was popular, e.g. in cleaning a prolapsed uterus and ulcerations of the female parts. The womb was fumigated with wine-based preparations, and enemas commonly contained wine, mixed with flour and herbs. A enema for dropsy included wine, honey, oil, nitrate and the sap of wild cucumber (Jouanna 2012: 191-2).

*Cato* (3<sup>rd</sup>/2<sup>nd</sup> century BC) wrote extensively on the medical uses of wine. He described a laxative which contained wine mixed with ashes, manure and hellebore. Snake bite and gout could be treated with juniper and myrtle soaked in wine. A mixture of old wine and juniper, boiled in a lead pot, was useful in urinary disease, and wine mixed in very acidic pomegranate cured tapeworm. The Romans of his time recommended wine for mental disorders like depression, memory loss and grief, as well as for bloating when added to bodily ointments, constipation, diarrhoea, gout, halitosis and vertigo (Phillips 2000: 57-63).

*Asclepiades* (1<sup>st</sup> century BC) recommended wine in moderation with exercise for fever, to be continued until the pulse collapsed. Periodic fever needed salted wine. Phrenitis patients should be treated with strong undiluted wine which could be mixed with seawater. A drunken person should never receive wine. Wine is sometimes recommended for lethargy, but it might precipitate convulsions in this condition. Cardiac disease should be treated night and day with strong brine flavoured wine taken after food (Caelius Aurelianus, *Acute diseases* 1: 109, 111).

*Dioscorides* (1<sup>st</sup> century AD) wrote extensively on kinds of wine and its effect on man. He stated that white wine was healthier than red wine which engendered drunkenness. Sweet wine was coarse but less inebriating than dry wine. All wines were effective at destroying poisons and opium, but some more effective than others. He points out the inherent differences in effectiveness of different wines when used for different disabilities. A proper understanding of the nature of available wines was thus essential for effective wine therapy. All drunkenness was dangerous but especially continuous drunkenness. Sediment of wine was very astringent in the body, but nevertheless effective in treatment of abnormal menstrual flow, inflamed bones, swollen breasts, rotten nails, as eye mixture when added to calculated powder, and in removal of scars. Dioscorides wrote that certain wines, when mixed with must acquire specific healing properties. Asaraba wine and must was a diuretic, cured dropsy, jaundice and sciatica. Wine flavoured with nard in must, cured liver disease, dysuria and inflamed stomach. Daucus wine in must alleviated hypochondrial disease, chest and womb disorders,

coughs, convulsions and hernias. Helelisphacum wine in must was good for the kidneys, bladder and bleeding disorders. Panakites wine in must cured convulsions, hernias, orthopnoea, splenic disorders, sciatica, menstrual flow disorders, oedema and neutralised the venom of poisonous animals. Phthoriosenibrum wine induced abortion, date palm flavoured wine cure gastritis, haemoptysis and bodily discharges, while fig flavoured wine was good for intestinal and urinary troubles. Old wine in honey cured chronic fevers, arthritis, kidney disease, stomach ailments and "weak head". Phalernum, an excellent wine, showed varying healing effects in different patients; it was for instance often good for the stomach, but sometimes bad for failing eye sight and bladder disease (*Materia medica* V.6-9).

*Soranus* (1<sup>st</sup> – 2<sup>nd</sup> century AD) wrote that when vomiting was prominent a mixture of radishes, wine and honey (or vinegar) was effective. In cardiac disease very strong wine regularly taken, was indicated. On weaning a child he/she should not be alienated from anything already used, e.g. drinking of hot or cold fluids, even including some wine (*Gynaecia* 2.48).

*Galen* (2<sup>nd</sup> century AD) stated that wine was good for old people as it balanced the hot and cold humours. Because of its rapid absorption, transformation and assimilation wine was excellent nourishment, but only when ingested, not when applied to external surfaces. Potentially hot wine was rapidly converted into blood. Sweet wines tended to produce thick blood, was bad for the spleen and diseased liver, but good for the chest. Clear, yellow wines were very nutritious and produced medium humours. Thick black wine produced thick blood. Yellow sweet transparent wines were the healthiest, but because of its hot tendency the head was affected early, and it should thus not be taken by epileptics and people with headaches or mania. They also ameliorate chest disease (without fever and coughing). Cilician wines were however very hard and useless for chest disease. Sour wines had no medicinal properties, and caused health problems by remaining in the stomach and causing vomiting. When taken to improve the size and speed of the pulse, wine was better than stimulating foods. During convalescence white or mildly yellow, sweet and medium tasting wines are most effective. Galen's royal tonic, theriac, contained wine and opium (*The soul's dependence on the body* K. IV.778-779, 810-812; *Mixtures* K.1. 655-656, 659; *The pulse for beginners* K.VIII.10; *The art of medicine* K.I. 406).

*Caelius Aurelianus* (5<sup>th</sup> century AD) warns that any wine taken in excess early in a disease causes exacerbation. For chronic headache he prescribed a complex regime which even included some wine with a diet. He advised specific wines for different disease complexes. For mild fevers salted Samothracian wine was indicated. In cardiac disease he prescribed a clear white wine, like Surrentine or Phalernian. Severe fevers needed thinner wines, e.g. Sabine or Tiburtine; when general nutrition was needed (in afebrile stale), he prescribed Setian or Phalernian wine, given with food. When bleeding was a problem, local applications of Aminean wine, with cupping, was indicated. For synanche mixtures of herbs,

onions and wine (Chian, Rhodian, Cnidian) made into pills, was swallowed with mead or honey. Raisin wine from Cibyra or Crete was also useful, and could also be taken for catarrh. Astringent wine like Praenestine or Surrentine was given for coeliac disease. For the opening of a large external abscess a young wine or Scybelan wine was taken (*On acute diseases* 1. 110-111; 2.211-213; 3.43; *On chronic diseases* 2.104; 4.38, 68; 5.121).

## 6. Conclusion

From this study it is clear that wine was considered a most important component of daily life in Graeco-Roman times. Besides beer, wine was the only alcoholic drink of the time. It was used in some religious ceremonies, was seen as a social attribute, a useful nutrient and significant medicament for illnesses of the body and the mind. As in modern times wine was recognised as a cause of social and medical problems, but it played a much more defined role in the therapeutic function of the physician. Alcoholic intoxication was not viewed with the social negativity of modern times. It was considered a disease rather than a social evil, and managed as such. Literature of the time contains no evidence of formal censuring by the medical profession.

It is evident that although viticulture originated in Greece, the evolution of the Roman Empire saw extensive development of the wine trade which reached a climax during the Roman “Golden Age” (2<sup>nd</sup> century BC). Pliny the Elder (1<sup>st</sup> century AD) wrote that before 150 BC wine played a much reduced role in Rome, when women and slaves were originally not allowed to drink. In his day the wine market contained a large variety of wines, exceeding 50 in number and originating from the whole Mediterranean area and beyond. The decline of the Roman Empire eventually also saw a marked decline in the contemporary international wine market (Rutten 1997: 50-55). In the treatises of the Hippocratic authors four therapeutic wines have specific names, whilst the work of subsequent writers like Dioscorides, Galen and Caelius Aurelianus have ample mention of wines with names of origin.

Much of the information from the Greek era is derived from the Hippocratic writers. The question may arise whether the Greek medical community at large agreed with their approach. It is thus relevant to conclude with the views of a contemporary Athenian physician, Mnesithas (4<sup>th</sup> century BC) as recorded by Athenaeus:

“The gods revealed wine to mortals to be the greatest blessing for those who use it correctly, and, for those who use it unregulated, the opposite. It gives nourishment for those who use it well, and strengthens the soul and the

body. In medicine it is a very useful thing. Indeed, it can be mixed with medicine in a potion, and is beneficial for those who have wounds. In daily gatherings, for those who drink in moderate and mixed amount, it adds to their wellbeing. However, if it is drunk in excess, it leads to violence. If it is drunk in equal measure, it provokes madness; and if it is taken undiluted it leads to paralysis of the body. This is why Dionysus is everywhere called a doctor” (Jouanna 2012: 193)

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