

**WESTERN DRINKING NORMS: ARE THEY ROOTED IN ROMAN AND
BARBARIAN ANTIQUITY ? ***

by

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ABSTRACT

In antiquity distinctly different drinking norms developed in Western Europe. The southern, or Mediterranean, wine drinking culture viewed wine as a normal part of the daily diet and cultivated the vine. The northern, or Nordic, culture viewed alcohol with ambivalence (extreme heavy drinking vs. abstinence) and consumed and manufactured grain based beer and spirits. Expansion of the Roman Empire brought the Southern wine drinking norm to West Central Europe. As these areas became Romanized, they adopted urbanization and Mediterranean wine-drinking patterns. After the decline of the Western Roman Empire, the oldest provinces - which retained Roman culture and language - also retained Mediterranean norms. Romanized areas such as Gaul integrated some aspects of northern drinking into the predominantly southern patterns as a result of the Germanic invasions and evolved a blended pattern of both wine and grain based beverages. The Nordic/Germanic areas, untouched by Roman influence, retained heavy ale/beer drinking patterns and preferences. Britain lost its veneer of Romanization and reverted to a pattern with Northern overtones in the wake of the Germanic invasions throughout the early Middle Ages. These drinking preferences and attitudes from the early Middle-Ages became the underlying cultural norms in modern Western Europe. Although patterns are changing, these different drinking customs and beverage preferences are still found in nations overlaying these ancient cultures today.

This model is supported by statistical analyses. Pearson-rho calculations show significant ($P < .001$) positive correlations ($r = .7$) between being a Roman Province, Viticulture, Romance language, and high per capita absolute alcohol and wine consumption, all features of Romanization. Multiple regression analysis reveals that high per capita alcohol consumption is predicted by having a Romance language and being a former province (78%). Conversely low per capita alcohol consumption is predicted by a Germanic language and lack of being a Roman province. High wine consumption is predicted by Romance language only (75%). High beer consumption is predicted by a Germanic language and low alcohol consumption (51%).

INTRODUCTION

In the contemporary world as western European nations attempt to find common ground for trade, economic, and political agreements, conflicts resulting from different cultural norms¹ become more likely. Tensions between nations due to a particular cultural value can lead to stalemates in signing trade and other agreements. There also exists the potential for economically stronger nations forcing unilateral agreements upon weaker nations with different values. Such a potential exists today for international agreements concerning policies or prevention measures regarding alcohol use and abuse.

In the modern world there is a striking difference in drinking practices and attitudes between various western cultures, particularly between the southern and northern nations of Western Europe (Davies 1984: 26; Heath and Cooper 1988; Engs 1991). These differences do not appear to be a modern phenomenon. Based upon limited historical and archaeological materials, to be summarized in the next section, there is some support for the observation that modern western drinking norms may still reflect patterns and preferences developed in antiquity (Engs, 1991).

If drinking norms have their origins in antiquity and have become ingrained in the social fabric of their nation, it is likely that social policy or control efforts, as part of international agreements, may be difficult to implement. Therefore, it would be of interest to determine if contemporary western European drinking norms do, in fact, reflect the preference and patterns of the ancient cultures they overlay in terms of statistical, and not just historical, interpretations. As Davies and Walsh (1983:285) have suggested, since little is known about socio-cultural, historical and religious factors, and how they might influence alcohol consumption and problems related to drinking, we must investigate these areas. Thus the purpose of this paper is to examine the following model suggested by Engs (1991) in terms of some empirical analyses to determine if differences in drinking norms between the southern and northern European nations are rooted in ancient Roman and Barbarian Celtic-Germanic cultures.

The Model

In antiquity, different drinking norms developed in the southern and northern regions of Western Europe. As the west central areas became Romanized, they adopted urbanization and Mediterranean wine-drinking patterns. After the decline of the western Empire, the oldest provinces - which retained Roman culture and language - also retained Mediterranean drinking norms and viticulture. Romanized areas such as Gaul integrated some aspects of northern drinking into the predominantly southern patterns as a result of the Germanic invasions and evolved a blended pattern of both wine and grain based beverages. The Nordic Germanic areas, untouched by Roman influence, retained heavy ale/beer drinking patterns and preferences. Britain lost its veneer of Romanization and reverted to a pattern with Northern overtones in the wake of the Germanic invasions throughout the early Middle Ages. These drinking patterns and attitudes from the early Middle Ages became the underlying cultural norms in modern western Europe (Engs 1991).

Current Western European drinking Norms

Before the origins and characteristics of ancient drinking patterns are discussed, the attributes of contemporary drinking norms need to be clarified. Two major drinking norms are dominant in western Europe² (Davies 1984: 26; Heath and Cooper 1988) along with a blending of the two. The Southern European ("Mediterranean", "wine drinking" or "wet") patterns are found in Italy, Spain, Portugal, and southern France. The Northern European ("Nordic", "beer/spirits" or "dry") norms tend to be found in Scandinavia, the Netherlands, Ireland, and north eastern Germany. A blend of the two norms, with heavy Southern influences, is found in northern France, southwestern Germany, Belgium, Austria and Switzerland. The UK has a blended but more Northern pattern (Engs 1991).

Southern drinking norms are characterized by the acceptance of wine as a pleasant part of the daily diet. It is the most commonly used alcoholic beverage and its consumption primarily occurs with meals. Most of the population consumes wine including children who are often given it diluted with water. People generally do not

drink to get drunk and heavy abusive drinking and public intoxication is frowned upon even at festive occasions (Davies 1984:26,45; FAO 1983; Jellinek 1962:388; Heath and Cooper 1988; Smith and Hanahan 1982:19; Trice 1978:22-23; Ullman 1958:51).

A salient feature of the southern cultures is high per-capita alcohol consumption, compared to the northern ones (See Table 1). However, there are few perceived psycho-social problems related to alcohol consumption and few alcohol control policies regarding its use compared to the northern nations (Davies 1984:45,55; Davies and Walsh 1983:264; FAO 1983; Heath and Cooper 1988; Smith and Hanham 1987:18; Trice 1978:22-23). The Romance or Italic based languages are spoken, viticulture is a major industry and all of these countries were provinces of the Roman Empire (de Blij 1983; Garnsey and Saller 1987; Renfrew 1987). (See Table 1)

In contrast to these Mediterranean norms, the northern attitudes about alcohol consumption are ambivalent (extremes of heavy drinking or abstinence). Beer, ale and spirits based upon grains are the most commonly consumed and manufactured beverages. Episodic, and often heavy drinking, occurs on weekends or special occasions and there is sometimes social pressure to drink. Some people drink for the purpose of getting drunk. Public drunkenness is more or less accepted, drinking often occurs without food and a high percent of the population abstains (Bales 1946:495; Davies 1984:26,45; Jellinek 1962:383-384,387; Smith and Hanham 1982:18; Ullman 1958:52).

Also different from the southern norm, age limitations are generally set for alcohol consumption in many northern cultures. Alcohol is usually prohibited for children, even at family functions in the home. Although per capita consumption is low, compared to the southern cultures, there are many perceived psycho-social problems related to drinking and there are many laws regulating alcohol use (Conley & Sorensen 1971:131; Davies and Walsh 1983:264; Davies 1984:45,55; FAO 1983). These countries were not Roman provinces, do not have commercial viticulture, and speak a Germanic - Celtic until recently in Ireland and Scotland - based language.

In the Blended cultures both Germanic and Latin based languages are spoken and all were former Provinces (Engs 1991). Public intoxication is generally frowned upon and there are many alcohol control policies. The Southern-Blended pattern is characterized by daily drinking of wine or beer with meals; these beverages along with spirits are consumed at other times often without food. Per capita alcohol consumption tends to be high and there are perceived physiological alcohol problems in some of these nations most notably France. In the Northern-Blended pattern, found in the UK, there are perceived psycho-social problems related to drinking although per capita consumption is low; there are many alcohol control policies (Davies and Walsh 1983:74-77,85-86,246-248; Jellinek 1962:385,388).

ORIGINS OF SOUTHERN AND NORTHERN EUROPEAN DRINKING PATTERNS AND PREFERENCES

The development of viticulture, wine drinking and high per capita consumption

A suitable climate

A primary factor for the development of different drinking patterns and beverage choices in antiquity was the climate; if it was conducive to viticulture wine was available for daily consumption. The vine grew naturally in the southern Mediterranean, but not in the more northern central areas of Europe. The northern limit for modern viticulture is between 30 and 50° North Latitude and 10° C (50°F) and 20° C (60° F) annual isotherm (De Blij 1983:13-15). From earliest times vineyards were cultivated and wine was able to be preserved for several years thus giving a more or less constant supply for those who could afford it throughout antiquity in Middle Eastern and southern Mediterranean areas (Hyams 1987; Younger 1966).

The importance of viticulture and wine to the Romans

Viticulture is thought to have been introduced into Italy ca. 600 B.C. and into southern France (Marseilles) by 540 B.C. by Greek colonists. By the beginning of the 2nd Century B.C. wine, in some form, was thought to have become the daily

drink of all Romans both rich and poor (Cunliffe 1988:22; Hyams 1965:94,130-131; Younger 1966:134,169).

Fine mature wine and viticulture were extremely important for both social and economic reasons to the Romans. Modern interpretations of both classical literature and archaeological finds suggest that numerous wine shops and eating/drinking establishments were common both in urban and in rural areas along the roads from the 3rd century B.C. until the end of the western Empire (5th Century A.D.). Both crude and elaborate wine mixing gear and drinking containers have been found wherever Romans lived attesting to the importance of wine use for ritual and daily consumption. By the early Middle-Ages it was drunk by all classes in the Mediterranean countries and by the wealthy throughout Western Europe (Jones 1986:766; Hyams 1965:108-117, 130-131; Younger 1966:152,166-169, 206-208)

Classical literature³ from the 2nd Century B.C. through the 1st Century A.D. discuss viticulture methods. It also suggests that the rich consumed expensive aged vintages while poorer people drank new wine or wine made from the second pressings. Moreover, wine was generally drunk diluted with water; drinking undiluted wine was considered uncivilized.

On the other hand, beer drinking was scorned by the Romans. It was considered the drink of the poorer classes in Gaul, the Barbarians and mountain people. To call someone a "beer-swiller" Sabaiarius was considered a grave insult according to Ammianus Marcellinus (XXVI.8.2, XIV.6.26) the Roman historian of the late 4th century A.D.

Abundance of wine and high per capita consumption

Most modern historical interpretations suggest high per capita daily consumption but few perceived problems related to drinking for most of Roman and Italian history. By the 2nd Century B.C., Purcell (1985:13) calculates per capita consumption to be about 250 liters per year. This high consumption continued throughout the late Republic and the Empire. Over this time period of about 500 years, inexpensive and even free wine was often made available to the general public.

Wine was even used as payment by the state (Jellinek 1976:1736-1739; Jones 1976:628,766,1739; Purcell 1985:14-15).

Heavy drinking to intoxication and concerns about drunkenness, appears to have occurred between the early 1st Century B.C. and early 2nd Century A.D. peaking in the mid-1st Century A.D. There are many descriptions, concerns and admonishments against drunkenness by classical authors during, and references to the decline of heavy drinking, after this time period⁴. This heavy drinking pattern occurred during a time of rapid expansion and urbanization. The resulting social stress and anxiety is thought to be a primary cause for the behaviour. When rapid urbanization slowed, this pattern ceased and there was a resumption of more moderate drinking among Italians (Engs 1992; Purcell 1985; Younger 1966:215-217).

The spread of viticulture and wine drinking into west Central Europe through the process of Romanization⁵

Today, the major areas of European viticulture, high per capita consumption and daily wine drinking overlay those of former Roman provinces. As Romans conquered the western and north central areas of Western Europe from about the late 3rd Century B.C. through the mid-1st Century A.D., they brought urbanization, language, and viticulture to Spain, Portugal, and up the Rhône into what is now central France, Switzerland, Austria, southwest Germany and across the Channel to England. The earlier the settlement/occupation the more likely the region was to retain such basic characteristics of Roman culture such as language and the wine drinking norm over the ensuing centuries (Drinkwater 1983; Garnsey and Saller 1987; Hyams 1965; Jones 1986; MacMullin 1963; Younger 1966).

By the time of Augustus in the late 1st century B.C., Vineyards from the Iberian Peninsula, Italy and Mediterranean France were exporting fine wines into Gaul and Britain. Both historical and archaeological evidence suggest that after Caesar's conquest in 57 B.C. wine consumption increased among all social classes in Western Gaul (Cunliffe 1988:139-140; Purcell 1985:14-15; Hyams 1987:136-137; Younger 1966:159-161).

In Britain, although there is some evidence of the vine in a few southeastern areas, viticulture did not readily thrive. Wine was likely consumed only by rich villa owners or urban dwellers, unlike the wine producing areas of central and southern Gaul, it did not become part of the social fabric. The Scandinavian countries and Germanic areas north of the Rhine did not enjoy a climate suitable for vine growth, were not Romanized and rarely even drank imported wine (Cunliffe 1988:178-179; Fitzpatrick 1985:311; Frere 1987:284-5; Morris 1977:376; Salway 1981:654; Williams 1977:337; Younger 1966:164, 237-243)

The shortage of alcohol and development of episodic drinking in the North

"Feast or famine" due to agricultural conditions

Cunliffe (1986) suggests that infrequent but heavy drinking to intoxication among northern Celtic and Germanic tribes may have developed because alcoholic beverages were not always available due to variations in the weather. Even today unpredictable weather patterns, including drought and floods, can produce lean years for fruit or grains. If alcohol production was limited due to the amount of grain grown, a "feast or famine" situation may have developed. This could have led to sporadic bouts of heavy drinking to intoxication whenever any alcohol was available; alcohol may have also been saved for special feasts due to its rarity. Ales and beers, produced without preservatives, tend to spoil quickly thus inducing people to consume them while still fresh. Mead, which depends upon a honey supply, was likely scarce and used primarily at religious feasts. Due to the fact that grain and fruits also needed to be used as food supplies, it is likely that alcoholic beverages were on the whole scarce in the northern areas for most of its early history (Brun-Gulbrandsen 1988:13,19).

Extremes of light and dark seasons

In extreme northern areas of Europe, including the Scandinavian cultures, north-eastern Germany, Britain and Ireland there are wide seasonal variation of light and darkness due to the latitude. For much of the winter many of these areas are almost in perpetual darkness. At least one study has shown that higher alcohol consumption occurs when it is dark compared to when it is light. Some proportion of

the population becomes depressed in the winter months. Heavier drinking has also been found among depressed people. Extremes in dark-light cycles could have been a factor in episodic heavy Northern drinking compared to more moderate consumption in Southern areas with less extreme day-night and seasonal cycles (Geller 1971; 1991; Parker et al, 1987; Thompson & Silverstone 1990).

Differences in socio-political structures

Dietler (1989,1990) suggests that the differences in drinking patterns between the north and the south may be related to different Iron Age social/economic systems. The northern areas of Europe had a hierarchical system in which only the very rich were able to consume alcoholic beverages on a regular basis and rare wine was considered a status symbol. On the other hand the southern areas had a hieratic system where good wine was given out as payment to fulfill social obligations leading to all strata of society having frequent access to wine.

Beer, the Northern norm of heavy episodic drinking and ambivalence towards alcohol

Beer, ales, ciders and mead were the indigenous beverages of the northern European nations. Heavy episodic feast drinking to intoxication was the drinking norm among both Celtic and Germanic Barbarian groups throughout antiquity and into the Middle Ages. When wine was first imported into Gaul and Britain, it was also rapidly consumed at drunken feasts. This pattern of drinking to intoxication at religious or other celebrations, or even when alcohol was available, along with the indigenous Northern beverages has been discussed by numerous Classical⁶ and contemporary authors (Davidson 1988; Dietler 1990; Engs 1991; Ross 1988). Archaeological evidence also supports the classical authors in their descriptions of ale and mead drinking among these Iron Age groups (Biel 1981:16-18; Dietler 1990:392-393; Frere 1987:7-8; Piggott 1965:102; Ross 1988:20; Stjernquist 1977:18-19).

After heavy drinking fights, murders, and other serious consequences often occurred (see footnote 6). In the northern areas a reaction to this mayhem and the use of any alcohol likely developed among some individuals while others still accepted

intoxication as the norm. These conflicting reactions led to ambivalence concerning the use of alcohol in northern cultures. Although the Gallic - modern France/southwest Germany - Barbarians were described for the most part as adopting Roman ways, including drinking wine in moderation, Germanic groups were still described as exhibiting episodic feast drinking behaviours throughout the late Empire and early Middle Ages. Over the centuries there have been admonishments by many concerning this episodic drinking pattern which is still found in contemporary times in the northern cultures. Beginning in the late early Middle Ages some Germanic cultures attempted to control this drunken behaviour through crown and/or clerical edict⁷. Today the most restrictive attitudes and measures concerning alcohol are found in these Northern cultures (Austin 1985:130,147; Braudel 1984:233-234,239; Davies and Walsh 1983:264; Monckton 1966:23,29-36, 44-46; Popham 1978:255; Thorpe 1988:345,403,502,600; Thompson 1982:245).

Blending of Roman and Barbarian patterns in west Central Europe

During the Germanic migrations of the late western Empire and early Middle Ages, the northern practice of drinking at times other than meals and beverages other than wine, were integrated into some western Roman provinces. The spread of Christianity, however, helped keep viticulture and the urban custom of wine drinking with meals alive. Contemporary historians suggest that the foundation of modern western European society resulted from the integration of the Roman, Christian and Germanic culture during the early Middle Ages (Holister 1990:25; Anderson 1974:154-155). Moreover, during this time period three cultural-economic zones formed which are still intact today in Western Europe. Anderson(1974:154-155) states that in the Northern European regions, "Roman rule had either never reached or had taken only shallow root". The central portion of western Europe became a blend of Roman and Germanic elements. The South retained the ancient legacy of antiquity. These three zones include those nations found today with the Northern, Blended and Southern drinking norms.

HYPOTHESES

Based upon the literature, two hypotheses were developed to test the model which suggests that modern western drinking norms have their roots in antiquity. The theory suggests that regions of western Europe which became Romanized, and retained attributes of Roman culture into modern times, would still have Latin based language, viticulture, and high wine and absolute alcohol consumption. In contrast those Germanic-Celtic cultures, largely untouched by Roman influence, would today still retain non Romance based languages, have high beer⁸ but low absolute alcohol consumption and a lack of viticulture. The blended cultures would have a mixture of languages and drinking preferences. Stated in the Null form: 1) there is no correlation between total per capita absolute alcohol, wine and beer consumption, language group, viticulture, and Roman provincial status; 2) total per capita alcohol, beer or wine consumption can not be predicted by language base, viticulture or Roman provincial status.

METHODS

For each Western European culture, the latest information which could be found concerning per capita consumption of various alcoholic beverages (FAO, 1987; Davies, 1984), its language group (Renfrew, 1987), presence or lack of viticulture (de Blij 1983), and its status as a former Roman province (Garnsey and Saller, 1987) was determined (see Table 1).

These cultural characteristics were used to calculate Pearson-Rho correlations for determining the association between per capita consumption of various beverages, language, viticulture and status as a Roman province. Numbers were assigned 1 for northern and 3 for southern characteristics. Variables including not being a Roman province, having a Germanic - Celtic/Germanic in Ireland -based language, and no commercial viticulture were coded as "1". Being a Roman province, having a Romance language and viticulture were coded "3". Nations exhibiting characteristics of both northern and southern Europe were coded "2". ie, UK and Germany for viticulture and positive provincial status (See table 1).

In addition to the Pearson-Rho calculations, the predictability of total per capita consumption of absolute alcohol, wine and beer from the remaining variables

was accomplished. All statistics were calculated using the Statistical Package for the Social Science (SPSS) program with a VAX computer.

RESULTS

Results (See Table 2) reveal a significant ($p < .001$) positive associations between provincial status, per capita alcohol consumption, wine drinking, language group, and viticulture. There is a significant ($p < .05$) negative association between beer consumption, viticulture and language group. In other words, there is a striking relationship between high alcohol consumption, wine drinking, viticulture and Romance language - characteristics of the Mediterranean norm - and being a former Province. In contrast those areas which were not former provinces tend to have low alcohol consumption, a lack of viticulture and Germanic based languages. (See Table 2)

Next the characteristics for each country were entered into a stepwise multiple regression analysis to predict total absolute alcohol, wine and beer consumption. Results in Table 3 reveal that Language and Roman provincial status account for 78% of the variability of absolute alcohol consumption. Wine consumption is predicted only by Language (75%). Beer consumption is predicted both by Language and Per Capita Alcohol consumption (51%). The other variables had no significant effect on predicting the model and were thus eliminated from the equation by the multiple regression procedure. (See Table 3)

In other words, from the examination of Tables 1, 2 and 3, it is apparent that high per capita absolute alcohol consumption can be predicted by having a Romance language and being a former Roman province. Conversely low per capita alcohol consumption is predicted by a Germanic language and lack of being a Roman province. High wine consumption is predicted by Romance language alone. High beer consumption can be predicted by having a Germanic language and low absolute alcohol consumption.

Thus, the Null hypothesis stating there was no correlation between language group, viticulture, per capita total alcohol and wine consumption and Roman provincial status was rejected. The hypothesis that total per capita, beer or wine consumption cannot be predicted by Roman provincial status, viticulture or language was rejected.

DISCUSSION AND CONCLUSIONS

The results of both the correlation and regression analyses give statistical support to the premise that modern western European drinking norms have their roots in antiquity. The data support both historical and archaeological analyses which suggest that the contemporary preference for grain based beverages, and low, but episodic, alcohol consumption in many Northern European nations reflects the drinking patterns and preferences of their Iron Age Germanic-Celtic ancestors. It also supports historical interpretations which imply that modern Southern European nations, and most nations which were Romanized by the expanding Empire, reflect Mediterranean Roman drinking norms in terms of high per capita, frequent wine consumption and the importance of viticulture to the culture.

These ancient drinking norms appear to have become ingrained in the social fabric of their nation to the point of influencing contemporary social policy. The ambivalent Northern countries have about twice as many alcohol control policy measures compared to those of most Southern nations (Davies and Walsh 1983:264). Although a high number of alcohol control policies are predicted by low absolute alcohol consumption, low alcohol consumption is not predicted by the number of alcohol control policies, only by low wine consumption (Engs 1992) which is a characteristic of non-Romanized cultures.

Because drinking norms appear to have deep roots within contemporary cultures, it is likely that some proposed international agreements related to social policy or prevention measures, concerning alcohol abuse, could be difficult to implement. For example, as part of an international trade agreement, if an age limitation for alcohol consumption throughout the European Community, or for that matter throughout the world, were proposed, it might not be acceptable, or even

enforceable, by those cultures that consider alcoholic beverages an essential part of the family meal even for children.

The world is daily becoming a smaller place. Because of increasing tourism and trade, differences in the western European drinking norms need to be understood in historical and cultural context. As Davies and Walsh (1983:286) have so aptly stated, "The important point is that different value positions are acknowledged, treated seriously and juxtaposed with careful consideration of empirical evidence". For some nations today, as part of international agreements, to coerce other nations to adopt their norms, would be an attempt to obliterate the ancient cultural differences. Moreover, it would be tantamount to an attack on that culture in much the same way the ancient Romans and Germanic Barbarians attempted to assault, occupy or control each other in antiquity. Ancient drinking norms are unlikely to be readily changed and differences need to be appreciated, recognized and openly discussed.

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ENDNOTES

1. Culture is defined by Heath "as a convenient short hand label that subsumes broad patterns of thinking and behaving that are manifested in daily life by individuals". In regards to alcohol these norms include consumption patterns and attitudes towards alcohol and its use (Heath 1990:251)
2. Secondary cultures spawned by European colonialism since the sixteenth century in other geographic areas of the world have tended to follow the patterns of the mother country. For example, Heath (1984:158) suggests that Argentina and Chili are culturally Romanized wine-drinking nations with little evidence of major alcohol-related social problems. In contrast North America and Australia/New Zealand are primarily beer drinking countries which exhibit public intoxication, have many perceived alcohol related problems and control measures regulating drinking.
3. All classical references are from Loeb Classical library translations unless otherwise stated. Cato I, XXIII XXV, XXXIX; Varro I; Pliny HN XIV 14.91; Columella III, XI, XII; Athenaeus X:426-427.
4. A sample of authors who made reference to Roman drinking from the early Republic until the end of the Empire included Athenaeus, Cicero, Juvenal, Lucretius, Macrobius, Ammianus Marcellinus, Martial, Ovid, Petronious, Plutarch, Pliny, Suetonous, Seneca, and Tacitus.
5. Rome, Roman and Romanization designate the cultural, legal, political, religious, social, urban and other influences and changes instigated by various aspects of the Roman Empire.
6. Appian GH. IV.7; Caesar BG. V.22.12; Diodorus Siculus V.26.3; Polybius (Hist. II.9; Pliny HN. XIV.29.149; Plutarch Cam.XLI.1-6; Strabo Geog. IV.5.4-5; Tacitus Germ. 22-23, Ann. I. 50-51)
7. The origins of modern anti-alcohol measures have their roots in radical Protestant groups which formed during the Reformation in the more Northern cultures. The

southern cultures retained Roman Catholicism which frowned upon drunkenness but considered alcohol as gift from God to be used in moderation (Austin 1985:130;147; Bainton 1945:49,52-53; Engs 1992).

8. Spirits replaced beer and ale as the most popular alcoholic beverage in the 17th and 18th Centuries A.D. in the Nordic cultures. However, it will not be calculated as a separate category in this paper because it is not germane to this study investigating drinking norms with roots in Classical and pre-Classical times. Beer, is the second most common beverage in these northern cultures (Smith and Hanham 1982:19) and has been drunk since antiquity generally in the form of ale. Spirit consumption, however, is included in the total per capita absolute alcohol data for this study.

Table 1: Ranking of Western European countries from lowest to highest according to total per-capita alcohol consumption. Also indicated are Per-capita consumption of wine and beer, spoken language, presence of viticulture and status as a Roman province.

Country	Per-capita consumption alcohol in liters/year ^a	Per-capita Consumption of beer, wine in KG/year ^a		Language Group ^b	Vine Growth ^c	Province ^a
		Wine	Beer			
Norway	5.7	4	46	Germanic	No	No
Sweden	7.1	9	46	Germanic	No	No
UK (Southern)	9.8	43	121	Germanic	No	No
Ireland	10.0	3	81	Germanic/ Celtic	No	No
Denmark	12.0	14	132	Germanic	No	No
Netherlands	12.1	13	87	Germanic	No	Germania/ Inferior
Germany	12.7	25	146	Germanic		
West of Rhine					Yes	Germania Superior
East of Rhine					No	No
Switzerland ⁺	13.3	43	69	Both	Yes	Raetia
Belgium	13.9	20	130	Both	No	Belgica
Austria	14.4	36	105	Germanic	Yes	Raetia Noricum
Italy	16.0	89	18	Romance	Yes	Roma
Spain	19.2	61	48	Romance	Yes	Terra Baetica
Portugal [*]	20.0	85	28	Romance	South central	Lusitania
France	20.0	94	44	Romance	South central	Lugdunensis/ Belgica/ Aquitania/ Narbonensis

a. Food Balance Sheets 1979 - 1981 Average FAO - United Nations: Rome, 1984

b. Renfrew, Colin. Archaeology and Language. Cambridge University Press: New York, 1987

c. Jan de Blij, Harm. Wine: A Geographic Appreciation. Rowman and Allanheld. Totowa, NJ, 1983, pp.134-15

d. Garnsey, Peter and Saller, Richard. The Roman Empire: Economy, Society and Culture University of California Press: Berkeley, 1987

+ Until recently considered a wine drinking country according to Smith and Hanham(1982) and Sulkunen(1976)

* Estimated

Table 2: Pearson correlation results between status as a Roman Province, total per capita alcohol consumption, wine consumption, beer consumption, language, and viticulture.

	Province	Total Alcohol Consumption	Wine	Beer	Language	Viticulture
Province	1.0	.8*	.8*	-.2	.7*	.7*
Total alcohol		1.0	.8*	-.3	.8*	.8*
Wine			1.0	-.5	.8*	.9*
Beer				1.0	-.6+	-.5*
Language spoken					1.0	.9*
Vine growth						1.0

 * p < .001 + p < .05

Table 3: Results of Regression Analysis from variables in Table 1 to predict total absolute alcohol, wine and beer consumption.

Per capita absolute alcohol consumption

Variables left in the equation	Coefficient	SE	beta	Adjusted R ²	t
Language (Romance)	24.7	9.4	.50	.69	2.6 ⁺
Roman province (yes)	24.7	10.0	.47	.78	2.5 ⁺
(Constant)	38.1	15.5			2.4 ⁺

Wine consumption

Variables left in the equation	Coefficient	SE	beta	Adjusted R ²	t
Language (Romance)	30.9	4.8	.88	.75	6.4 [*]
(Constant)	-14.6	9.3			-1.5

Beer consumption

Variables left in the equation	Coefficient	SE	beta	Adjusted R ²	t
Language (Germanic)	-61.9	16.7	-1.34	.51	-3.7 ⁺
Absolute alcohol consumption (Low)	.8	.3			2.3 ⁺
(Constant)	79.6	27.0			2.9 ⁺

+ p <.05 * p <.001

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