

The Influence of Wine Culture in Iranian Architecture and the Region

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INTRODUCTION

If we accept that architecture results from the culmination of people's social habits and lifestyle, we must first present a brief picture of the essentials of the history of wine-drinking habits of the peoples of the Iranian plateau. Wine has been a part and parcel of the Iranian culture from mythology to the present, starting with Jamsheed who is bestowed with the discovery of wine.¹ Moving to the time of the Avesta, we find that wine was considered to be a health-giving drink. It was permitted among the priesthood² and it was even prescribed as nourishment to ladies in their accouchement.³ In the Gāhambār festivities, in honour of creation, wine was mentioned as meritorious and part of the suggested menu.⁴ The Pahlavi literature recommended the drinking of wine, especially "on the day of Ohrmazd drink wine and make merry",⁵ but "drink wine in moderation, for whosoever drinks wine immoderately falls into many a sin",⁶ particularly if it depraved the drinker from the edicts of the "good words, good thoughts and good deeds".⁷

Some general observations on the use of wine are of importance, as they reflect on architectural design:

¹ Jivanji Jamshedji Modi, *Wine Among the Ancient Persians: A Lecture*, Bombay, 1888, pp. 2–3.

² Vendidad, XIV., 17.

³ Ibid., V., 52.

⁴ Modi, op. cit., p. 4.

⁵ Ādurbād, son of Mahrspand, "Counsels of Adarbad Mahraspandan", in *Pahlavi Texts*, ed. J.D. Jamasp-Asana, Bombay, 1897, pp. 58–71: 119.

⁶ Ibid., pp. 58–71: 112.

⁷ *Dadistan-e Dini*, ch. XL., XLI.; Modi, op. cit., p. 12.

1. Old wine was held in high esteem which is made evident in a remark by Ādurbād who compares an old friend to old wine.⁸ The consumption of good old wine required high-quality and sometimes extensive cellar facilities.
2. Wine drinking was often accompanied with music and dance,⁹ which necessitated sophisticated acoustical treatment of the interiors.
3. Contrary to European practice, wine was traditionally consumed in after dinner assemblies in Iran. This affected the layout and the design of the reception areas. The tradition of after-dinner drinking of wine must have arisen from practical social considerations, both before and after the official prohibition by the Islamic religion. Dinners, of necessity, included a diverse cross-section of the society. When public, they included devout non-drinking Muslims. When private, they comprised of an equally diverse cross-section of friends and family members who obviously could not have been refused or eliminated from the dinner ceremony. Both the hosts and the guests in either of the occasions might have had good reasons to have been averse to the consumption of wine at dinner. Consequently, while all were welcome to dinner, only those who were deemed fit for participation in the more “intimate” or “official” after-dinner wine drinking sessions were invited for the event. This tradition, which predated Islam, was observed in the royal banquets of the Islamic period when the Muslim clergy and the dignitaries who considered wine drinking adverse left before the initiation of the after-dinner drinking sessions.¹⁰

The specific mention of “after-dinner” as an occasion for drinking and toasting on several occasions by various authors of different epochs is a clear indication of a social behaviour which spanned several millennia. As such, it obviously affected the layout and the architectural design of the dining and the reception areas which had to be necessarily divided into two separate spaces. The fabrication of many goblets that did not have flat bases is further testimony to this. A wine goblet used while dining

⁸ Ādurbād, op.cit., pp. 58–71: 101; trans. from R.C. Zaehner, *The Teachings of the Magi*, London, 1956.

⁹ A. S. Melikian-Chirvani, “The Iranian *bazm* in Early Persian Sources”, in *Banquets d’Orient*, ed. Rika Gyselen, Res Orientales IV, Bures-sur-Yvette, 1992, pp. 95–120.

¹⁰ Jean Chardin, *Voyages ... en Perse et autres lieux de l’Orient ...*, ed. L. Langlès, Paris, 1811, vol. 8. pp. 473–76; idem, *A Journey to Persia: Jean Chardin’s Portrait of a Seventeenth-century Empire*, tr. and ed. Ronald W. Ferrier, London-New York, 1996, p. 67.

must have a flat base, otherwise it cannot sit on the table while the hands are used for eating. In an after dinner wine-drinking session, the goblet may be held in the hand for long periods, consequently the flat base is not an absolute necessity.¹¹

4. The most important factor which affected the architecture and landscape gardening of Iran from time immemorial was the creation of a balanced relationship between the indoor and the outdoor environment in answer to the varied local climatic conditions, culminating in extraordinary columned porticos (*eyvāns*) and open or semi open garden pavilions and bridges which did not cater for traffic alone, but were particularly designed for picnics and wine drinking. Arid climatic conditions led to exceedingly imaginative use of ponds, water canals and hydrological technology. All these provided the necessary environment for the enjoyment of wine.

Sources

Drawing information from a single source category often gives inaccurate or warped information particularly on wine culture. Consequently, we have been adamant in conferring with a variety of source materials in order to try and achieve a more balanced and realistic presentation. As a result, we have delved into the quintessence of archaeological, anthropological, graphical and textual data. The interest for wine in ancient Iran is apparent not only in material culture such as decanters, jars and cups of exceptional design but also in the written material,¹² poetry in particular,¹³ architecture, sculpture, book illustrations, miniatures and murals.

¹¹ The horn-shaped goblets of Russia were mainly used for Vodka.

¹² Richard T. Hallock, *Persepolis Fortification Tablets (PF)*, Chicago, 1969 and later works; Philippe Gignoux, "Matériaux pour une histoire du vin dans l'iran ancien", *Matériaux pour l'histoire économique du monde iranien*, ed. Rika Gyselen and Maria Szuppe, Paris, 1999, pp. 43–44.

¹³ The Data-base of the Iranian Academy of Persian Language and Literature which includes over 800 volumes of historical and literary primary sources (I must thank my friend Professor Ali Ashraf Sadeghi for the access to this excellent data-base, and also the collaboration of Dr. Amirinejad who was kind enough to assist in the extracting of the required information), and the data-base of the *Kitāb-khāna-ye Elektronik-e Naẓm va Naṭh-e Fārsi, DORJ 3* which is comprised of 178 volumes of literary primary sources give an admirable overview of wine culture in Iran of the Islamic period.

Our oldest written sources on wine culture in ancient times are Sumerian from around 3000 BCE. The Greek and Roman historians give contradictory and unreliable accounts of the traditions of wine in ancient Iran, but leave no doubt about its extensive presence.

The Scope of the Present Paper

The extent of influence of wine culture in Iranian architecture is found in all levels of wine production and manifests itself in the following building types:

1. Architecture of Wine Making and its Equipment
2. Architecture of Wine Storage
3. Popular Public Wine-Drinking Locations:
 - 3.1. Nature
 - 3.2. Garden Pavilions
 - 3.3. Bridges
 - 3.4. Public Wine-Houses: Taverns, Inns, Wine-shops and Wine Culture
4. The Influence of Wine Culture on Architectural Acoustics

1. ARCHITECTURE OF WINE MAKING AND ITS EQUIPMENT

Archaeological investigations have shown that in fact it was in Iran that the earliest wine was made in world history.¹⁴ The earliest evidence of wine is from a shard (ca. 7,000 years old) found in Hajji Firuz Tepe, a Neolithic village in Iran's northern Zagros Mountains; for winemaking, Godin Tepe of the fourth millennium BCE. The partly excavated Room 2 of the Godin Tepe contained several artefacts which are considered to have been likely implements for the making of wine. These include whole or nearly complete vessels on a poorly preserved floor which indicates *in situ* deposit. Other finds included a funnel (which could have been used with the aid of a textile filter

¹⁴ Patrick E. McGovern and Rudolph H. Michel, "The Analytical and Archaeological Challenge of Detecting Ancient Wine: Two case Studies from the Ancient Near East", in *The Origins and Ancient History of Wine*, eds. Patrick E. McGovern, et al., London-New York, 2003/[1996], pp. 64–65.

to press the juice from grapes), several jars with or without wine residues,¹⁵ a large heavy lid and part of a built bin (which might have functioned for the crushing of the grapes or a settling basin), all of which may have been used in winemaking.¹⁶ The collection of finds and its architectural location with direct access to the entrance of the building ensemble (which separated the messy and malodorous process of winemaking from the rest of the buildings) supports this room's use as a winemaking installation.

Grape presses dating to the late third millennium BCE have been found at Titriş Höyük in south-eastern Anatolia.¹⁷ Very ancient winemaking involved the pressing of the wine in a small basin or funnel by an object such as an earthen lid. The need for greater quantities gave rise to large basins and the traditional system of treading, a process which lasted several millennia. A further development was the crushing of the grapes by a windlass. In Roman times, the pressing of the grape took place, according to Cato, in a special room which included an elevated concrete platform that contained a shallow basin with raised curbs. It was shaped with a gentle slope at the bottom which led to a run off point. Long wooden beams attached to a windlass helped press the crushed grapes.¹⁸ This relatively expensive type of wine making was limited to the larger estates.

Tavernier gives a good description of wine and wine-making in Shiraz. He says that the Iranians have a great deal of expertise in the preservation of freshly picked grapes. He claims that they preserve the grapes so well that grapes picked eight months before appear to have been picked eight days previously. He reports of a vintage year in 1666 CE. when a goodly amount of wine was produced and exported.

¹⁵ The basis for identifying the grape residues as wine was driven from the specific features of the jars and their archaeological contexts.

¹⁶ Virginia R. Badler, "The Archaeological Evidence for Winemaking, Distribution and Consumption at Proto-Historic Godin Tepe, Iran", in *The Origins and Ancient History of Wine*, op. cit., pp. 51–52.

¹⁷ Mark Berkowitz, "World's Earliest Wine", in *Archaeology*, vol. 49.5 (September/October, 1996).

¹⁸ J. Robinson, ed., *The Oxford Companion to Wine*, 3rd Ed., Oxford, 2006, p.545.

2. ARCHITECTURE OF WINE STORAGE

The Neolithic period from about 8500–4000 BCE is associated with the necessary preconditions required for the making of wine.¹⁹ Fairly large amounts of resinated wine were being produced in the Neolithic period at the site of Hājjī Firuz Tepe in the northern Zagros Mountains of Iran, south-west of Lake Urmia.²⁰ The Hājjī Firuz Tepe comprised of a well made mud-brick building dated by radiocarbon determination to about 5400–5000 BCE, which included a large living room, a kitchen, and two storage rooms. Six 2.5 gallons (9 litres) wine jars were embedded along one of the walls in the earthen floor of the kitchen.²¹

Despite rightful doubts of modern oenologists that ancient wine would not have aged well for long owing to deficiencies in preparation and storage compared to modern methods, we have examples of wine-cellars from different historical periods with continuous improvements in their design. A few examples of wine storage and wine cellars of various types in the ancient times, some of them of considerable size, give us a good overview of the evolutionary process in their architecture.

The storage of wine in the early days of wine-making was above ground. The next stage was probably the sinking of the jars into the floors.

As the sense for older wine developed, further attention for the improvement of systems of aging wine became of importance which in turn led to the concept of the specialized wine-cellars quite early in history. These are termed *passive* wine-cellars, which are not mechanically climate-controlled, but rely on careful orientation and location, wall thickness, light control and other factors for temperature and humidity control. In a modern so called *active* wine cellar, both temperature and humidity are maintained by mechanical systems. The modern consensus for the optimal temperature of a wine cellar is 13–15 centigrade and a humidity of 50–70%.

¹⁹ Patrick E. McGovern, “foreword”, in *The Origins and Ancient History of Wine*, op. cit., p. ix.

²⁰ Patrick E. McGovern, U. Hartung, V. R. Badler, D. L. Glusker, and L. J. Exner, “The Beginnings of Winemaking and Viniculture in the Ancient Near East and Egypt”, *Expedition*, 39/1 (1997), pp. 3–21; Patrick E. McGovern, “Vin Extraordinaire”, *The Sciences*, 36/6 (1996), pp. 7–31.

²¹ Several pottery vessels, possibly for purpose of cooking, were also found in this room; Patrick E. McGovern, *Ancient Wine: The Search for the Origins of Viniculture*, Princeton-Oxford, 2003, p. 67.

It is interesting to note that some ancient architectural designs of wine cellars realized the importance of climate control at an early date and placed the entrance of the cellar facing north to protect it from direct sunlight.

A free standing wall in front of the entrance to the wine storage room (room 20) at Godin Tepe, which was considered by archaeologists to have been built for privacy,²² is likely to have been constructed to shield the southerly oriented entrance from direct sun rays. The construction of this wall is likely to have been an afterthought, which is corroborated by its non-alignment with the building it hides.

The first unquestionable reference to wine cellars, as far as we know, is found in a text from the middle of the twenty-third century BCE in which the king of Lagaš, Uru-KA-gina boastfully claims of having been the first to “build the beer cellar, where they brought him wine from the Mountain, in great urns.”²³ We have no information on its design.

The royal palace of Mari which dates back to the eighteenth century BCE contained several long, narrow storage rooms some of which must have been used as wine cellars. According to the written evidence, the incoming wine to the palace, depending on need, was sent either to the storerooms (Akkadian *nakkamtum* or *rugbum*) or the (wine) cellars (Akkadian (*bit*) *kannum*). In the storerooms wine was kept in the jars in which it was shipped, the jars which were destined for the cellars were emptied and treated in various ways. These cellars are likely to have possessed large-capacity vats.²⁴

Two presumed wine cellars, one in Nimrud and another more than two kilometres distance in Fort Shalmaneser, held presumed wine jars. The Nimrud cellar held two rows of large storage jars, and the Fort Shalmaneser had narrow gangways that held “serried ranks” of large jars that were set in mud-brick benches.²⁵ The wine was transported either in wineskins or wine jars.

²² Virginia R. Badler, “The Archaeological Evidence ...”, op. cit., pp. 44–45.

²³ E. Sollberger, and J. R. Kupper, *Inscriptions Royales Sumériennes et Akkadiennes*, Paris, 1971, p. 79.

²⁴ A. Finet, “Le vin à Mari”, *Archiv für Orientforschung*, 25 (1974–77), pp. 125–26; Richard L. Zettler, Naomi F. Miller, “Searching for Wine in the Archaeological Record of Ancient Mesopotamia of the Third and Second Millennia B.C.”, in *The Origins and Ancient History of Wine*, op. cit., p. 128.

²⁵ M.E.L. Mallowan, *Nimrud and its Remains*, London, 1966, p. 407; *ibid.*, “Foreword”, in J.V. Kinnier Wilson and, *The Nimrud Wine Lists*, British School of Archaeology, London, 1972, p. viii; David Stronach, “The Imagery of the Wine Bowl: Wine in Assyria in the Early First Millennium”, in *The Origins and Ancient History of Wine*, op. cit., pp. 179–80.

In Teishebaini (around 700 BCE, modern Karmir-Blur), the capital of the Urartian Transcaucasian provinces located near present Yerevan, a total of about 400 huge jars (Armenian *karas*, Georgian *kwevris*) were found half buried in subterranean cellars of the palace which could have handled some 35,000 litres of wine. A larger wine cellar in the nearby royal city of Argishtihinili (modern Davt-Blur and Armavir) catered for 400,000–500,000 litres.²⁶

Polycleitus²⁷ in his *Histories* described the extensive wine cellar of Tellias, perhaps the richest man of Acragantini in Sicily:

the wine-cellar in the house as still existing and as he had himself seen it when in Acragas (southern coast of Sicily) as a soldier; there were in it, he states, three hundred great casks hewn out of the very rock, each of them with a capacity of one hundred amphorae,²⁸ and beside them was a wine-vat, plastered with stucco and with a capacity of one thousand amphorae, from which the wine flowed into the casks.²⁹

This amounts to 279,000 gallons (786,000 litres) of wine which is of quite substantial size for a private estate.

When Mnasippus of Sparta invaded Corcyra in 373 BCE to recover the island from the Athenians, he found that “There were magnificent houses [...] and well-stocked wine cellars,” the wine was so good that the “soldiers got such a taste for luxurious living that they would drink no wine unless it had fine bouquet.”³⁰

We also have a report by Demosthenes (384/383–322), the great Athenian orator for the storage and transportation of three thousand jars of wine³¹ (around 18,000 gallons or 50,130 litres).

In the Parthian period, a northern sub-divided square house next to the southern complex in Nisa may have held the royal treasury and important wine vaults. Apart from big jars (*xums*) that might have been used for wine storage, a cache of almost three thousand ostraca (ca. 100–29 BCE) give

²⁶ Patrick E. McGovern, *Ancient Wine ...*, op. cit., p. 25.

²⁷ A native of Larissa and probably of the generation of Alexander the Great.

²⁸ Each amphora contained about 9 gallons.

²⁹ As quoted by Diodorus Siculus, *Bibliotheca Historica*, XIII. 83.

³⁰ Xenophon, *Hellenica*, VI. 2. 6 (*History of My Life*, trans. Rex Warner, London, 1979, p. 309).

³¹ Demosthenes, 35. 18.

information on the delivery of consignments of wine from local wine yards and their quality.³²

Apart from the ancient evidence of wine in Egypt, there are further widespread indications of the existence of systematic wine storage in cellars from the late fourth through to the early sixth century CE Ballana period.³³

In medieval Iran, we have numerous meritorious examples of very refined wine cellars of different architectural styles. These were not necessarily used uniquely as wine cellars, but they were undoubtedly used for such a purpose (figs. 1, 2, 3).

Wine cellars which were intended to include wine drinking were more elaborately decorated. They were designed to cater for receptions which included music and dance accompanied with dining and wining. An outstanding and impressive example of this was the now destroyed Shah 'Abbās royal wine cellar (fig. 4), which was placed in an adjacent annex complex of the Tālār Ṭavila pavilion, situated in a magnificent garden beyond the 'Alī Qāpu palace. This pavilion was used for the reception of the ambassadors and as the coronation hall of Shah Soleimān. The annex housed the royal library, various store rooms, the workshops or the *ateliers* and the royal wine cellar which is described in length by Chardin:

The building is like a salon, some 40 feet high, set 2 feet above ground level, built in the middle of a garden with a narrow entrance and screened by a small wall two feet away, making it impossible to see within. After entering, on the left-hand side are offices or stores, on the right a large room. It is surrounded by a vault which has the shape of a square or a Greek cross by means of two portals or arcades sixteen feet in depth which are along the sides. The centre of the room is filled with a large water basin, the sides of

³² I.M. D'yakonoff and V.A. Livshits, "Dokumenty iz drevneĭ Nisy. Rasshifrovka i analiz" (Documents from ancient Nisa. Decipherment and analysis), in I.M. D'yakonoff and V. A. Livshits, eds. *materialy yuzhno-turkmenistanskoĭ arkheologicheskoi ekspeditsii* (Materials from the general southern Turkmenistan archeological expedition) II, Moscow and Leningrad, 1951, pp. 21–65. "Parfyanskiĭ arkhiv iz drevneĭ Nisy" (The Parthian archive from ancient Nisa), *Vestnik drevneĭ istorii* 4, 1953, pp. 114–130; N. I. Krasheninnikova, "Otval bitoi tary serediny I v. do n.è. iz vinokhranilishch Staroi Nisy" (A dump of shards from the Middle of the 1st century BCE from the wine cellars of Old Nisa), *IZVESTIYA AKADEMII NAUK TURKM.SSR*, 1963/5, pp. 93–98; A. D. H. Bivar, "The Political History of Iran Under the Arsacids", *The Cambridge History of Iran*, Cambridge, 1983, 3 (1), p. 22; Mary Boyce, "Parthian Writings and Literature", *The Cambridge History of Iran*, Cambridge, 1983, 3 (2), p. 1152.

³³ W. Y. Adams, *Nubia: Corridor to Africa*, Princeton, 1977, p. 418; McGovern and Michel, op. cit., pp. 63–64.

which are made of porphyry. The walls are clad with slabs of jasper, 8 feet high. Above, up to the middle of the vault, are recesses made of a thousand different kinds of patterns, which are full of vases of all sorts of designs and materials imaginable. In this ornamented salon, the floor is covered with rich gold and silk carpets. There is nothing more lively and entrancing than the countless variety of vases, cups and bottles of all kinds and shapes, designs and materials like crystal, cornelian, agate, onyx, jasper, amber, coral, porcelain, precious stones, gold, silver and enamel. All these are mixed with each other and seem as if they were encrusted along the walls. They appear so lightly attached as if they might fall from the vault. The storage along the sides of this superb room is filled with cases of wine. The wine is mostly in large bottles holding fifteen to sixteen pints or in bottles of two to three pints with a long neck.

Among appropriate proverbs inscribed on the walls, the following is quoted by Chardin:

Life is a series of intoxicating states. Pleasure passes, hangovers remain.³⁴

3. POPULAR PUBLIC WINE-DRINKING LOCATIONS

Iranians certainly made an occasion of wine drinking. Apart from private homes, the following locations catered for such events:

3.1. *Nature*

Wide-ranging evidence from miniatures show an old picnic tradition at all levels of the Iranian society which involved the drinking of wine. The events took place either in scenic open countryside or in wholly or partly landscaped gardens and *chahār bāghs*.

3.2. *Garden Pavilions*

Strategically placed semi-open or enclosed garden pavilions, overlooking pools and water canals, were usual wine-drinking spots for those who could afford them (figs. 5, 6).

3.3. *Bridges*

In populated areas, bridges did not cater solely for transportation, but included sitting areas for outings and wine-drinking (fig. 7).

³⁴ Jean Chardin, *Voyages ...*, 1811, vol. 7. pp. 375–76; idem, *A Journey...*, 1996, p. 146.

3.4. Public Wine-Houses: Taverns, Inns, Wine-shops and Wine Culture

Some imprecise evidence of taverns has come down to us from ancient Mesopotamia. The “tavern”, “inn” or the “bar” as we call it today materialized during the Old Babylonian Period (first half of the second millennium BCE) and began to play a social and cultural role in society³⁵ – the *bīt sabīti* “Woman Taverner’s House” was a “domesticated” household entity handled by the housewife. With the advent of manufacture and the general sale of alcoholic beverages it became *bīt sabī* “Taverner’s House” and the job passed to the husband. Later, in the first millennium BCE, it was offered outside the home by an innkeeper. Most of the taverns appear to have been located outside of the city walls in the vicinity of the commercial arteries, and the favourite alcoholic beverage which was served was probably beer rather than wine.³⁶

In ancient Anatolia, the Hittite *ARZANA*-house is associated with a tavern which probably functioned in much the same way as inns in other parts of the ancient Near East. A place to find food, drink, merriment, women and lodging.³⁷

Apart from the ancient evidence of wine in Egypt, there are further widespread indications of the existence of taverns and wine culture from the late fourth through to the early sixth century CE Ballana period.³⁸

Toleration of taverns had its ups and downs in different periods in history. Plautius speaks of effeminate Greeks and thieving slaves frequenting such establishments,³⁹ while Cassius Dio states that Claudius commanded the closure of such places altogether.⁴⁰ The taverns in ancient Greece were called *kapeleia*. Although featured prominently in classical plays, little tangible archaeological evidence has come down to us. Thermopolia formed the corresponding Roman version of the tavern in antiquity. They were widely spread throughout

³⁵ Jean Bottéro, *The Oldest Cuisine in the World: Cooking in Mesopotamia*, Chicago-London, 2004, p. 93.

³⁶ *Les débuts de l’histoire*, sous la direction de Pierre Bordreuil et al., Paris, 2008, p. 75.

³⁷ H. Hoffner, “The ARZANA House”, in *Anatolian Studies Presented to Hans Gustav Güterbock on the Occasion of His 65th Birthday*, eds. K. Bittel, Ph. H. J. ten Cate, and E. Reiner, Nederlands Historisch-Archaeologisch Instituut in Het Nabije Oosten, Istanbul (1974), pp. 113-21; Ronald L. Gorny, “Viticulture and Ancient Anatolia”, in *The Origins and Ancient History of Wine*, op. cit., p. 153.

³⁸ Adams, *Nubia ...*, op. cit., p. 418; McGovern and Michel, op. cit., pp. 63–64.

³⁹ *Curculio*, II. iii. 288ff; *Trinummus*, IV.3.1013.

⁴⁰ *Romaika*, LX.6.7.

the Roman Empire including Pompeii, Herculaneum and Ostia. Considerable amount of archaeological evidence gives a clear vision of their architecture. Many possessed straight or L-shaped counters. They served hot food and wine from earthenware jars. Many had an adjoining room which catered for sit-down eating and drinking.

Taverns (accompanied with cooked meat and probably other delicacies) existed in various towns in ancient India. Their locations were restricted to particular areas in the towns, and municipal authorities supervised their activity. Inspectors were appointed to oversee these establishments and control their adherence to the local byelaws and social codes.⁴¹ Some of the regulations which were applied included: wine was not allowed to be taken out of the village. The taverns were not allowed to be very close to one another. Wine or liquor was to be sold to persons of “well known, pure character” and in small quantities; they were allowed to take their drinks out of the tavern, the rest were obliged to have their drinks in-house.⁴² Special permission was required for the manufacturing of wine “On special occasions of festivals, fairs, and pilgrimage, right of manufacture for four days shall be allowed”.⁴³ We have evidence of the misuse of wine in India. There is mention of wine to intoxicate maidens and marry them against their will; harlots made use of wine in their profession.⁴⁴

Iranians have always had a knack of balancing the “does” and the “don’ts” of society. The prohibitive edicts of Islam do not appear to have dampened their thirst for wine. Ancient traditions of tolerance combined with strict Islamic restrictions led to an unwritten compromise in which Zoroastrians,⁴⁵ the Jews, and Christians who were not bound with religious constraints became responsible for wine fabrication. Further to this, the title of *may-khāna* “tavern” was vandalised and degraded to *kharābāt* “ruins/ruinous” or *kharābāt-e moghān* “ruins/ruinous (place) of the Maggi”, which did not cater solely to the Zoroastrians, but were frequented by the general public.

⁴¹ Kautilya, *Artha Shastra* (about 300 BCE), Chapt. XXV; Dharendra Krishna Bose, *Wine in Ancient India*, Calcutta, 1922, p. 27.

⁴² Ibid.

⁴³ Ibid.; Bose, op. cit., p. 28.

⁴⁴ Ibid., VI. 91, III. pp. 24–25; ibid., p. 32.

⁴⁵ Bahmanji Nusservanji Dhabhar, “Use of Wine in Zoroastrian Rituals”, in Idem, *Essays on Iranian Subjects*, Bombay, 1955, pp. 98–181.

A vivid picture of the wine drinking habits of north-eastern Iran in the 13th century CE is given by Marco Polo who expounds that the people of Casem, modern Kishm⁴⁶

are worshippers of Mahomet [...] whose great delight is in the wine shop; for they have good wine (albeit it be boiled), and are great toppers; in fact, they constantly getting drunk.⁴⁷

“The Mussulman of Kerman is,” according to Khanikoff, an epicurean gentleman, and even in regard to wine, which is strong and plentiful, his divines are liberal.”⁴⁸

Chinese authors of the 10th century CE report abundant grapes and excellent wine in the Muḥammadan Xinjiang (Khotan) province of China which is corroborated later by Marco Polo.⁴⁹

We possess no detailed written evidence of how taverns functioned or how they looked architecturally in Iran. Our sole sources are illustrations obtained from ancient miniatures and gleanings from Persian poetry and travelogues. The illustrations show that these were quite substantial buildings, usually of more than one story. They furnished courtyard and roof-top accommodation for the summer months, personal suites for the dignitaries, or private occasions (figs. 9, 10), and doormen (*parda-dārs*) to protect the clients from unwanted intruders (fig. 9).

Two of our miniatures, however, reveal much architectural information of interest. In one of these (fig. 9), the courtyard of the tavern is occupied by a group of singers and musicians who are entertaining a group of revellers in various states of ecstasy. At the entrance, a tipsy gentleman is being led out of the tavern. To the left of the entrance, an attendant is sending a tumbler of wine to the higher floors by an excellently improvised home-made elevator. To his left, a heavy and ornate jug of wine is being carried as “take-out” by a delivery man, perhaps for a special occasion. The well-stocked wine cellar

⁴⁶ Which is now a small town and the seat of a district of the same name on the right bank of the river Mashhad, a tributary of the Kokcha, in the province of Badakhshan in Afghanistan.

⁴⁷ Marco Polo, *The Book of Ser Marco Polo, the Venetian: Concerning the Kingdoms and Marvels of the East*, ed. and trans. Henry Yule, Cambridge Library Collection, Cambridge-New York, vol. 1, p. 145 and note 4, pp. 147–48.

⁴⁸ Khanikoff, *Mémoire sur la Partie Méridionale de l'Asie Centrale*, Paris, 1862, p. 186 seqq. and notice p. 21; Marco Polo, op. cit., vol. 1, p. 91, note 4.

⁴⁹ Ibid., p. 174 and note 2.

(*khom-khāna*) with several huge wine jars is situated at the ground floor of the tavern at an advantageous location to serve the requirements of the courtyard and the upper stories of the tavern. The upper rooms of the tavern cater for private guests. The whole occasion is in progress under the blessing of the angels at the roof-top. In contrast to the informal nature of the previous illustration, in this miniature (fig. 10), a group of well-groomed professionals are performing a choreographed dance in unison, being overlooked by the dignitary and his entourage who are seated in the first floor saloon overlooking the courtyard. The wine is being served in big wine-bowls (*qadah*), as was usually done in opulent receptions, by two uniformed attendants. A chamberlain (*parda-dār*) with curtain in hand is guarding the entrance to the upper floor. At the first floor private quarters of the tavern, musicians are entertaining the grandee and his entourage.

We have a good description of the sixteenth century taverns in Isfahan. According to Chardin, they opened at dawn and this was the time and towards the evening that clients come the most.⁵⁰ Although, he does not give the closing time for these, the information obtained from Persian literature indicates that they continued late to the night, if not the early hours of the morning. The guests met there to drink cordials, liqueurs, strong spirits, wine or coffee, to smoke tobacco or opium during the day or the evening, to chat and listen to poetry or story-telling – these were centres of social gathering and full of animation with a broad range of amusement, seriousness, and obscenity. They appealed to Persians of all classes.

Architecturally, they had high-ceilinged rooms of different shapes and were located in the most attractive parts of the town such as the Hārūn-e Velāyat and (extraordinarily) in the vicinity of Masjed-e Jāme. These were places where news was discussed and where politicians criticised the government. Innocent games such as draughts, hopscotch, or chess were played. Attractive Georgian boys between the age of ten to thirteen with hair plated like girls were available for homosexuals.⁵¹

⁵⁰ Chardin, *Voyages* ..., op. cit., vol. 4. p. 69; idem, *A Journey* ..., op. cit., p. 118.

⁵¹ Ibid., vol. 7. pp. 449–450, 3. pp. 300–302 and 4. p. 69; ibid., p. 118.

4. THE INFLUENCE OF WINE CULTURE ON ARCHITECTURAL ACOUSTICS

Wine drinking for celebration and feasting was often accompanied with music and dance which necessitated sophisticated acoustic treatment of the interior spaces by the architects.

Two remarkable examples of this is the reception hall at the 'Ali Qāpu pavilion (fig. 8), and the royal wine cellar (fig. 4) both of which were designed by the architects of Shah 'Abbās the Great in Isfahan to accommodate musical performances, dancing and wining. The designs were empirically based on the acoustical theory of the "open window" developed many years later (1898 CE) by the Harvard University physicist and pioneer of architectural acoustics Wallace Clement Sabine. He formulated a simple basic equation for the measurement and design of spaces which required acoustical treatment in their architecture:

$$RT60 = (.049V)$$

- Reverberation Time (RT(60)) is the time taken for a continuous sound within a space to decay 60 decibels (dB). Reverberation is the persistence of sound in a particular space, after the original sound is removed. When sound is produced in a space, a large number of echoes build up and then fade out slowly, this is because sound is absorbed by the existing materials. Long reverberation, such as those in large cathedrals and churches with complete stone structures which lead to small absorption, create undesirable acoustics.
- Volume (V) is the volume of the room (in cubic feet).
- A is the sum of the surface area (in square feet) times the absorption coefficient of each material used within the enclosure, and the role the absorptive material plays with the remaining energy in the room.

The absorption coefficient of any material, as originally defined by Sabine, is the ratio of the sound absorbed by that material to that absorbed by an equivalent area of an open window. A unit of acoustic absorption equivalent to the absorption by one square foot of a surface that absorbs all incident sounds is named as *sabin* in honour of this physicist. Thus a perfect absorbent material would have an absorbent coefficient of 1 and an absorption unit of 1 sabin represents a surface capable of absorbing sound at the same rate as 1 square foot of open window. Consequently, providing one knows the surface areas and the absorption coefficients of the materials to be used

in a room, the reverberation time of the interior can be determined at the design stage.

A similar concept may be seen in an example of modern architecture of Iran (fig. 11).

CONCLUDING REMARKS

Wine, in Iran and other parts of the Middle East, was not the fermented beverage of the rich and the famous, but of the public at large. Wine was consumed by men and women, regardless of their class, although the quantity and the quality must have differed quite widely, as is so today, depending on circumstances.

Whereas in Iran wine had no limitations of gender or class,⁵² in Rome it was not lawful for women to drink wine.⁵³ In India, wine was drunk by the higher echelon of society, women of lower castes generally refrained from drinking wine, but the ladies at the court indulged, sometimes to excess.⁵⁴

Wine has been a part and parcel of the Iranian culture from mythology to the present, despite the edicts of Islam and the restrictions of the Islamic Republic both of which have failed to eradicate the tradition in Iran.

The prohibition of wine in Islam has led some scholars to question the certainty of the existence and consumption of wine, and the reality of taverns and bars in the Islamic period in Iran. Our search revealed numerous usage of the words *may* “wine”, *may-khāna*, *sharāb-khāna*, *may-kada*, *sharāb-kada*, *kharābāt*, *kharābāt-e moghān* for “wine house, tavern, inn, bar”, *khom-khāna*, *khom-kada* “wine cellar” and *maṣṭaba* “wine shop”, all of which in the real sense. Although some of the usages may rightly be interpreted as *metaphorical*, a large number are very definitely *literal*.

The widespread appearance of obvious *non-metaphoric* manifestations from our study of various data bases of literary works have displayed unrefuted evidence in this respect. These are strongly supported by abundant wine drinking scenes of various epochs manifestly illustrated in Persian miniatures and murals, some of which are even displayed in public places. Thus, wine culture

⁵² Dariush Borbor, “Iran’s Contribution to Human Rights, the Rights of Women and Democracy”, in *Iran and the Caucasus*, 12, Leiden-Boston, 2008, p. 116.

⁵³ Pliny the Elder, *Natural History*, XIV. 14.

⁵⁴ R.C. Dutt, *A History of Civilization in Ancient India, Based on Sanscrit Literature*, Calcutta-London, 1890, reprint., Elibron Classics, 2001, p. 788; Bose, op. cit., 46ff.

continued in the Islamic period and was discreetly tolerated by the authorities, in spite of the religious pronouncements.

Although the literary evidence yielded little direct evidence on the architectural side of the wine drinking establishments in Iran, it furthered our social and institutional understanding which affected both architectural and urban design. It is clearly shown that the wine houses were used frequently and regularly by the general public, and their social dimension as get-together places of communal gathering and assembly fulfilled very similar purpose to the modern tavern, pub, or bistro.

The Greeks say “wine is also truth”⁵⁵ – a parallel notion which existed widely in Iran from the ancient times to the present and is reflected extensively in Persian poetry of different epochs, aptly summarized by the old Persian saying of *masti-u rāsti*.

⁵⁵ Plutarch, *Artaxerxes*, 14: (4).

