

CHAPTER II

Alcohol

2.1 Brief history of the global use of alcohol

The origins of alcohol beverages are ambiguous, but there are historical indications originating the craft of winemaking to the wild grape regions of the Middle East. There can be found implications in the Bible about alcohol use, such as in Genesis 9:20 which claims that Noah had planted a vineyard in Ararat, an area which today belongs to eastern part of Turkey.¹

One of the earliest civilizations associated with the general use of alcohol were the ancient Egyptians. It is believed the brewing existed in ancient Egypt around 3,500 BC. Alcohol consumption was very common among the Egyptians, where people at all level of society drank mainly beer, and in great quantities. The beer of the ancient Egyptians was not the same beverage as modern beer, ancient Egyptian beer was commonly brewed by women, alongside other chores of the household, and was a beverage of more nutritious value than modern beer, containing considerable amount of calories and vitamins. Another indicating factor of the Egyptians love of alcohol could be that one of the popular gods of

¹ Thomas Babor. (1986). *Alcohol, customs and rituals*. New York: Chelsea House Publishers. Page 1.

the ancient Egyptians was Osiris, known as the god of nature, he was also associated with wine, and he was worshiped throughout the country.²

The craft of wine making may have reached the Greece about 2,000 B.C. Among the first alcohol beverages to be commonly used in Greece, was a drink called Mead, which was a fermented beverage, made from honey and water. By the period around 1,700 B.C. winemaking is considered to be common among the ancient Greeks, and during the following thousand years, usage of wine became a commonplace aspect of Greek society. These social aspects of wine usage could be found in religious rituals, for medical purposes, became a way of means to display hospitality and was it a part of daily dining.³

In Asian culture, the Chinese are considered one of the pioneers on the use of alcohol, unlike the wine culture spreading through out the Mediterranean region, the Chinese people drank mostly distilled spirits, some claim the Chinese to be the inventors of distilled spirits. Evidence such as inscriptions on bones, tortoise shells describing offerings of millet wine and tulip-flower wine to the dead, these ancient findings have been dated to as early as the sixteenth century B.C. Many of these documents on the usage of alcohol in ancient china point to the importance of alcohol in religious rituals. The link between alcohol and

² Richard W. Unger (2007). *Beer in the middle ages and the renaissance*. Philadelphia: University of Pennsylvania Press. Page 18.

³ Thomas Babor. (1986). *Alcohol, customs and rituals*. New York: Chelsea House Publishers. Pages 2-3.

religious rituals was specifically in rituals relating to the sky, earth, deceased ancestors and other spirits.⁴

Alcohol has been considered to be an important variant in Chinese medicine, in fact the Chinese character for “alcohol” and “medicine” share the same root, there is an old Chinese proverb which says that alcohol is the best of all medicines. There can be found ancient Chinese scriptures on alcohol, one of which was called *The Yellow Emperors Canon of medicine*, which contained a chapter describing how to use alcohol to cure a variety of sicknesses. Another ancient scripture; *Compendium of Materia Medica*, written by Ling Shizhen of the Ming Dynasty, has a list of seventy nine different Chinese alcohol beverages, displaying their usefulness, some for treating specific illnesses and other for nourishment.⁵

The Chinese also have a history of using alcohol beverages in other segment of society, as in other societies alcohol played a large role in expressing hospitality, and was considered an essential ingredient at events like weddings and funerals. Moreover there is also a tendency to use alcohol beverages to stimulate inspiration.⁶ Old Chinese scriptures also mention the misuse of alcohol, as an old Chinese proverb says:

⁴ Xiao Jiacheng. (1995). China. in D. B. Heath, *International handbook on alcohol and culture* (pp.42-50). Westport: Greenwood Press. Page 42.

⁵ Xiao Jiacheng, X. (1995). China. In D. B. Heath, *International handbook on alcohol and culture* (pp.42-50). Westport: Greenwood Press. Page 47.

Xiao Jiacheng,. (1995). China. In D. B. Heath, *International handbook on alcohol and culture* (pp.42-50). Westport: Greenwood Press. 43-45.

"First a man takes a drink, then the drink takes the drink and then the drink takes the man"⁷

In the Indus Valley of India, the distillation and fermentation of alcohol are believed to have been practiced as early as 2000 BC. Clay relics have been discovered in the archeological city of Taxila, which ensemble into a set of complete distilling instruments.⁸ Hindu mythological descriptions from the same period, tell of the consumption of alcohol drinks like soma or somrasa and sura, used by various groups of society for their tranquillizing and euphoriant effects. Somawasa was another alcohol beverage of the ancient Indian civilization, but it was reserved for the upper class and the Gods.⁹

Alcohol use was not well seen in ancient India, but there were exceptions from the rule as in other societies. Descriptions of alcohol use in ancient India can be found in the ancient Indian sacred collection of Vedic Sanskrit hymns, called the Rig Veda. There it is recommended that strong alcohol beverages should be served to guests as they enter a new house or when a bride first enters her newly wed husband's home. The Kshatriya Warrior class and the Trading community, the Vaisyas, were allowed to consume alcohol beverages, brewed from honey and mahua flower or jaggery.

⁷Peterson, J. V., Nisenholz, B., & Robinson, G. (2003). *A nation under the influence: America's addiction to alcohol*. Boston: Allyn and Bacon. Page 22.

⁸WHO. (2003). *Get high in life without alcohol*. South East Asian Regional Office. Bangalore: WHO. Page 2.

⁹WHO. *Historical Background*. Retrieved 4. Oktober 2010 from <http://www.searo.who.int/who.int/LinkFiles/Facts and Figures ch1.pdf>

In an ancient text from the 400 BC, the era of the first great Indian emperor Chandragupta, there are description on how The Mauryan governments regulated the sale and taxation of alcohol beverages and the conduct of bars or tavern in almost every village.¹⁰

In the era of the colonization of Southeast Asia by European nations brought forth changes, in the societies in many forms. One of the economical changes was in the form of manufacturing alcohol. The influence of the European colonizers affected the local culture, in many ways, one of them by introducing their culture of alcohol usage, mostly influencing the native groups that had the closest contact with their colonizers. The British allowed the setting of a distillery in India in the year 1862, taxing the manufacturing and sale of the alcohol beverages, becoming an important source of revenue for the British Crown.¹¹

The rise of the Roman Empire saw further spreading in the use of alcohol, for the Romans alcohol beverages where a necessity with food. They had accrued a taste for various alcohol beverages from different parts of their Empire, such as, Egypt, Judea, Greece, Liberia and southern France and they mostly consumed wines, beer and other fermented drinks.¹² The alcohol consumptions of the

¹⁰ WHO. (2003). *Get high on life without alcohol*. South East Asian Regional Office. Bangalore: WHO. Page 2.

¹¹ WHO. *Historical Background*. Retrieved 4. Oktober 2010 from <http://www.searo.who.int/>: [www.searo.who.int/LinkFiles/Facts and Figures ch1.pdf](http://www.searo.who.int/LinkFiles/Facts%20and%20Figures%20ch1.pdf)

¹² Atanas Ionchev. (1998). Central and Eastern Europe. In M. Grant, *Alcohol and emerging markets: patterns, problems, and responses* (pp.177-202). Philadelphia: Brunner/Mazel. Page 179.

Romans was very common and the general alcohol consumption in Rome at the start of Christianity is estimated to have been about 1,8 million hectoliters on an annually, which is about a half a liter of alcohol consumed for every individual of the city every day of the year.¹³

The birth of Christianity in Europe saw no dramatic changes in the attitudes toward alcohol. According to the teachings of the Catholic Church alcohol was a gift from God and meant to be used in moderation for enjoyment and health, while drunken behavior was considered a sin. This attitude did not alter with the uprising of the protestant reformation (1512). The production and disputation grew in early modern period in Europe (from the 16th century). Although spirits were mostly used for medical purposes, it has been claimed on the consumer and production development of distilled alcohol in Europe of that period, that;

***"The sixteenth century created it; the seventeenth century consolidated it; the eighteenth popularized it"*¹⁴**

According to Gregory Austin, author of the book, *Alcohol in Western Society from Antiquity to 1800*, drunkenness was an accepted behavior in the eighteenth century, but industrialization changed these attitudes towards

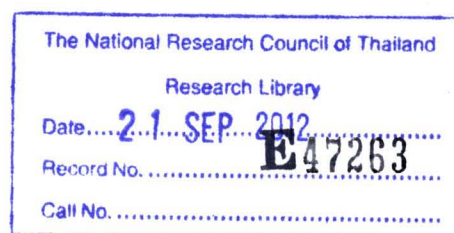
¹³ Jack S. Blocker, David M. Fahey & R. Ian Tyrell. (2003). *Alcohol and temperance in modern history*. California: ABC-CLIO. Page 667.

¹⁴ Fernand Braudel. (1979). *Capitalism and material life, 1400-1800*. London: Harper Colophon. Page 170.

drunkenness changed, when the need for punctual and reliable workers became apparent.¹⁵

In the colonial period a new use for alcohol was introduced. For the European colonial powers used alcohol intentionally to control the annexed colonial labourers. This use of alcohol was implemented in colonies both in the Asian and African colonies. The goal was to attract and addict labour forces in tin mines, rubber and palm oil plantations. It has been claimed that the British had introduced alcohol in India and Opium to the Chinese to ensure the control of domestic labour.¹⁶

2.2 Nature of alcohol



Alcohol has multiple functions in a community, for it can at the same time be categorized as food, drug and chemical, and can be rendered with various elaborated cultural symbolic meanings. In today's modern society alcohol products are usually looked upon as beverages served with meals or associated with socialization and enjoyment.¹⁷ Others categorized alcohol as a drug or a depressant, for the alcohol is essentially a toxic substance, poisonous to the human body, , and once the substance is ingested the body immediately starts to

¹⁵ Gregory Austin. (1985). *Alcohol in Western Society from Antiquity to 1800*. Santa Barbara: ABC -Clio Information Services. Page xxv.

¹⁶ David Jerningan. (1999). The Global expansion of alcohol marketing. *Journal of public Health Vol.20. No.1.* (pp56-80). Page 63.

¹⁷ Thomas Babor. (2003). *Alcohol: No ordinary commodity*. New York: Oxford Univeristy Press. Page 16.

dispose of it, in a worst case scenario drinking too much alcohol at one can kill a person.¹⁸

There are two main ways of producing alcohol beverages; fermentation or distillation. Famous ethnologist and author Desmond Morris believes that men discovered the effects of ingesting juice of fermented fruit after witnessing animals eating large quantity of fermented fruit followed by a strange reaction. It is known that wild elephants sometimes get intoxicated after eating fermented fruit.¹⁹ The process of fermentation of wine is a process that increases the chemical reaction within the substance, which turns grape juice into an alcoholic beverage. Yeast, a fungus with appetite for sugar causes the fermentation, which happens when the yeast interacts with sugars in the juice and create ethanol, commonly known as ethyl alcohol, and carbon dioxide.²⁰ In simple terms fermentation is the process of winemaking.

The origination of distillation is not clear. Some scholars such as Dr. Xiao Jiacheng claim that the technique is originated in China.²¹ Others such as, Dr. J. Vincent Peterson claim that distillation is an Arab invention, dated back to about 800. AD. The process of distillation serves to get the percentage of the

¹⁸ Vincent J. Peterson, Bernard Nisenholz & Gary Robinson. (2003). *A nation under the influence: Americas addiction to alcohol*. Boston: Allyn and Bacon. Page 19 & 23.

¹⁹ Social Issues Research Center. (1998). *Social and cultural aspects of drinking; A report to the Amsterdam Group*. Oxford: Social Issues Research Center. Page 1.

²⁰ Wikipedia. *Fermentation Wine*. Retrieved 31. August 2010 from wikipedia.org: [http://en.wikipedia.org/wiki/Fermentation_\(wine\)](http://en.wikipedia.org/wiki/Fermentation_(wine))

²¹ Xiao Jiacheng. (1995). China. In D. B. Heath, *International Handbook on Alcohol and Culture* (pp. 42-50). Westport: Greenwood Press. Page 42.

alcohol content to a higher level, this is done by boiling the alcohol away from the sugar, leaving pure alcohol, which is then diluted with water for it is too strong to drink.²²

2.2.1 Food

Alcohol beverages have been considered to be a part of dining for thousands of years. Wine culture in most societies often align specific wines with specific foods that make a special combination such as wine and cheese, red wine and steak and beer and peanuts. Alcohol can technically be classified as food, because it contains a considerable amount of calories. However the calories in alcohol are so called “empty calories”, meaning that there is little or no nutrition benefits from ingesting an alcohol beverage. Furthermore alcohol can hinder the metabolism of other food with actual nutrition value. Even though alcohol supplies individuals with a boost of energy, it is most often a short-term effect.²³

2.2.2 Drug

Alcohol is a mind altering and a toxic substance in terms of the direct and indirect effects it has on human body. In other words alcohol is a poisonous substance, if an individual drinks too much alcohol in a range of a very short period it can cause death. Like most drugs, alcohol can have positive effects

²²Vincent J. Peterson, Bernard Nisenholz & Gary Robinson. (2003). *A nation under the influence: Americas addiction to alcohol*. Boston: Allyn and Bacon. Page 18.

²³Vincent J. Peterson, Bernard Nisenholz & Gary Robinson. (2003). *A nation under the influence: Americas addiction to alcohol*. Boston: Allyn and Bacon. Page 18.

when consumed in moderate doses. The main attraction of the effects of alcohol is most likely the gradual dulling of the brain and the nervous system. Alcohol normally affects the part of the brain that regulates inhibitions. A few drinks can therefore make the drinker feel more sociable, creative or brave.²⁴

The effects most often caused by the consumption of alcohol are often individually based and dose related, and involves a short time restrain of normal bodily functions, such as slurred speech and the inability to drive a car. Intoxication, whether it is on a regular or an irregular bases is the key factor in the often-unfavorable consequences of alcohol consumption.²⁵

²⁴Vincent J. Peterson, Bernand Nisenholz & Gary Robinson. (2003). *A nation Under the Influence: Americas Addiction to Alcohol*. Boston: Allyn and Bacon. Pages 23-25.

²⁵ Thomas Babor. (2003). *Alcohol: No ordinary commodity*. New York: Oxford Univeristy Press. Pages 15-17.

2.2.3 Chemical

There are a few different types of alcohol attainable. The most popular type of alcohol is ethanol, which has been produced and consumed as fermented or distilled alcohol beverages for thousands of years. Ethanol is a clear and flammable liquid and has other practical uses than just as a beverage. Ethanol is generally used as a paint solvent, fuel for cars and raw material in the chemical industry. Ethanol which is meant to be used in industry, usually contains additives that make it unfit for oral consumption, even poisonous.²⁶

2.3 The global burden of alcohol

The problems associated with alcohol consumption are numerous and usually fall in the category of being social, economical or health related. Among the widespread negative social effects of alcohol consumption and abuse of alcohol are violence, low worker productivity, child and spousal abuse, homelessness and school failure.²⁷ Some developing societies, especially in the rural parts of the poorer societies, have seen alcohol consumption contribute to a kind of a poverty trap, with the increased social acceptability of alcohol consumption and accessibility in the poorer parts of the countries. When the man of the household becomes dependent on alcohol, it can lead to a

²⁶Vincent J. Peterson, Bernand Nisenholz & Gary Robinson. (2003). *A nation under the influence: Americas addiction to alcohol*. Boston: Allyn and Bacon. Page 22.

²⁷Vincent J. Peterson, Bernand Nisenholz & Gary Robinson. (2003). *A nation under the influence: Americas addiction to alcohol*. Boston: Allyn and Bacon. Pages 177-179.

significantly larger portion of the family budget being spent on alcohol beverages instead of other necessities, like food, clothing or education for the children.²⁸

The healthcare related harm caused by alcohol ranges from various forms of physical harms to mortality, often as a result of accidents at workplace, domestic violence, and road traffic injury or transmission of sexual transmitted diseases like HIV. The World Health Organization (WHO) claims that there is a relationship between alcohol consumption and more than 60 types of disease and injury. Alcohol is estimated to cause about 20-30% of worldwide of esophageal cancer, liver cancer, and cirrhosis of the liver, homicide, epilepsy, and motor vehicle accidents. Alcohol is believed to cause 1.8 million deaths worldwide (3.2% of total) and 58.3 million (4% of total) of disability. WHO estimates that about 76.3 million persons have alcohol disorders in the world.²⁹

2.3.1 The disease concept

Even though alcohol related problems have followed humankind for a long time the fact remains, that we do not know fully how to define the problem. Some say alcohol problems are to do with a moral weakness or a

²⁸ Ian Newman. (2004). Globalization and Alcohol. *Executive Journal* , 54-56. Page 54.

²⁹WHO. *Management of substance abuse - alcohol*. Retrieved 6. February 2010 from http://www.who.int/substance_abuse:
http://www.who.int/substance_abuse/facts/alcohol/en/index.html

personality defect, other say it to be a lack of spirituality. And then there is the concept of the disease.³⁰

A Swedish physician named Magnus Huss was the first to systematically classify the harm attributable to alcohol consumption disease in 1849. Huss formulated the term alcoholism and used it to describe what he considered to be a chronic disease.³¹

The concept of alcoholism as a disease was embraced in the late 1930's by Alcoholics Anonymous, a self-help group originated from The United States that addressed the helping individuals who had lost control of their life, because of compulsive alcohol drinking. In the opening chapter of the AA book, sometimes referred to as the Big book. Dr. William D. Silkworth, director of Charles B. Towns Hospital for drug and alcohol addictions in New York city in the 1930s and supporter of AA wrote the following description of alcoholism in the Big book, calling alcoholism an allergy of the body or a disease;

"We believe, and so suggested a few years ago, that the action of alcohol on these chronic alcoholics is a manifestation of an allergy; that the phenomenon of craving is limited to this class and never occurs in the average temperate drinker. These allergic types can never safely use alcohol in any form at all; and once having formed the habit and found they cannot

³⁰ J. Vincent Peterson, Bernard Nisenholz og Gary Robinson, *A nation under the influence: Americas addiction to alcohol* (Boston: Allyn and Bacon, 2003). Page 79

³¹Wikipedia. (12. September 2010). *E. Morton Jellinek*. Retreved 16. September 2010 from Wikipedia.org:
[http://en.wikipedia.org/wiki/E. Morton Jellinek](http://en.wikipedia.org/wiki/E._Morton_Jellinek)

*break it, once having lost their self-confidence, their reliance upon things human, their problems pile up on them and become astonishingly difficult to solve."*³²

Getting the medical community to accept alcoholism as a disease was a complicated matter, there was though a growing movement to push the concept alcoholism as a disease in to get acknowledgement from the professional community. By the year 1940 at least thirty-nine different diagnostic systems had been introduced for alcoholism. Elvin Merton Jellinek a biostatistician, physiologist, and an alcoholism researcher, put forth a groundbreaking theory of subtypes of alcoholism, where he associated the subtypes with different degrees of physical, psychological, social and occupational impairments.³³

Defining alcoholism has been a highly controversial matter, alcohol researchers are not autonomous on the concept of disease, there are controversies of if it is a mental or a physical disease, other claim it a behavioral problem or a lack of will power, which can be treated with behavioral therapy, and other sects claim alcoholism to be a spiritual sickness, or lack of god.

In the first edition of the Diagnostic and Statistical Manual of Mental Disorders, published by the American Psychiatric Association in 1952,

³²Alcoholics Anonymous. (2001). *Alcoholics Anonymous (Big Book)*. New York: Alcoholics Anonymous World Services Inc. Page xxviii.

³³Vincent J. Peterson, Bernard Nisenholz & Gary Robinson. (2003). *A nation under the influence: America's addiction to alcohol*. Boston: Allyn and Bacon. Page 99.

alcoholism was categorized as a personality disorder along with homosexuality and neurosis.³⁴

The concept of alcohol dependence syndrome was put forward in 1976 by a group of experts working for The World Health Organization.³⁵ The new concept had a new conceptualization of a core of indicators related to alcohol dependency. It was noted in the new concept that an individual did not have to have dependence to alcohol to experience alcohol related problems. However an individual with dependence on alcohol was more likely to experience harm from the use or abuse of alcohol.³⁶ WHO constructed six variable diagnostic criteria called ICD-10 with addiction diseases as seem below:

Table 1 , ICD-10 diagnostic criteria for dependence

1.	Difficulties in controlling substance-taking behaviour in terms of its onset, termination, or levels of use
2.	A strong desire or sense of compulsion to take the substance;
3.	A physiological withdrawal state when substance use has ceased or have been reduced, as evidenced by: the characteristic withdrawal syndrome for the substance; or use of the same (or closely related) substance with the intention of relieving or avoiding withdrawal symptoms;
4.	Evidence of tolerance, such that increased doses of the psychoactive substance are required in order to achieve effects originally produced by lower doses (clear examples of this are found in alcohol- and opiate-

³⁴Vincent J. Peterson, Bernand Nisenholz & Gary RobinsonG. (2003). *A nation Under the Influence: Americas Addiction to Alcohol*. Boston: Allyn and Bacon. Page 99.

³⁵WHO. *Management of substance abuse*. Retrieved 29. Agust 2010 from who.int: http://www.who.int/substance_abuse/terminology/who_lexicon/en/

³⁶Thomas Babor. (2003). *Alcohol: No ordinary commodity*. New York: Oxford Univeristy Press. Page18.

	dependent individuals who may take daily doses sufficient to incapacitate or kill non-tolerant users)
5.	Progressive neglect of alternative pleasures or interests because of psychoactive substance use, increased amount of time necessary to obtain or take the substance or to recover from its effects;
6.	Persisting with substance use despite clear evidence of overtly harmful consequences, such as harm to the liver through excessive drinking, depressive mood states consequent to periods of heavy substance use, or drug-related impairment of cognitive functioning; efforts should be made to determine that the user was actually, or could be expected to be, aware of the nature and extent of the harm.

Source; WHO.³⁷

Alcohol Dependency syndrome was recognized in the Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM IV) of the American Psychiatric Association in 1994 which in turn have their own definition of alcohol dependency with similar diagnostic criteria as ICD -10.³⁸

In spite of the growing acceptability of the alcohol dependency as a disease, there are other models that have different approaches, and some of them have a following in the professional community. One of the more recognized is, The Public Health Model, which lays out alcohol problem from three different dimensions. Firstly there is the agent or the alcohol. Secondly, the host or the alcoholic and thirdly the environment. Another well recognized approach to the alcohol problem is the spiritual model. It is often affiliated with

³⁷WHO. *Dependence syndrome*. Retrieved 29. Agust 2010 from who.int: http://www.who.int/substance_abuse/terminology/definition1/en/

³⁸American psychiatric Association. (1994). *Diagnostic and statistical manual of mental criteria from*. Wasington: American psychiatric Association.

Alcoholics Anonymous, for even so the organization are followers of the disease concept, they firmly believe that to accomplish full recovery from the "disease" the individual is in need of a spiritual awakening.³⁹

³⁹ J. Vincent Peterson, Bernard Nisenholz og Gary Robinson, *A nation under the influence: Americas addiction to alcohol* (Boston: Allyn and Bacon, 2003). Page 81 & 87.