



Iranian Rock Crystal

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Rock crystal was one of the most admired hardstones in Iran from the Achaemenid age (559–331 BCE) to Safavid times (1501–1736 CE) and beyond.

It is mentioned many times in the tenth-century Book of Kings (*Šāhnāme*) and in the panegyrics celebrating the virtues and accomplishments of rulers in Persian poetry. Historians, such as Gardīzī who wrote the *Zeyn al-Akhhbār* around 1030 CE, also mention rock crystal wares.¹ Not least, practicing craftsmen such as the jeweller and gem cutter Jowharī Neyshābūrī in the twelfth century describe in the treatises they wrote the varieties of the stone, its properties, the locations of the mines and the various types of artefacts made from it.²

Yet, despite the irrefutable testimony of early Persian sources that rock crystal wares were very much in evidence at Iranian courts and in the life of the upper strata of the establishment, hardly any mention of rock crystal artefacts is made in books dealing with the art of Iran in Islamic times and none at all in the more general books purporting to provide a survey of “Islamic Art” at large – a meaningless concept but that is another story.³

There are two fundamental reasons for what will appear one day to have been an incomprehensible oversight. One is that the history of art in Eastern civilizations is written on the basis of works of art that are extant without paying much attention to the broader cultural context provided on art by historical chronicles, early technical treatises or poetry. Concerning the specific case of Iran in Islamic times, little use is made of Persian literature as a source of information. The other reason for the omission of the role played by rock crystal in Iranian art is the excessive focus on Fatimid Egypt. Rock crystal ewers inscribed to the name of Fatimid caliphs of the late tenth and

the eleventh centuries have been known to scholars since the nineteenth century. For decades, Western art historians writing about rock crystal wares from Islamic civilizations ascribed them to Fatimid Egypt as a matter of course.⁴

This may have been excusable at a time when a very limited number of Iranian artefacts were known in the West, whether made of hardstone, metal, ceramic, or glass. In the course of the twentieth century, however, their number grew exponentially, through the commercial looting of sites and to a lesser extent through archaeological excavations. Today, the situation is spectacularly different. On one hand, objects from the Iranian world have seen the light of day in tens of thousands, considerably broadening our knowledge of ornamental patterns. Rock crystal artefacts have turned up in Iran and the eastern part of Khorasan now in the modern state of Afghanistan with stretches in the south of Turkmenistan, Uzbekistan and Tajikistan. On the other hand, intense scholarly activity in Iran has made available critical editions of important early Persian treatises on mineralogy, early historical chronicles, and, not least, many early Persian poets’ collected works.

All this gives good grounds for attempting a survey of rock crystal in the art and culture of Islamic Iran, first by using the evidence of the hitherto neglected early Persian literary sources and secondly by looking at the artefacts. Some, which have long been known, need to be reconsidered in the light of the data now available about the Iranian repertoire of shapes and ornamental patterns. Others, which have been dug up across the Iranian world, have been given very little attention or have remained unpublished.

Part One: The Evidence of Written Sources on Iranian Rock Crystal

The wealth of information available in early Persian sources has been left untapped in the main in previous studies dealing with rock crystal objects.

The evidence yielded by early historical chronicles has been entirely overlooked. Gardīzī, for example, describes around 1030 CE the rarities and precious vessels which had been displayed at the royal wine banquet that followed the meal to which Sultan Maḥmūd treated the ruler of Māvarā al-Nahr Qadīr Khān in 416/4 March 1025–1 February 1026. They included “a service of gold and of rock crystal wine cups (*majles-e jāmhā-ye zarrīn va bolūr*).” The context shows that the service of gold and rock crystal wine cups was rated as one of the signs of “royal magnificence”:

مجلس آراسته بود سخت بدیع از سپر غم های غریب و میوه ها لذیذ و
آیینهای بدیع و نوادر.

A wine banquet had been ordained with considerable magnificence, including astonishing fragrant flowers, delicious fruits, precious gems, a service of gold and of rock crystal wine cups, magnificent disks (*ā'īnehā*)/mirrors and rarities.⁵

Early Persian Treatises on Rock Crystal

Surprisingly, the material descriptions provided by early technical treatises written in Persian have not been taken into account by art historians commenting on rock crystal in the civilizations of Islam.

The most detailed of such treatises dealing with primary substances uses the Arabic form of a Persian noun, *jowhar*, plural *jawāhir*, or *javāher* as pronounced in Persian. The *Javāher-Nāme-ye Neẓāmī* compiled by Jowharī Neyshābūrī (“The Neyshābūrī Jeweller”) has been known since at least 1316/1937 when Moḥammad ‘Alī Tarbiyat referred to it in an article on diamonds.⁶ An outstanding critical edition was established in 2004 by the great literary scholar Īraj Afshār with the collaboration of Moḥammad Rasūl Dariyāgasht. The treatise has been merely cited via a secondary source by Avinoam Shalem who does not mention the information that it yields on rock crystal even though the subject of his own article is rock crystal.⁷ Jowharī Neyshābūrī was a prac-

ticing goldsmith (*zargar*), gem cutter (*ḥakkāk*), and gemmologist (*gowhar-shenās*). His father had practised the craft before him and he succeeded him in it. Jowharī Neyshābūrī belonged to a circle of top practitioners in Neyshābūr, the vast metropolis of Khorasan. He dedicated his treatise which reads like a handbook with personal notes to the Vizier of the Khwārazmshāh ‘Alā’-al-Dīn Tekīš in 592/6 December 1195–3 November 1196. Devoid of literary figures of speech, his style is precise and direct.

The section of the *Javāher-Nāme-ye Neẓāmī* on “The rock-crystal stone and its properties” is far more detailed than the corresponding section in Abū Rayḥān Bīrūnī’s *Encyclopaedia of Primary Substances* (*Kitāb al-Jamāhir fi’l-Jawāhir*) written in Arabic 150 years earlier. The importance of the testimony of a practising craftsman gravitating in the court circles of the northeast Iranian region of Khwārazm justifies submitting an English translation of this section.⁸ It begins abruptly:

بلور سنگی است سپید شفاف و برّاق، و او نفیس‌تر جوهری است که از آن اوانی سازند و آن را اهل هند «پتک» خوانند. و آن را صلابتی تمام است و میرد قبول نکند، و آن را ثقب به الماس توان کرد...

و شرف آن به صفا و روشنی و بی‌عیبی باشد. و معادن آن چند جاست. در حدود کشمیر، و شهری است که نام او بلور است و در جزایر زنگ، و در کوه‌های طوس، و در بلاد هند در حدود سرن‌دپ نیز هست. و بهترین و صافی‌ترین آن است که در جزایر زنگ است و چنین می‌گویند که در بلاد ارمنیه و بدلیس معادن بلور هست و لون آن اندک مایه به زردی زند.

و گفته‌اند که بلور چهار نوع است:

اول نوعی آن را «اعرابی» گویند و آن چنان است که چون شعاع آفتاب بر وی افتد لونه‌های بسیار در وی ظاهر شود مثل قوس قزح. دوم نوع را «غیم» گویند از بهر مشابهت به میغ.

و سه‌ام را «سرن‌دپی» گویند، و صفا [ی] آن نزدیک باشد به صفا [ی] نوع اعرابی.

و چهارم نوع آن گرفتگی آمیخته باشد و ثقب‌ناک بود و آن نوع احسن است و اعرابی نوع اشرف.

و نوع دیگر [است] از بلور که آن را حجر «مها» خوانند و آن شفاف نباشد اما به جمیع خواص با بلور اشتراک دارد.

و در کتاب لغت‌الاحجار آورده‌اند که بلور نوعی است از زجاج.

و [بلور] در معدن خویش مجتمع شده و حجر زجاج در معادن خویش متفرّق باشد، و فرق میان بلور و زجاج بیش ازین نیست.

و از بلور نرد و شطرنج بسازند و اوانی چون قدح و کوزه و سغراق و صراحی و پیاله و غیران.

و گمان جماعتی آن است که بلور به آتش بگذازد چنانکه آبگینه و از آن انواع اوانی سازند، و آن ظنّی است خطا و ممکن نیست. لکن بلور را خرد بسایند، با قلی بیامیزند و در کارگاه آبگینه گران بگذارند و از آن اوانی کنند و بعد از آن روی آن را به چرخ و آلت‌های حکاکان راست کنند و بر آن نقشها کنند و جلا دهند و آن انواع را «بارنج» گویند و به غایت سپید و شفاف بود و با طراوت باشد.

و چون بلور گذاشته شود فرق نباشد میان او [و] حجر «مها» که آن در خراسان «شکر [سنگ]» خوانند و از وی همین نوع بتوان ساخت. و اصل جمله «مینا» از آن کنند.

و چون آن را بگذارند تنها، چنانکه چیزی با وی نیامیزد حجر زجاج سپید باشد و از آن اوانی که از بلور ساخته‌اند به مدّتهای مدید ساخته‌اند به آلات حکاکان و هر یک از آن اوانی یک پارسه سنگ بلور بوده باشد که از آن نوعی از اوانی ساخته باشند.

و چنین آورده که در قدیم پاره‌های بلور چنانکه از معدن بیرون کرده باشند به شهر بصره می‌آورده‌اند و آنجا حکاکان کامل ماهر بسیار بود و در آن شهر مقدّری بودست که پاره‌های بلور را نخست بر او می‌برده‌اند تا تقدیر می‌کرده است که از هر پاره چه توان ساخت، و آنچه به هر پاره‌ای از آن لایق بودست بر آنجا می‌نیشته است. بعد از آن به نزدیک صنّاعان می‌برده‌اند تا آنچه می‌بایست ساخت می‌ساخته‌اند و او را اجرة معین بودست از جهت تقدیر علمی را نه برای کلفت عملی.

و در قدیم خلفای مصر را بدان رغبت تمام بودست و هر چه از بلور ساخته‌اند که سر آن تنگ بوده است و بُن او فراخ هر مقدار یک درم سنگ آب که در وی می‌رفته است یک دینار زر مصری قیمت می‌داده‌اند. بدان سبب در آن قرن از آن اوانیها و غیر آن می‌ساخته‌اند و به قیمت هر چه تمامتر می‌فروخته.

و بیشتر از بلورینه طرایف که کنون افتد القاب عزیز مصر بر وی نیشته باشند. و بلور باید که با لطافت و رقت مثل هوای صافی صرف باشد و به صفا و طراوت آب صافی و عذب باشد. و اگر در پاره بلور که از وی چیزی خواهند ساخت موضعی را تقعری باشد که به حکّ هموار نتوان کرد یا روشنی موضع تمام نباشد آن را به نقشی به تاب‌گری یا به کتابه یا غیر آن پوشیده گردانند.

و هر چه در غایت کمال از اوانی بلور آن است که در قدیم ساخته‌اند. و درین تاریخ از کشمیر [و] بلور سغراقهای خرد بد رنگ تباہ شکل می‌آرند کار نو و آن را قیمتی نباشد و لطفی و حلاوتی ندارد.

و از بلور انواع اشباه جواهر چون لعل و یاقوت صرخ و کبود و اشباه زمرد چنان که پیش از این ذکر شدست بتوان ساخت. بلور را بسایند و مصول کنند و بعضی از یاقوت و زمرد و عتیق و جزع و بیجاده را بدان جلا دهند، و هیچ جوهر را از جمله جواهر آن خاصیت نیست.

و از بلور نگینها سازند و آن را رنگ کنند و آن ملون باشد مثل لعل و آن را «ملون» خوانند.

و هم از بلور نگینها سازند و به جهت تسخیر نفوس جنّ به نقوش خواتیم که در علوم تنجیم بدان حاجت باشد نقش کنند و بلور صافی را به آن نوع مطلوب و مناسب است

Rock crystal is a stone, white, transparent and brilliant. It is the most costly primary substance (*jowhar*) from which they make vessels. The people of India call it *patak* [vocalization uncertain]. It is extremely hard and cannot be sawn. It can be pierced with a diamond... Its quality [lit.: "grandeur/honor"] lies in its transparency (*ṣafā*), its luminosity (*rowshanī*) and the lack of any imperfections. Mines are found in several places in the marches of Kashmir (*ḥodūd-e Kashmir*), in a land called Bolūr, in the islands of the Zang (= Zanzibar), in the mountains around Tūs [near Mashhad in Khorasan] and on the lands of India (*bilād-e Hind*). It is also found around Sri Lanka (*dar ḥodūd-e Sarandīb*). The best and most transparent is found in the islands of the Zang. They say that there are rock crystal mines in the lands of Armenia and in Bitlis. Its hue, which is not very good, leans towards yellow.

It has been said that there are four varieties of rock crystal.

The first one is called *Aʿrābī* [lit.: "of the Arab nomads"]. When sunrays touch it, multiple rays appear, as in a rainbow.

The second one is called *ghaym* ["cloud" in Arabic] because it resembles a cloud.

The third one is called Sri Lankan (*Sarandībī*). Its transparency approaches that of the Nomadic Arabian (*Aʿrābī*).

The fourth one is of varying solidity and allows drilling. That kind is the most beautiful while the Nomadic Arabian is the most distinguished.

There is yet another variety of rock crystal called the "Mahā stone." It is not transparent but it shares all the characteristics of rock crystal.

In the Book of Stones (*Kitāb al-Aḥjār*), cited by Birūnī in his Mineralogy titled "Encyclopaedia of Primary Substances (*Kitāb al-Jamāhir fī'l-Jawāhir*)," rock crystal is reported to be a variety of glass. In mines, rock crystal comes in solid blocks whereas glass comes mixed with other substances. There is no other difference between rock crystal and glass.

With rock crystal, they make backgammon and chess [boards/pieces], vessels such as cups (*qadah*), jugs (*kūzeh*), ewers (*saghrāq*),⁹ decanters (*ṣorāḥī*), phiales (*piyāleh*), etc.

Some believe that rock crystal can be melted down over fire like glass and that various vessels are made of it. This belief is mistaken and it is impossible. Rock crystal is ground down to small pieces and mixed with potash (*qilī*), melted down in glass makers' workshops and vessels are made of it. Then the surface is worked upon with gem cutters' wheels and tools, motifs are executed, and it is polished. These types [of rock crystal pieces] are called *bāranj*. They are perfectly white, transparent and delicate.

When rock crystal is melted down, it is no different from the "Mahā stone" that they call "sugar[stone]" in Khorasan. The same models can be made from it. It is a source of all glazes (*mīnā*).

When it is melted down on its own without mixing anything with it, it is the white-glass stone. Those vessels that are made of rock crystal have been made for a very long time with the tools of gem cutters (*ālāt-e ḥakkākān*). Each vessel is made from one block of rock crystal with which they make that type.

It is reported that in the old days, they took to Baṣra rock crystal blocks as they came out of the mines. There, many highly skilled gem cutters (*ḥakkākān*) were active. In that city, there was an assessor (*moqadderī*) to whom they first brought the blocks for him to estimate what could be made out of each one. What was worth making from each block was noted down there. After that, these were brought to the craftsmen (*ṣannā'ān*) for them to make what needed to be made. He [the assessor] was entitled to a predetermined fee for his scientific (*elmī*) assessment, not for manual service.

In the old days, the Egyptian caliphs were extremely keen on it [rock crystal]. Regarding any item that was made of rock crystal with a narrow top and a broad base, for each [weight] drachma of water it held, they would pay one Egyptian gold *dīnār*. This is why in that century, they made those [types of] vessels and others, and sold them for the highest possible prices.

Most of the rock crystal rarities that are currently found are inscribed with the titles of the 'Azīz [Ruler] of Egypt. The rock crystal must be fine and delicate, like pure air, and have the transparency and freshness of transparent fresh water.

If in the rock crystal block from which they want to make something, a place is hollowed out and cannot be made even by cutting, or a place is not perfectly

luminous, they conceal it with vegetal motifs (*nabāt-kārī*) or a calligraphic frieze (*ketābeh*), or something else.

Any rock crystal vessel made to perfection is one that was made in the old days. At present they bring from Kashmir newly made small flasks with poor colors and rotten shapes. Those are not expensive but are neither delicate nor attractive.

With rock crystal, one can make imitation gems, such as spinels (*la'ī*), red corundum (*yāqūt*) and blue corundum [sapphire], and imitation emeralds, as has been noted previously.¹⁰

They grind and wash the rock crystal and polish with it some of the rubies, emeralds, carnelians, and garnets. No [other] mineral has this property.

They make bezels (*negīnhā*) from rock crystal, color them and give them the hue of a spinel. These are called "colored (*molavvan*)."

They also make rock crystal bezels to defeat the souls of the djinns with the images of the seals that are required to be depicted in the science of the stars. Transparent (*ṣāfī*) rock crystal is sought after and appropriate.

After this long technical exposé, Jowharī Neyshābūrī switches to history. He tells the "story (*ḥekāyat*)" of Alexander to whom a great many precious rock crystals were brought as presents. Taking care to draw a line between legend and history, Jowharī Neyshābūrī then gives accounts of rock crystal objects drawn from "historical chronicles (*tavārīkh*)" without specifying which ones:

و در تواریخ آورده اند که چون یعقوب بن اللیث در آن وقت که [ب] نیسابور آمد و محمد بن طاهر را که والی خراسان بود ناگاه بگرفت و قصد سرای و خزاین وی کرد و او را با خویشتن می گردانید تا هر کجا چیزی نفیس بودی به وی می نمودی، تا به خزاین طرایف رسید. و محمد بن ماهر مالهایی که بدان نوع از بلورینه و غیر آن که مناسب آن بود صرف کرده بود می شمرد. چون سخن تمام بگفت یعقوب لیث غلامان را بفرمود تا به عمود جمله آن بلورینه ها را و غیر آن را بشکستند. و بعد از آن آب خواست از مشربۀ سپیدروی. چون آب بخورد مشربه را بر زمین زد. بانگی از آن بیرون آمد و به زمین بگردید و هیچ خلل و نقصان در آن مشربه نیامد.

Historical chronicles report that Ya'qūb b. Layt, at the time he came to Neyshābūr and swiftly captured

Moḥammad b. Ṭāher who was the governor (*vālī*) of Khorasan, made for his palace, seized his treasures and appropriated them. Wherever there was something precious, that was shown to him. He eventually arrived at the treasury of precious pieces. Moḥammad b. Ṭāher was counting the sums that he had spent on these types of rock crystal wares (*ān now' az bolūrīneh* [meaning the vessels mentioned in the technical exposé]) and other appropriate pieces. When he finished talking, Ya'qūb-e Layṭ ordered his bonded officers (*gholāmān*) to smash with their maces the rock crystal vessels (*bolūrīnehā-rā*) and the rest. After that, he asked for water in a white bronze mug (*mashrabe-ye sepīdrūy*). When he finished drinking the water, he threw the mug on the ground. The mug made a noise and rolled on the ground but suffered neither breaks nor loss of material (*hīch khelal va noqṣān*).¹¹

Ya'qūb b. Layṭ then mocks Moḥammad b. Ṭāher for having spent vast sums on precious objects and rhetorically asks what harm it did him [Ya'qūb b. Layṭ] to drink water in a white bronze mug. Moḥammad b. Ṭāher ought to have distributed the money to his men.

Without transition, Jowharī Neyshābūrī ends the section on rock crystal with a story told by “a respected, trustworthy and distinguished” merchant in the year 555/12 January–31 December 1160:

من به کرمان بودم. در دست شخصی از تجار صراحی دیدم مثل کنوی از بلور چنانکه به مقدار سه من آب در وی همی رفت و تنگی سر آن بدان مقدار بیش نبود که انگشتی معتدل درو فرو رفتی. و گرداگرد آن کتابه‌ای انگیزته و القاب عزیز مصر بر آنجا نبشته و آن را ده کعب در درون یکدیگر. و بر جمله آن صراحی مقدار سر سوزنی عیب نبود و بلور آن در لطافت و شفافیتی مانند هوای صرف بود و نظیر نداشت و هرگز کس مثل آن ندیده باشد و من آن را به پانصد دینار زر خراجی خواستم. خداوند آن گفت که هزار دینار کم فروشم.

I was in Kermān. I saw at the hands of a merchant a rock crystal decanter (*ṣorāḥī*) like a gourd. It took in three *manns* of water, its top so narrow that it did not allow more than a medium sized finger to go through. A calligraphic frieze in low relief (*ketābe-ye angīkhteh*) ran around [the body] with the titles of the 'Azīz [Ruler] of Egypt and that had ten cubes within each other (*va ān-rā dah ka' b darūn-e yekdīgar*). The entire decanter did not have so much as a pinhead size defect. It had the daintiness and transparency of pure air, it was peerless. Nothing like it had ever been seen. I wanted to buy it for five hundred gold dīnārs.

Its owner said he would not sell it for less than one thousand dīnārs.

This story is unusual in several respects. The merchant's account of his encounter in Kermān, related in the first person singular, is unique in early Persian craftsmen's treatises. In a few sentences, he conveys the admiration and yearning that he experienced. He notes the presence of a calligraphic frieze in square Kufic reproducing the titulature of an Ismaili ruler. In a remark that echoes a real-life experience, he describes the haggling over price that went on between the two professionals as might happen today between dealers in Iran. The vessel “like a gourd (*kadū*)” that he mentions is a type indeed called *kadū* in Persian literature, early poetry included, and is a common model in bronze and glass.¹²

One precision raises some interesting questions of art history. This is the calligraphic frieze in low relief (*ketābe-ye angīkhteh*). Such inscriptions are known on rock crystal vessels where they reproduce the titles (*alqāb*) of the Egyptian Fatimid caliphs. Does Jowharī Neyshābūrī's account point to the presence in Iran of an Egyptian rock crystal vessel? Or are we to understand that some rock crystal ewers inscribed with the titulature of the Fatimid caliphs of Egypt were made for them in Iran? The gourd-shaped model is so far known from Iranian examples, but not from Egyptian ones. This would be an argument in favor of the “made in Iran” assumption concerning the decanter seen in Kermān. The few rock crystal ewers inscribed with the names of Fatimid caliphs have distinctive shapes that differ from Iranian ones. Above all, their patterns are typical of Egyptian art as represented in various media at that period.

It is perfectly conceivable that some rock crystal ewers were made in Iran for the Fatimid caliphs given the close relations that existed between Iranian and Egyptian Ismailis at that period. They would have been eminently suitable offerings for rulers. While Jowharī Neyshābūrī mentions twice the high quality of the rock crystal ewers inscribed with the names of Fatimid rulers that were highly sought after in his own lifetime, he does not specify that they were brought from Egypt to Iran. The Iranian jeweller's silence on this score, when the jeweller goes into so much detail on every possible aspect of rock crystal, including the miserable quality of Kashmir rock

crystal vessels arriving in Khorasan in his time, is another argument that supports the hypothesis that some rock crystal ewers bearing the titula-ture of Egyptian caliphs seen in Iran were indeed made in Iran, none of which survived the vicissi-tudes of time. For the moment, however, further discoveries of texts or objects must be awaited to settle the matter.

Leaving aside this particular question, Jowharī Neyshābūrī's section on rock crystal yields ex-tremely important information on the sources of the varieties used in Iran, on the craftsmen's methods of working it, and, crucially, on the types of artefacts made from it. In passing, we learn that Moḥammad b. Ṭāher, the governor of Khorasan at the time of the invasion of Khorasan by the Safarid Ya'qūb b. Layṭ, owned many rock crystal vessels (*bolūrīnehā*) in Neyshābūr by the early ninth century.

Much of the information given by Jowharī Neyshābūrī on rock crystal is repeated in short-ened form by another practising craftsman whose specialty was pottery, Abu'l-Qāsem 'Abdollāh Kāshānī, in his treatise, "The Brides of Primary Substances and the Most Precious of Delicate Ob-jects (*'Arāyes al-jawāher wa nafāyes al-aṭāyeb*)."

The master in the art of ceramics who wrote it in 700/16 September 1300–5 September 1301 adds an intriguing detail. After reporting the sto-ries about Eskandar (Alexander) in antiquity and Ya'qūb b. Layṭ in the ninth century recounted by Bīrūnī and Jowharī Neyshābūrī, Kāshānī notes out of the blue:

از جانب فرنگ اباریق و صراحی که مقدار پنج من آب بگیرد
به خدمت صاحب سعید شمس الدین محمد صاحب دیوان آوردند
و شطرنج به غایت پاکیزه که رقعه آن یک خانه بلور بود و یکی
رنگ سرخ مثل لعل پیازکی کرده.

Pitchers (*abārīq* – pl. of *ibrīq*) and a decanter that can hold five *manns*¹³ (just over four liters) of water were brought from somewhere in Europe for His Excel-lency the late Chancellor (*Ṣāḥeb-e Dīvān*) Shams al-Dīn Moḥammad [Joveynī] as well as a very neat chess board of which one camp had a set of rock crystal and the other was of red color like *piyāzakī* spinels.¹⁴

Abu'l-Qāsem Kāshānī, who is precise about the types of objects, the materials of which they are made, their geographical provenance (very broadly in this case) and their owners of note, does not take the trouble to specify how the objects came

into the possession of the famous chancellor: A gift from Western ambassadors? From Iranian en-voys returning home? A commercial acquisition, which seems less likely?

Such as it is, this brief report is one more piece of evidence of the love of rock crystal among the great and the good in Iran. Although it is not stated in so many words, the context definitely implies that the pitchers and the decanter brought from Europe were made of rock crystal.

A third treatise written in the mid-fifteenth century, although no more than a summary digest of earlier works, deserves attention for an inci-dental mention of vessels used at the Ghaznavid court. The author, a certain Moḥammad b. Maṣṣūr, dedicated it to the Aq Qoyunlū sultan Uzun Ḥasan. He briefly reports the existence of very large blocks of rock crystal cited by Abū Reyḥān [Bīrūnī], Ya'qūb b. Ishāq al-Kindī, and Aḥmad b. Yūsuf al-Tifāshī but regrettably omits to name his source when mentioning examples of enormous vessels made from the materials that were in use at the Ghaznavid court:

It has been said that in the Ghaznavid King's house [sic], there were four wine jars (*khomreh*) each of which held the equivalent of two *rāviyeh* [a large leathern bottle] of the beverage.¹⁵

Interestingly, Moḥammad b. Maṣṣūr's account of the "story" told about the large rock crystal jars used in the Ghaznavid palace is actually a late echo of a report found in an earlier Arab source, the *Maṭālī' al-Budūr fī Manāzil al-Surūr*, "The Ascent of the Full Moons in the Mansions of Joy" written by 'Alā' al-Dīn 'Alī b. 'Abdallāh al-Bahā'ī al-Ghazūlī. This book, which deals with a variety of pleasurable subjects, has a chapter (no. 39) "On the properties of stones and their pres-ence in mines" (*Fī khawāṣṣ al-aḥjār wa kiyāniḥā fī'l-mayādīn*). Noted by Carl Johan Lamm in his monumental two-volume study of "Islamic Glass" published in 1929–1930, it was recently cited after him by Avinoam Shalem, who trans-lated into English Lamm's German version of al-Ghazūlī's text in an article on rock crystal.¹⁶

Shalem speculated that a noun transliterated by Lamm as *čuwāb* might be a corruption of the Arabic *ḥabb* for "grain," which would make no sense in the context. The noun which is actually *khawābi*, "large jars," the plural of *khābi'a*, is cor-rectly noted in the printed edition of the *Maṭālī'*

al-Budūr fī Manāzil al-Surūr edited by al-Tijānī Saʿīd Maḥmūd in 2017. Al-Ghazūlī, quoting al-Tifāshī (see below), writes after mentioning rock crystal in the previous line:

تصنع منه خواب للماء في كاشغر و غزنة، أخبرني من كان متصلاً
بشهاب الدين الغوري ملك غزنة إنه رأى في قصره أربعة خوابي
للماء كلّ خابية تحمل ثلاث روياء ماء من روايا الجمال، جميعها
على محمل يصعد منها إليها من بلور كل واحد من محمل ثلاث
قناطير الى أربعة.

And they make with it [rock crystal] large jars for water in Kāshghar and Ghazna. I was informed by someone who was connected to Shihāb al-Dīn al-Ghūrī the king of Ghazna that he saw in his palace four large jars (*khawābī*) for water made of rock crystal (*billawr*). Every large jar contains the [equivalent of] three leathern vessels (*riwāyā*) for water, of the camel leathern vessels type, all of them set on a howdah (*maḥmal*) from which one climbs to reach them. Every howdah [holds] three to four *qinṭārs*.¹⁷

The version of the tradition as reported by the Arab writer Aḥmad b. Yūsuf al-Tifāshī in his famous treatise on mineralogy, the *Kitāb Izhār al-Afkār fī Jawāhir al-Aḥjār*, "The Book of the Blossoming of Thoughts on the Primary Substance of Stones,"¹⁸ is actually more detailed and this precision gives it a more credible ring.

Avinoam Shalem referred to Al-Tifāshī's treatise in his article "On Medieval Rock Crystal Sources and Resources" when citing "the splendid luminosity of Kashgar [sic] crystals."¹⁹ Shalem, however, would not seem to have actually read the Arabic original in the Cairo edition established in 1977 by Muḥammad Yūsuf Ḥasan and Maḥmūd Basiyūnī Khafajī that he cites in a footnote. Speaking in the first person singular, the Arab polymath sounds reliable. Regrettably, he omits to state whether he met the men from Ghazna in Syria or in eastern Iran. The importance of the anonymous informants' testimony justifies reproducing al-Tifāshī's version:²⁰

أخبرني غير واحد من أهل غزنة (بنقل متفق على صحته) أن بالقرب
منها بينها وبين كاشغر بمسيرة ثلاثة عشر يوماً من غزنة واد بين
جبلين. ذلك الوادي طريق تؤدي إلى كاشغر و الحبلان اللذان على
الوادي من جهت كلاهما بلور خالص تقطع حجارتها في الليل، لأن
أشعته إذا طلعت عليه الشمس تمنع العمل فيه بالنهار. و تصنع منه
خواب للماء في كشميهن [أو كشمير؟] و غزنة.

و أخبرني (من كان متصلاً بشهاب الدين الغوري ملك غزنة) أنه
رأى في قصره أربع خواب للماء، كل خابية تحمل ثلاث روياء ماء
من روياء الجمال، جميعها على محامل يصعد منها الى خوابي بدرج
من بلور، كل محمل من ثلاثة قناطير الى أربعة.

I was informed by more than one inhabitant from Ghazna (in accounts on which there was agreement about their correctness) that in its proximity, between the town and Kāshghar, at thirteen days' travelling from Ghazna, there is a river [flowing] between two mountains. This river is a road that leads towards Kāshghar, and the two mountains on the sides of the river are both pure rock crystal (*billawr khālīṣ*). The rock crystal is cut during the night because its rays, when the sun rises over it, prevent working on it during the day. They make from it jars for water in Keshmihan, [a dependency of Neyshābūr – or Keshmar?] and in Ghazna.

Someone who was connected to Shihāb al-Dīn al-Ghūrī, the King (*sic: Malik*) of Ghazna informed me that he saw in his castle (*qaṣrihi*) four jars for water, each jar (*khābiya*) containing water from the stalls of the camels, all [placed] on *maḥmals* (howdahs) from which one rises to reach the jars [contained] in a rock crystal casket (*durj min bolūr*). Each *maḥmal* bears three to four *qinṭārs* [around 50 to 60 kgs/liters].

The account of Al-Tifāshī's informer from Ghazna "connected to the Ghurid Sultan Shihāb al-Dīn" who said that he saw in the royal castle crystal jars contained in a rock crystal casket implies the existence of a solidly established tradition of manufacturing rock crystal vessels in eastern Iran. Even if the informer's evaluation of the capacity of the jars and of the total weight might be exaggerated, the details of the observation sound perfectly convincing.

The factual information provided by the Persian treatises dealing with the sources and characteristics of rock crystal, the techniques employed in working the semi-precious stone, and, most importantly, the types of objects made from the material yield ample evidence of the presence in Iran of rock crystal vessels and of game pieces such as chessmen. The need that the craftsmen producing handbooks felt to recount stories such as the destruction by Eskandar (Alexander) of the Achaemenid ruler Dārā's rock crystal vessels and to report on artefacts owned by historic rulers indicates that the tradition of using rock crystal vessels was truly embedded in Iranian culture

and that these loomed large in royal palaces. The parallel testimony of Arab authors such as Al-Tifāshī, which backs up what the Iranian craftsmen report, adds useful evidence to that effect.

Early Persian Poetry on Rock Crystal

Persian poetry introduces a new dimension by providing the context in which rock crystal objects were seen and the way in which the literate elite perceived them.

The Earliest Mentions

Rock crystal is mentioned in some of the earliest poetry written by authors known only through a few verses, mostly preserved in anthologies or quoted in dictionaries to support the glosses of words. A passing line in the *Āfarīn-Nāmeḥ* (Book of Creation) which Abū Shokūr Balkhī was busy writing by 333/24 August 944–12 August 945 reveals that the hardstone was familiar enough to the Khorasani poet's readers for him to evoke it as an example of easily broken precious material:

شنیدم که دشمن بود چون بلور چو گاه شکستن نیایی مشور

I have heard that the enemy is like rock crystal
When you do not find the moment to break
[it], do not agitate²¹

Verses by Daqīqī, the immediate predecessor of Ferdowsī, who would have been a contemporary of Abū Shokūr, have been cited by Avinoam Shalem in an essay about rock crystal in the lands of Islam. Unfortunately, the scholar resorted to an English translation as he normally does for Persian and Arabic texts.²² As a result, he was unaware that the Persian original mentions glass (*ābgīneh*), not rock crystal (*bolūr*):

نگه کن آب و یخ در آبگینه فروزان هر سه همچون شمع روشن

Look at the water and the ice in a glass
See these three, colored with but one hue²³

Daqīqī here celebrates transparency but does not write about rock crystal, nor am I aware that he has done so in the few verses that have come down to us.

In the earliest Persian monumental narrative in poetical form completed shortly before 1000 CE, rock crystal vessels are mentioned several times in a quasi-ritualized manner. The *Šāhnāme* [Book of Kings], on which Ferdowsī began working at least a decade after Abū Shokūr is known to have been fully engaged in the composition of the *Āfarīn-Nāmeḥ*, lightly touches on the circumstances in which rock crystal vessels appeared at court.

Rock Crystal Vessels in the Šāhnāme and Garšāspnāme

Ferdowsī's testimony is important because the *Šāhnāme* was ubiquitous in Iranian court life. Excerpts dealing with beloved episodes from the monumental parable in 50,000 couplets about the history of Iran in pre-Islamic times would be chanted daily by an appointed official to the king, the Book of Kings *k̄vān* (*Šāhnāme-Khwān*), just as Qur'an verses were recited daily by the Qur'an *k̄vān* (*Qur'an k̄ān*).²⁴ Entire passages of the book were reproduced on glazed tile revetments that ran on the walls of palaces.²⁵ Figural tiles dealt with the most famous episodes, as did some glazed fritware or metal vessels on the royal table.²⁶ It would seem that a *Šāhnāme* manuscript was commissioned for each new ruler ascending the throne when this did not come about as a result of war or of an upheaval. In short, it was impossible to escape from the ever-present narrative. Prominent material details would be vividly remembered by those who heard it chanted and those who read it.

While the *Šāhnāme* does not mirror daily reality in the manner of an ethnographic report, the mentions of rock crystal artefacts in its different parts provide some broad indications about the types in use and their frequency. Rock crystal wine cups (*jām-e bolūr*) are mentioned only three times before the chapter dealing with the life of Bahrām Gūr as the historic Sasanian emperor Warahrān V is known in Persian. In this chapter, the words *jām-e bolūr* occur numerous times, echoing Ferdowsī's awareness of their reality in the Sasanian period.

The imaginary circumstances in which the rock crystal vessels are mentioned are likely to match those in which they actually appeared at court, whether under the Sasanian dynasty or in Ferdowsī's own time when the rulers of Iranian

lands prided themselves in maintaining what they saw as the traditions of ancient Iran.

Where Ferdowsī mentions rock crystal prior to the advent of the Sasanian Bahrām Gūr, he does so in terms that do not differ from those used in the chapters dealing with the Sasanian dynasty: Iran had no clear memory of its past prior to the Sasanian period and the *Šāhnāme* evocations of earlier events do not differ from those of the Sasanian period. The few mentions of rock crystal vessels made in the chapters preceding the reign of Bahrām Gūr are therefore equally relevant to Sasanian period usage as conceived by Ferdowsī. All occur in couplets in which the poet sings a royal wine banquet.

The first reference to a rock crystal cup crops up in the Book of Kay Qosrow. Rostam and his companions make merry in a garden where they drink themselves witless:

می لعلگون را بجام بلور بخوردند تا در سر افتاد شور

They drank red colored wine in rock crystal cups
Until turmoil filled their heads²⁷

The second reference to a rock crystal wine cup is made considerably later in the same Book of Kay Qosrow. Bīžan is invited to a banquet in the kingdom of Tūrān:

می سال خورده بجام بلور بر آورد با بیژن گیو زور

Old vintage wine in a crystal cup
Restored the strength of Bīžan son of Giv²⁸

The third mention of a rock crystal cup is found in the Book of Goshtāsp. The emperor celebrates the arrival of his son Esfandiyār by giving a huge wine banquet:

بایوانها در نهادند خوان بسالار گفتا مهانرا بخوان
بیامد ز هر گنبدی می گسار بنزدیک آن نامور شهریار
می خسروانی و جام بلور گسارنده می داد رخشان چو هور

They set up the tables [lit. trays] in the vaulted halls
He told the Master of Ceremonies: "Call the
grandeens"

A cupbearer came out of each domed pavilion
And approached that celebrated Sovereign

The cupbearer would give, brilliant like the Sun
Royal wine and a rock crystal cup²⁹

In all three cases, the association of red wine and a rock crystal cup is presented by Ferdowsī as the natural thing to do. Wine, thought of as a substitute for sacrificial blood, which was variously called "the blood of the vine" (*khūn-e raz*), "the blood of the cock" (*khūn-e khorūs*) and other related metaphors, was celebrated for its deep red color and its brilliance.³⁰ It was best if the wine was visible, and rock crystal, which is both transparent and rates as a semi-precious stone, was supremely suitable for kings. In the *Šāhnāme* section called the "Book of Bahrām Gūr" which deals with the reign of the historic Warahrān V, Ferdowsī mentions rock crystal cups numerous times. The poet does so invariably in connection with the highly ritualized wine banquet (*bazm-e mey*), a major ceremony in Iran which functioned as an instrument of governance and diplomacy.³¹

After taking his place on the throne in the early morning, a moment when wine libations are traditionally held in the royal park if the season allows, Bahrām Gūr requests wine to be brought. The army chiefs arrive. A leading civilian official (*mard-e meh*) then comes, bringing camel loads of pomegranates (*nār*), apples (*sīb*), and quinces (*beh*), the fruits consumed in the course of wine libations as may be seen in Iranian manuscript painting as late as the Safavid period (1501–1736).³² The high official catches sight of a rock crystal cup filled with wine, whereupon:

یکی جام دید او پر از می بلور بدلش اندر افتاد از آن جام شور

He saw a [wine] cup (*jām*), the rock crystal full of wine
[Upon seeing] that cup, his heart was gripped with
anguish³³

Another time, Bahrām Gūr goes hunting. He arrives at a village where young women are drinking and singing with this punch line by way of celebrating his arrival:

شکارش نباشد مگر شیر و گور ازیراش خوانند بهرام گور

He hunts no preys other than lions and onagers (*Gūr*)
This is why they call him Bahrām-e Gūr³⁴

The emperor orders wine to be brought:

می‌آرند و میخواره نزدیک شاه
بفرمود تا میگساران ز راه
نهادند بر دست بهرام گور
گسارنده آورد جام بلور

He ordered the cupbearers that were on the road
To bring wine and wine vessels near the Shāh

A wine pourer brought a rock crystal cup
They laid it on Bahrām-e Gūr's palm³⁵

This is not just a random occasion. Drinking wine at the end of the royal hunt was traditional.³⁶ Bringing a vessel appropriate for the king was therefore imperative and rock crystal met that requirement.

The third occasion on which a rock crystal wine cup is brought to Bahrām Gūr is provided by the emperor's discovery of the treasure of Jamshīd. This episode probably echoes the memory of a discovery of a hoard of ancient Iranian artefacts, perhaps consisting of Achaemenid gold and silverware. To celebrate an event that would have been considered unforgettable, Bahrām Gūr ordains a wine banquet in the Nowbahār, the Buddhist shrine and palace complex in Balkh, in eastern Khorasan:

یکی بزمگه ساخت در نوبهار
بیاراست ایوان گوهرنگار
می لعل رخشان بجام بلور
چو شد خرم و شاد بهرام گور

He ordained a wine banquet in the Nowbahār
He decorated the gem-studded vaulted hall

Red wine [was] scintillating in a rock crystal cup
As Bahrām Gūr became merrily full of joy³⁷

A fourth mention of rock crystal cups during Bahrām Gūr's reign confirms that these became de rigueur during that period at imperial wine libations as Ferdowsī believed. While hunting along the river, Bahrām Gūr arrives at a palace in a park. In the rose garden full of servants, an elderly man sits on the edge of a pool (*ābgīr*) with his three daughters. These wear domed turquoise crowns (*be sar bar nahādeh ze pīrūzeh tāj*) and hold rock crystal wine cups:

یکی جام بر دست هر یک بلور
بدیشان نگه کرد بهرام گور

A wine cup was in the hands of each one, made of rock crystal

Bahrām Gūr looked at them³⁸

In one passage, Ferdowsī's text implies that rock crystal was the material par excellence for the royal wine cup. The occasion here, too, is an event to be celebrated. Bahrām Gūr's falconer has spotted at the top of an almond tree the emperor's favorite hawk Ṭaghri, which had flown off, and recovers the prey bird. Bahrām's vizier (*dastūr*) Barzīn requests wine to be brought with a cup and toasts the emperor. Then a rock crystal wine cup is brought and put in Bahrām Gūr's hands:

بیاورد برزین می سرخ و جام
نخستین ز شاه جهان برد نام
وزان پس بیاورد جام بلور
نهادند بر دست بهرام گور

Barzīn brought red wine and a cup

First, he pronounced the name of the King of the World

Then, he brought a rock crystal cup

They placed it in the hands of Bahrām-e Gūr³⁹

Ferdowsī briefly states further that the wine cup is heavy, implying that it is larger than usual. As a singer finishes a song celebrating his virtues and his feats, the king drains the cup:

چو آن چامه بشنید بهرام گور
بخورد آن گرانسنگ جام بلور

As Bahrām Gūr heard this song

He drank from that heavy rock crystal cup⁴⁰

At the end of another hunting expedition, a "large cup" is requested by Bahrām Gūr for the traditional wine libations held after the meal:

چو نان خورده شد شاه بهرام گور
بفرمود جامی بزرگ از بلور

When the meal was finished, King Bahrām Gūr

Requested a large wine cup made of rock crystal⁴¹

The tone is matter of fact. Although the text respects the *Motaqāreb* meter in couplets with inner rhyme, the sentences read like ordinary prose. The implication of such lines appears to be that large size rock crystal cups were available for royal use.

The *Šāhnāme* suggests that rock crystal cups

appeared at banquets sealing international relations. When the King of Hindustān Shangul gives a banquet for his guest Bahrām Gūr, the Iranian ruler drinks wine in a rock crystal cup as they watch wrestlers demonstrating their skills:

چو بهرام برداشت جام بلور بمغزش نبید اندر افگند شور

When Bahrām [Gūr] raised the rock crystal cup
The wine shed confusion in his brain⁴²

Ferdowsī does not supply any other detail about the wine drinking. The wine rock crystal cup seems to be an obligatory implement for the ceremony.

Rock crystal wine cups were in abundant supply at the Sasanian court if Ferdowsī's verses are to be trusted. As Shangul in turn travels to Iran, in order to see the land and the abode of his daughter by then the consort of Bahrām Gūr, seven regional kings make the trip with him. At the end of the dinner given by Bahrām in the honor of Shangul and the regional kings, the obligatory wine libations are held in a "royal banquet (*majles-e shāhvār*)" ordained by the Iranian shāh while musicians and singers give a performance, underlining the magnificence of the ceremony. All the attendants have rock crystal wine cups:

چو نان خورده شد مجلس شاهوار بیاراست پر بوی و رنگ و نگار
می آورد بر خوان و رامشگران همه چامه بود از کران تا کران
پرستندگان ایستاده بپای بهشتی شد کاخ و گاه و سرای
همه جام باده سراسر بلور طبقای زرین و زرین خنور

When the meal was finished, he ordained
A banquet fit for a king, full of incense,
color and paintings

He requested wine served on trays, and musicians,
The place was filled with songs from one end
to the other

Servants stood waiting
The palace, the throne and the living quarters
turned into a Paradise

All the wine cups all over the place were of rock crystal
The trays were of gold, and of gold, the
vessels⁴³

When a royal rock crystal wine cup is mentioned for the last time in the Book of Khosrow Parvīz, the reason for the choice of rock crystal as a favorite material is made clear. In the twenty-eighth year of his reign, the Sasanian emperor goes to the park (*bāgh*) where he usually spends two weeks during the Nowruz celebrations. While the musician Bārbad, who is about to sing to the accompaniment of his harp, is in hiding at the top of a cypress, wine is brought to the emperor:

بیامد پرچهره می‌گسار یکی جام بر کف بر شهریار
جهاندار بستند ز کودک نبید بلور از می سرخ بد ناپدید

A cupbearer with the face of an angel came
A wine cup in hand and approached the
sovereign

The world ruler took the nectar from the child
The red wine made the rock crystal invisible⁴⁴

The rock crystal, transparent like glass, allowed the color alone to be seen on the palm of the drinker's hand or, to be precise, poised on the three fingers of his right hand raised to form a temporary stand. The precious material made it fit for a king.

For this reason, the hardstone was sometimes used in the construction of the imperial throne.

In the Book of Eskandar, Queen Qeydāfeh's son is seated on an ivory throne that has rock crystal columns:

رخ شاه تابان بکردار هور نشستگهش را ستونها بلور

The king's face resplendent like the sun
His seating emplacement with rock crystal
columns⁴⁵

Ferdowsī does not say that the columns (*sotūnhā*) support the throne as understood by Jules Mohl in his French translation. The poet may have had in mind the kind of slender columns topped by dragon heads that are clutched by enthroned rulers seated cross-legged on platforms from which the columns rise vertically. Columns of this type are depicted on Iranian bronze wares of the twelfth to early thirteenth century CE where they bear no weight.⁴⁶

Rock crystal was also used on thrones, probably as applications on the pediment (*pāyeh*).

In the Book of Bahrām Gūr, the emperor is seated on such a throne:

بیش اندرون ساخته هفت پیل برو تخت پیروزه همرنگ نیل
همه پایه تخت زرّ و بلور نشستگه شاه بهرام گور

In the area in front of the inner quarters, they had made seven elephants

Upon which there was a turquoise throne of the same color as the Nile

The entire pediment of the throne made of gold and rock crystal

As the seating emplacement of King Bahrām Gūr⁴⁷

While in Hindūstān, Bahrām Gūr enters a citadel (*arj/arg*) and arrives at a place (*yekī jāy*) of which the soffit (*āsemān-ash*) is made of rock crystal. As he gets close to King Shangul, Bahrām Gūr sees him “comfortably settled” on the golden throne platform (*takht-e zarrīn*) that has a pediment entirely [covered with] rock crystal:

خرامان همی رفت بهرام گور یکی جای دید آسمانش بلور
چو آمد بنزدیک شنگل فراز ورا دید با تاج برتخت ناز
همه پایه تخت زرّین بلور نشستگه برو شاه با فرّ و زور

Bahrām-e Gūr was riding on, ambling

He saw a place of which the soffit was of rock crystal

As he came suddenly close to Shangul

He saw him wearing his crown, comfortably settled on the throne

The entire pediment of the golden throne was [covered with] rock crystal

As the seating emplacement of the king, glorious and powerful⁴⁸

The structure called *āsemān*, etymologically “sky,” refers to the soffit of a dome because the sky is metaphorically compared with the dome of a square structure. Here, Ferdowsī, who uses the architectural term, has in mind a hemispherical dome pierced with circular openings at regular intervals such as can be seen to this day in some *ḥammāms* in Iran. The openings would have been closed by small rock crystal disks instead of glass ones. Such glass disks moulded with Ghaznavid royal figural motifs have come out of commercial digging in the modern state of Afghanistan.⁴⁹

The use of rock crystal in royal throne construction and in palatial architecture echoed in the *Šāhnāme* confirms the important place that the material held in Iranian art in Ferdowsī's time, presumably continuing a tradition well established in Sasanian times.

A passing mention in the Book of Eskandar indicates that rock crystal was the preferred material for royal use where glass was otherwise the norm. At the end of a long march, Eskandar catches sight of a palace with lapis-lazuli bricks and a topaz (*yāqūt-e zard*) roof erected at the top of a peak. The lamps (*qandīlhā*) hanging from the roof are made of rock crystal:

همه خانه قندیل های بلور میان اندرون چشمه آب شور

The entire building had rock crystal lamps

At the center of the inner quarters, there was a fountain of salt water⁵⁰

The mythical character of such a palace is clear enough. Nevertheless, the use of rock crystal for making small hanging lamps similar to glass examples is implied by this description of an imaginary monument.⁵¹

The emission of light was considered to be best perceived through rock crystal, as the mention of a rock crystal cup in a comparison made by Ferdowsī in the same Book of Bahrām Gūr implies. Celebrations take place following the wedding of Sapīnūd, a daughter of the King of Hindustan, Shangul:

سپینود با شاه بهرام گور چو می بود روشن بجام بلور

Sapīnūd with Shāh Bahrām Gūr

Was luminous like wine in a rock crystal cup⁵²

While the *Šāhnāme* cannot be held to be the equivalent of a geographer's or a chronicler's report, the repeated rock crystal mentions show that the material was embedded in the Iranian artistic tradition: for the imaginary narrative to be evocative, it had to be connected to the reality of the environment.

The same remark applies to the *Garšāspnāme* composed in the first half of the eleventh century by Asadī Tūsī in the manner and meter of the *Šāhnāme*. By contrast with Ferdowsī, Asadī Tūsī mentions a variety of rock crystal vessels. The models go back to Iranian antiquity and con-

tinued to be made in Islamic times.

Early on, when describing the banquet given by King Asreṭ to King Zāḥḥāk in a mythical ancient Iran, the poet conjures the image of scores of rock crystal wine boats, a model that goes at least as far back as the early first millennium BCE in Iran:⁵³

دم مشک از مغز برمیغ شد دل میغ ازو عنبر آمیغ شد
ز عکس می زرد و جام بلور سپهری شد ایوان پر از ماه و هور

The whiff of musk went up from its substance above the clouds

By it, the heart of the clouds was laden with amber

By the reflection of yellow wine and rock crystal cups
The vaulted palace was turned into a sky full of moons and suns

In the last hemistich, the vaulted palace (*ayvān*) is compared with the sky which, in the Iranian tradition, is thought of as a hemispherical cupola. This sky is filled with moons, the poet says, because wine boats reproduce the profile of the crescent moon, and with suns because the wine they hold is thought of as flowing sunlight.

Later, Asadī Ṭūsī in his enumeration of the paraphernalia of a banquet given for the Khāqān of Chīn, mentions one of the earliest types of wine vessels from Iranian antiquity, the wine leg.⁵⁴ The poet does it when evoking the participants:

کمر بسته در پیش خوبان پرست همه باده و بادبیزان به دست
چنان روشن از می بلورین ایاغ کز او کور دیدی به شب بی چراغ

Their belts fastened, standing in front of the beauty worshippers,

All holding a wine vessel (*bādeh*) and a fan (*bād-bīzan*)

The rock crystal *ayāghs* [were] made so brilliant by the wine

That with them a blind man could see at night without a lamp⁵⁵

The occurrence of a Turkish word, *ayāgh*,⁵⁶ which means “leg” is a departure from Asadī Ṭūsī’s almost exclusive use of Persian vocabulary in the *Garšāspnāme*. The most plausible explanation for the adoption of a noun from a foreign

language is the need to characterize the specific vessel. Called in Persian *pāy-e bādeh/mey/sharāb*, literally “wine leg” (see previous note), the compound noun is not as easily fitted into a verse.

A third type of wine vessel inherited from the pre-Islamic past is mentioned by Asadī Ṭūsī when giving details about the banquet with which Fereydūn greets the arrival of Narīmān. In one couplet, the poet evokes the grandees of the realm holding a rock crystal *takūk* with one hand and a *pāloḡh* with the other:

هزار از بزرگان خسروپرست تکوک بلورین و پالغ به دست

Thousands of grandees devoted to the king
Holding a rock crystal *takūk* and a *pāloḡh*⁵⁷

Asadī Ṭūsī enters the noun *takūk* in the *Loghat-e Fors*, “The Lexicon of the Ancient Iranians,” compiled by him sometime in the first half of the eleventh century:

تکوک: گاوی باشد سفالین یا زرین یا از چیز دیگر که بدان شراب
خورند

Takūk: is a bull made of ceramic or gold, or any other material, in which one drinks wine.⁵⁸

The poet-cum-lexicographer supports this gloss with a couplet by Rūdakī which indicates that this was a vessel used in royal contexts. It is probably drawn from a *qaṣīdeh* [long ode] composed as a panegyric on a Samanid ruler which began with a celebration of the spring. This occasion would have been the Nowruz festival, “the festival of Fereydūn (*jashn-e Fereydūn*),” the mythical founder of the first dynasty of Iran, the Kayāniān:

خور بشادی روزگار نوبهار می‌گسار اندر تکوک شاهوار

Drink merrily at the time of the new spring
Pour out wine in the royal *takūk*

While animal-shaped vessels continued to be made for centuries, the noun *takūk* which transcribes in the Arabic alphabet the Middle Persian (*Pahlavī*) name *takōk*⁵⁹ was no longer used after Asadī Ṭūsī’s time, nor indeed was *pāloḡh*, a wine horn. Both terms gave way to other Persian names. For bull-shaped vessels, it was *gāv-e*

bādeh, “wine bull” or, for short, just *gāv*, “bull/cow.” For *pālogh*, it was *shākh-e bādeh/mey/ṣabūh* (literally “wine horn” and for *ṣabūh*, “morning-banquet horn”). Proof that *takūk* had become obsolete is provided by later dictionaries, such as the *Borhān-e Qāteʿ*, which only cite other couplets from the *Garšāspnāme* in support of their gloss of the noun *takūk*.

Asadī Ṭūsī’s choice of two archaic words in the *Garšāspnāme* points to his awareness that they perpetuated a usage preceding the Islamic period.

Indeed, the poet mentions several times vessels drawn from Iranian antiquity when describing banquets that all take place in the earliest past of Iran according to Iranian traditional historiography.

Five couplets down, he cites once more the *ayāgh*, “the wine leg,” encountered above:

می زرد بد در بلورین ایاغ چو در آب پاک از نمایش چراغ

The yellow wine was in the rock crystals *ayāghs*
In its appearance, like a lamp in clear water⁶⁰

As before, the comparison of the wine with a lamp conveys the traditional equation of wine with flowing light that Persian poetry repeatedly echoes.

In the same passage recounting the banquet given by Fereydūn in honor of Narīmān, we learn that modern rock crystal types appeared alongside those derived from ancient Iranian usage. The couplet mentions the basin with high vertical sides called *lagan*:

طبق های نقل از عقیق یمن پر از مشک کرده بلورین لگن

Noql trays of carnelian from Yemen
A rock crystal basin (*lagan*) filled with musk⁶¹

A fourth rock crystal type of object seen at one of the banquets described by Asadī, however briefly, is an early model that apparently went out of use after the tenth century CE. This is the four-lobed cup, with two elongated lobes in the central section.

Asadī Ṭūsī mentions it when describing in just two couplets a wine banquet *à-deux* briskly arranged for themselves by the marshal (*sepahdār*) leading the Iranian army and the daughter of the Roman Caesar who had arrived in Iran. The poet uses the word *piyāleh*, which in Persian refers to

a wide shallow wine cup without a handle:

نشستند و بز می نو آراستند به می یاد یکدیگران خواستند
بلورین پیاله ز می لاله شد کف می کش از لاله پر زاله شد

They sat and arranged a fresh banquet
They drank wine to the [eternal] memory of each other

The rock crystal *piyāleh* was turned into an anemone by the wine

The hand that drains the wine was filled with dew by the anemone⁶²

Bowls are compared in early poetry to the wild anemone called *lāleh*, which etymologically means “the red one.”⁶³ It applies to shallow four-lobed vessels with two longer lobes in the median area, known among others, in earthenware painted overglaze in golden colors (so-called “lustre ware”) from tenth-century CE Iran.⁶⁴ Asadī Ṭūsī says that the *piyāleh* has been turned into a *lāleh* because the red wine alone is visible in its transparent rock crystal container. He then adds that the hand “which draws the wine (*mey-kesh*) has been filled with dew” by the anemone because the rock crystal vessel, transparent like dew, is held by the hand.

The range of rock crystal types of vessels reflects Asadī Ṭūsī’s awareness of the prominent display of rock crystal ware at the Iranian court. Each time the poet describes a royal banquet, however briefly, rock crystal vessels are mentioned.

When Fereydūn, the mythical founder of the Ancient Iranian Keyanid dynasty, holds a banquet for Garšāsp, the Shāh of Nīmrūz, and Narīmān, shallow wine cups of the *piyāleh* type appear:

شد ایوان چو خرم یکی بوستان در آن بوستان گل رخ دوستان
بلورین پیاله ز می لاله شد ز بر دود عود از بر زاله شد
قنینه گرسست از می لعل فام بنالید نای و بخندید جام

The vaulted hall (*ayvān*) became like a joyous garden
In that garden, the roses were the friends’ faces

The rock crystal *piyālehs* were turned into anemones by the wine

Above, the vapor of the aloe wood came out of the dew

The carafes (*qanīneh*) were made to cry by the red wine
The flutes lamented and the wine cups smiled⁶⁵

In the second couplet, Asadī Ṭūsī makes the traditional comparison of wine with the red color of the wild anemone (*lāleh*) and evokes the vapor of slow burning aloe wood coming out of incense burners as transparent as dew. Filled with wine, the *piyāles* become *lālehs*. The poet, who provides material details in just three couplets, devotes, characteristically enough, one hemistich to rock crystal vessels, in this case the *piyālehs*.

Asadī Ṭūsī's consistency in associating royal banquets with the use of rock crystal vessels to the exclusion of any other specific objects implies that these would have been highly evocative of court usage to mid-eleventh-century readers.

Fakhr al-Dīn As'ad-e Gorgānī, a contemporary of Asadī Ṭūsī who wrote the romance *Vīs o Rāmīn* by drawing on a Pahlavi source, mentions rock crystal wine boats among royal presents. The precious gifts dispatched by the Šāhānšāh for a forthcoming wedding include large numbers of crescent-shaped rock crystal and gold cups:

بلورین بود و زرین هفتصد جام به سان ماه با زهره گه بام

Of rock crystal and of gold were seven hundred wine cups

Like the Moon with Venus at the time of dawn⁶⁶

Elsewhere, when describing the ferocious beating that the Šāhānšāh inflicts on Queen Vīs, Gorgānī uses rock crystal as a term of comparison twice within five couplets:

ز تخت شیرپا اندر کشیدش میان خاک و خاکستر کشیدش
بپیچیدش بلورین بازو و دست چو دزدان هر دو دستش بازپس بست
پس آنگه تازیانه زدش چندان ابر پشت و سرین و سینه و ران
که اندامش چو ناری شد کفیده وزو چون ناردانه خون چکیده
همی شد خونش از اندام سیمین چو ریزان باده از جام بلورین

He pulled her down from the throne with lion legs
He pulled her on the earth and dust

He dragged her rock-crystalline arms and hands
And tied her two hands in her back as [is done] with thieves

Then he hit her with a whip so much
On the back, on the bottom, on the chest and
on the thighs

That her limbs burst open like a pomegranate
And that blood flowed out of her like pomegranate juice

Her blood came out of her silvery limbs
Like wine pouring out of a rock crystal bowl⁶⁷

These verses, among others, show that in Gorgānī's mind rock crystal had an evident evocative power, which implies a well-established tradition of making rock crystal objects.

Almost a century and a half later, Neẓāmī, writing in Ganja, the metropolis of Shīrvān in what is today the Republic of Azerbaijan at the north-western end of the Iranian world, found rock crystal vessels equally evocative of magnificent royal possessions and celebrations.

When Neẓāmī tells in the *Šarafnāme* the "story" (*dāstān*) of the dispersal of Dārā's treasure, the very word "story" shows that he makes no pretence of giving a historical account but the material description of the objects, weapons, and textiles clearly reflect the reality of his time, the late twelfth century CE. We thus learn that a royal treasure included the rock crystal trays that served as portable tables when set up on trestles:

طبقهای بلور و خوانهای لعل طرایف کشان را بفرسود نعل

Rock crystal trays and spinel trays
Wore out the horseshoes of the [horses]
pulling the precious objects⁶⁸

Later, when describing Eskandar's special tray (*khwān*) laid out in a solemn royal banquet, Neẓāmī indicates that the portable tables could be poised on a central stand. This is implied by the comparison of the tray with a daffodil at the top of a green/turquoise (*sabz*) stalk:

ز بلور تابنده خوانی فراخ چو نسرين تر بر سر سبز شاخ

Of glowing rock crystal a large tray
Like a fresh daffodil at the tip of a green stalk⁶⁹

Elsewhere, the *Šarāfnāme* couplets reveal that the food bowls (*kāseh*), which would normally be made of glazed fritware in their luxury version, were sometimes made of rock crystal for the ruler. When describing Eskandar's special tray (*khwān*) at the banquet ordered by Nūshābeh, Neẓāmi writes that it supported four bowls made of pure rock crystal (*chār kāseh ze bolūr-e nāb*):

نهاده یکی خوان خورشید تاب برو چار کاسه ز بلور ناب

They had laid out a tray (*khwān*) glowing like the Sun
Laden with four bowls (*kāseh*) of pure rock crystal⁷⁰

Four rock crystal pieces carved in the Sasanian manner that have come down to us support the idea that rock crystal vessels were indeed made under the Sasanian dynasty (224–651 CE).

One is a famous phiale with a gold frame holding a rock crystal disk in the central roundel on which a Sasanian emperor is seen enthroned (fig. 1).⁷¹ Formerly preserved in the treasury of the royal Basilica of Saint-Denis on the outskirts of Paris, and now kept in the Cabinet des Médailles within the Paris Bibliothèque Nationale, it has been known since the Middle Ages as the "Tasse de Salomon." This phrase obviously translates a Persian name, *Jām-e Soleymān*, "The Wine Cup of Solomon."⁷² The piece must have been acquired from a Middle Eastern source, which passed on the name and might have been Arab, Iranian, or, in the period following the fall of the Sasanian dynasty, Turkish: the phrase could be used in all three languages.

Roman Ghirshman, in a brief mention of the piece, merely noted that "the so-called 'Tasse de Salomon' would have been offered to [Emperor] Charlemagne by [The Abbasid Caliph] Harun al-Rashid."⁷³ The persistence of the Middle Eastern name might reflect the lingering memory of such a diplomatic gift.

In a recent commentary on the phiale, Zainab Bahrani, who referred to it as the "Cup of Khosrow I," noted the presence of the Middle Persian inscription on the foot [where it states the weight as is frequently the case with Sasanian precious metal vessels] and concluded that it dates "to the sixth century CE."⁷⁴ Actually, the Pahlavi inscription does not demonstrate that the vessel dates from the Sasanian period. The use of Middle Persian, or Pahlavi, as the official

language of the Sasanian Empire is referred to in early Persian sources of the Islamic period, persisted long into the Islamic period. It continued on coins struck by the Umayyad caliphs until the monetary reform of 'Abd al-Malik in 674 and for considerably longer on the coinage of independent Tabarestān. The markedly rigid rendition of the enthroned king might be used as an argument supporting a date within the Islamic period although that cannot be said to be conclusive. The question remains open for the moment. The most that can be advanced about the date of this remarkably elaborate phiale is that it might belong to the Sasanian age, but if so, it is probably closer to the fall of the dynasty in 651 than to the reign of Husraw I in the previous century.

A second object which has been described in the twentieth century as "Sasanian" similarly associates gold framework and a carved rock crystal piece shaped like a boat, probably destined to contain some make-up product such as kohl (*vasmeh*).⁷⁵ Two formalized blossoms fore and aft are separated on the long side by rhomboidal repeat patterns. These reflect a love of geometrical design that markedly increased in the early Islamic period, even if criss-cross patterns as such go back to the earliest antiquity preceding the arrival of Indo-European speakers in the lands that were to become Iran. Dug up in unknown circumstances in Shūsh (Susa), where it was bought by the French archeological expedition, it raises the same questions concerning its period as the magnificent Tasse de Salomon. Zainab Bahrani cautiously placed it in the "seventh or eighth century CE."

Closely related to the previous piece, a second rock crystal boat, 8.2 cm long and 4.7 cm wide appeared at a Geneva auction in 1985 (fig. 2).⁷⁶ Its provenance was given as "Iran or Iraq" while the heading read "an Abbasid rock crystal dish, ninth–tenth century."

Its pattern would be consistent with a Sasanian dating. The most characteristic motif, a roundel carved in sunken relief on the underside of the vessel, encloses four almond-shaped geometrical figures which join with each other at the tip. They frame a large bead that occupies the central area. This motif is repeated twice on each side. A criss-cross pattern is engraved with great regularity on the flat rim. Criss-cross patterns go back to the earliest antiquity of Iranian art and con-

tinued into the Sasanian period when they were depicted on the garments worn by royal characters.⁷⁷ They can still be seen on the garments of various characters depicted on polychrome pottery from Neyshābūr probably dating from the ninth century CE.⁷⁸

Confronted ibex head profiles carved fore and aft are noticeable for their huge horns handled as scrolls. Far more pronounced than those painted on tenth century CE glazed earthenware, they might be invoked as an argument in favor of a pre-Islamic dating, without being conclusive.

The best that can be said at this stage is that a date toward the end of the pre-Islamic period, perhaps in the early seventh century CE, is a plausible proposition, but no more. The later seventh or early eighth century CE is no less conceivable.

A third rock crystal boat 5.1 cm long and 3 cm wide surfaced ten years later at a London auction where it was also ascribed to Iran ("Persia" in the Victorian-age denomination used by the auction house) and given a date "circa eighth century [CE]."⁷⁹ Here, eight tangent roundels enclosing the same motif are carved on the underside. A pleated chain runs above the roundels. The flat rim is carved with a continuous chevron also executed with attention to regularity. Dating it presents the same difficulties as the previous miniature rock crystal boat. Both appear to have been made around the same time, perhaps in the seventh century, presumably, in the same area. A certain lack of sophistication in the execution is noticeable. Different levels of quality are interesting in themselves. They imply a well-established tradition of rock carving, with various workshops catering to different strata in the Iranian establishment on the eve of the advent of Islam or in the very early stages of its diffusion.

Panegyrists on Rock Crystal Vessels

By contrast with the imaginary narratives of Ferdowsī, Asadī Ṭūsī, Gorgānī, and Neẓāmī, the information yielded by early Persian panegyrics amounts to direct documentary evidence. Poets celebrating rulers and their surroundings refer to real life contexts.

In the generation that followed Ferdowsī's, 'Onṣorī, the main court poet attached to the Ghaznavid ruler Sulṭān Maḥmūd, mentions rock crystal four times for its color in various compari-

sons.⁸⁰ Much of the poet's oeuvre is now lost. The seventeenth century CE lexicographer Sorūrī cites one of several couplets in the *Khafīf* meter from an otherwise unknown *masnavī*, as romances in couplets with inner rhyme are called:

گاه اقبال آبگینه خنور بستاند ز تو عدو به بلور

When auspices are favorable [for him] the enemy
Grabs from you the glass vessel instead of the
rock crystal one⁸¹

The colorful maxim means that the enemy, when victorious, rifles everything regardless of value: if there are no rock crystal vessels to be carried away, ordinary glass ones will do.

The sight of rock crystal wares must have been familiar enough for 'Onṣorī to compare spontaneously melting frost over the grass of open country with rock crystal becoming dissolved, as he does in a panegyric on Sultan Maḥmūd:

بلور حل شده بینی به پی باد صبا
شکن گرفته چو زلف بتان ترکستان

You see rock crystal dissolved under the breeze
All reduced to curls like the hair of the
buddhas of Turkistan⁸²

The allusion to the curls of the hairdo of Buddhist clay figures reveals the poet's awareness of Buddhist shrines, many of which were no doubt still standing more or less intact in his time. 'Onṣorī's familiarity with rock crystal objects is again echoed in the opening couplet of a quatrain celebrating the beauty of an unnamed character. The poet evokes "the pattern of rock crystal (*naqṣ-e bolūr*)" which is a metaphorical image for the character's face enclosed by his/her two tresses:

سیمین بر تو سنگ بپوشد بسمور زلفت بشبه همی کند نقش بلور

He covers the silver-breasted, stone-hearted one with
sable

Your two tresses draw the rock crystal
pattern with jet/black coral⁸³

In a panegyric composed on the occasion of the Nowruz celebrations, which begins with the description of springtime nature, Manūchehrī Dāmghānī, a court poet contemporary, coins a

couplet comparing flowers and their smell with scents in their containers:

وان نسترن چو مشکفروشی معاینه
در کاسه بلور کند عنبرین خمیر

And that dog rose is a commercial undertaking: like musk-selling

It makes amber paste in a rock crystal bowl
[*kāseh*]⁸⁴

Such as it is, the couplet may not be the most subtle verse written by a Persian poet, but it has some documentary merit. Manūchehrī informs us that truncated conical bowls of the *kāseh* type common in pottery and glass were also made in rock crystal for court use.

Farrokhī, another court poet who was a personal friend of Sultan Maḥmūd the Ghaznavid, urges the cupbearer to pass around the rock crystal cup (*jām-e bolūrīneh*) filled with wine that has not been adulterated by being cooked. Thus, the wine will be as red as the cupbearer's own face. In a panegyric on the Amīr Abū Aḥmad Moḥammad, the son of Sultan Maḥmūd, the poet exclaims:

مجلس بساز ای بهار پدram واندرفکن می به یکمنی جام
همرنگ رخسار خویش گردان جام بلورینه از می خام

Ordain a banquet, O exquisite *vihāra*
And toss the wine in a one-mann cup

Turn into the same color as your face
The rock crystal cup with uncooked wine⁸⁵

The number of verses by early Ghaznavid poets such as 'Onṣorī and Farrokhī could probably be multiplied three or fourfold if it were not for the loss of a large part of their work which fell into oblivion as literary tastes changed. Of the four most-admired poets at the courts of Sultān Maḥmūd and his successor Mas'ūd I that Amīr Mo'ezzī mentioned a century later in a well-known couplet,⁸⁶ only two are still represented by their divans. While Farrokhī's is apparently preserved intact, 'Onṣorī's is clearly missing sections, to say nothing of his *masnavī* romances, which are lost.⁸⁷ The divans of the other two poets mentioned in Amīr Mo'ezzī's couplet, Zeynabī ('Abd al-Jabbār Zeynabī 'Alavī) and 'Asjadī (Abū Naẓar 'Abd al-'Azīz b. Manṣūr 'Asjadī Marvazī)

have not come down to us.

Yet even the few couplets by 'Asjadī preserved in anthologies show that he, too, found rock crystal evocative enough to coin metaphors mentioning the hardstone.

A quatrain of his was long remembered:

در جسم پیاله جان روانست روان در روح به جسم آن روانست روان
در آب فسرده آتش سیال است در درج بلور لعل کانست روان

In the body of the *piyāleh*, life is the flowing soul
In the spirit of its body, the soul is flowing

In frozen water there is liquefied fire
In the rock crystal casket mineral spinels are flowing⁸⁸

Each couplet is preserved in an anthology. The first one was reproduced in the nineteenth century by Moḥammad Ṣādeq Hedāyat in the monumental anthology titled *Majma' al-Foṣaḥā*, "The Tray of the Eloquent," and the second one retained the attention of Ṣā'eb Tabrīzī in his *Ṣāfine-ye Ṣā'eb* put together in the seventeenth century.⁸⁹

The first couplet deals with a theme that also occurs in another quatrain by 'Asjadī:

آن جسم پیاله بین، بجان آبستن همچون سمنی به ارغوان آبستن
نی نی غلطم پیاله از غایت لطف آبیست به آتش روان آبستن

That body of the *piyāleh*, look: it's pregnant with the soul/a life

Very much like a jasmine pregnant with Judas Tree blossoms

No! No! my fault: the *piyāleh* in its extreme kindness
Is water pregnant with fire that is flowing⁹⁰

'Asjadī, who died in 432/11 September 1040–30 August 1041,⁹¹ would have composed these quatrains sometime in the early eleventh century.

Around the same time, the Isma'īlī theologian and missionary Nāṣer Khosrow, who was an indefatigable traveller until he retired to the remote small town of Yomgān in the mountains of Badakhshān, found time to write thousands of verses that make up a large divan.

He, too, mentions rock crystal. When coining a maxim that implicitly advocates stoic resignation in the face of adversity, Nāṣer Khosrow cites a rock crystal mug and an Arab horse as signs of

their owner's wealth:

پای تو مرکب است و کف دست مشربه است
گر نیست اسپ تازی و نه مشربه بلور

Your legs are your steed and the palm of your hand is your mug

If there is no Arab horse and you do not have a rock crystal mug⁹²

A generation later, Azraqī Heravī writing in Herat a panegyric on Mirānshāh b. Qāvurd⁹³ draws a comparison in which he conjures the image of jugglers tossing in the air small circular caskets called *hoqqeh* in Persian, which are mostly used for keeping gems and pearls:

جابجا ابر سپید اندر هوا بین خرد خرد
همچو بچگان حواصل بر سر دریا روان
راست پنداری نعایم بر سر شاخ درخت
بیضه سیمین نهادست از بر سبز آشیان
چون بلورین حقه‌های حق‌بازان جفت‌جفت
بر نهاده لب بلب، پر کرده از لؤلؤ میان

See the tiny, tiny white clouds in the air here and there
Like seaside boys riding on top of the waves

You might well think that the treats on the branches
Are silver eggs that they laid from their
turquoise nests high up

Like rock-crystal *hoqqehs* of jugglers, set in pairs,
Mouth to mouth, their insides filled with pearls⁹⁴

Elsewhere, in a panegyric on the Vizier Ziyā' al-Dīn Neẓām al-Molk, Azraqī evokes a vessel holding wine, which is a wine cup (*bādeh*), in a metaphor that describes rock crystal as the "mantle (*jāmeḥ*)" of wine:

باده‌ای باید که اندازد بانجم پر شعاع
آتشی باید که افروزد بگردون بر شرار
از شعاع آن یکی رخسارها یاقوت رنگ
وز شرار این دگر یاقوت ریزان بی‌شمار
از پی آن این یکی را گشته جامه از بلور
وز پی آن دگر را گشته از آهن حصار

We must have a wine cup that casts rays above the stars

We must have a fire that kindles sparks above the sky

By the rays of the former, faces take the color of rubies
And by the sparks of the latter, there are innumerable ruby fragments

As a consequence of those, for this one, rock crystal has been made the mantle

And as a consequence of these, for that one, a fortress has been made of iron⁹⁵

The fortress of iron is the brazier, in early Persian *ātašdān*, later *manqal*. The poet says that the fire of the desired wine will be such that a brazier must contain it.

Rock crystal was the precious material appropriate when the focus was on making the red color of wine visible in the vessel that contains it. In a panegyric on the Ghaznavid Sultan Bahrāmshāh (512/24 April 1118–13 April 1119–547/8 April 1152–28 March 1153), Azraqī uses the image of a rock crystal casket to coin a metaphor which refers to wine as "the spinels in the rock crystal casket (*la'ī-e bolūr-e dorj*)":

اکنون که تر و تازه بخندید نوبهار
ما و سماع و باده رنگین و زلف یار
آن زر سیم خمره و لعل بلور درج
یاقوت سیم حلقه و مرجان در شعار

Now that the new spring has smiled, fresh and young,
Here we are with music and red wine and the tresses of the beloved

With the gold in the silver jar and the spinels in the rock crystal casket

The rubies of the silver necklace and the coral with pearl marks⁹⁶

In the second couplet, four metaphorical images succeed each other to evoke the red wine (*bāde-ye rangīn*) mentioned in the first couplet. The first two metaphors evoke two vessels, a silver jar (*sīm-e khomreh*) and a rock crystal casket (*bolūr-e dorj*), thus placing rock crystal on the same level as silver among precious materials.

Drinking wine out of a rock crystal cup at the Ghaznavid court was such a firmly entrenched

custom that ‘Otmān Mokhtārī writing around the same time referred to it as a proverbial ceremonial. In a panegyric on the Vizier (*Ṣadr*) Abu’l-Mozaffar Moḥammad b. Abu’l-Faṭḥ, which opens with a hymn to springtime, Mokhtārī intones:

هزار نافه گشاید هوای مشک فروش
ز هر گلی که چو یک پاره بهرمان آید
کند حکایت جام بلور و باده لعل
سرشک ابر چو بر برگ ارغوان آید

The air which is a musk merchant opens a thousand musk bags

From every rose that appears like a *bahremān*-red gem

When the tear drops of the cloud fall upon the Judas tree leaves

They tell the story of the rock crystal cup and the spinel-red wine⁹⁷

In northwestern Iran, panegyrists likewise celebrated rock crystal vessels in connection with royal wine banquets. Speaking in the first person singular in a panegyric on the Shirvānshāh Jalāl al-Dīn Akhsitān b. Manūchehr (ca. 1149–1187), Khāqānī boasts with self-flagellating irony:

با بلورین جام بهر می مدارا کردمی
چون شکسته شد مدارا برنتابد بیش از این

I paid courtesy with a rock crystal wine cup

As it got broken, courtesy will not shine more than this⁹⁸

The poet, who thus indicates that he was taking part in the royal wine banquet, reveals that drinking wine in a rock crystal cup was a touch of refinement that good manners required at court.

Elsewhere, Khāqānī urges a cupbearer to bring wine in a rock crystal bowl which he metaphorically refers to as a casket (*hoqqeh*) full of rubies:

یاقوت بلور حقّه پیش آر خورشید هوا نقاب در ده

Bring the rubies of the rock crystal *hoqqeh*

Pour the sun with its mask of clear air⁹⁹

Wine is traditionally thought of as flowing sunlight/fire. With only thin air as a veil (*neqāb*), the sun-like brilliance of the wine will be visible in all its splendor.

Models inherited from the Sasanian age were sometimes made of rock crystal. In a panegyric in rondel (*tarjī‘band*) form on three Muslim clerics, Khāqānī mentions a rock crystal *rekāb* or eight-lobed wine boat.¹⁰⁰ He explicitly links this type of vessel with “The Magians’” Tradition (*Sonnat-e Moghān*), by which the poet means the Zoroastrian tradition. This is a way of indirectly associating the *rekāb* with the Sasanian past:

خوانچه کن سنت مغان می آر وز بلورین رکاب می بگسار
عجب است این رکاب و می‌گویی کآمد از ماه نو شفق دیدار

Prepare a small tray, follow the tradition of the Magians
And pour the wine out of a rock crystal *rekāb*

How surprising are this *rekāb* and wine: you’d think
That something like red dusk light comes out of the new moon¹⁰¹

The *rekāb* is compared with the new moon because its crescent shape reproduces the profile of the moon crescent. When filled with wine, which is thought of as flowing sunlight, it symbolizes the conjunction of the sun and the moon. This is conveyed in the fourth hemistich in a paradoxical image: red dusk light, with which wine is equated, although emitted by the sun, is coming out of the *rekāb* which has a crescent moon profile. Verses such as these show that Iranian literati were well aware that using rock crystal vessels perpetuated Sasanian tradition.

Rock crystal vessels, including pieces with figural scenes, had a long past in Iran. In 1996, Michael Vickers wrote that a small rock crystal cup in the Cincinnati Art Museum is typical of Achaemenid iconography, thus agreeing with the judgment previously made by P. R. S. Moorey.¹⁰² The British scholar pointed out parallels provided by rock crystal and glass fragments excavated at Taḳt-e Jamshīd (which he called Persepolis in keeping with Western Orientalist usage), but scrupulously noted that Oscar Muscarella considered it to be a modern fake.

These rare witnesses to the pre-Islamic period of rock crystal vessels and royal patterns prove that rock crystal ranked among the materials privileged for royal use long before the advent of Islam. The rock crystal vessels mentioned in Persian panegyrics from early times on show that the tradition was kept up like so much else in Iranian

culture in the Islamic period.

The list of the vessel models mentioned in early poetry ranging from the usual types of banquet wares to the more rarified models keeping up pre-Islamic usage such as the *pāy-e mey* is matched by a handful of rock crystal pieces. Measured against the relative frequency of mentions in written sources, the number of recorded rock crystal objects may seem disappointingly modest. This, however, is no surprise. Silver and gold plate which, if anything, is mentioned more often in literary sources has all but vanished.¹⁰³ It served as a currency reserve, melted down to mint coins the moment royal finances were strained, and was a privileged target for looters in wartime. Rock crystal vessels, easily broken, were doomed in societies frequently rocked by internal and external conflicts: the fragments excavated at Takht-e Jamshīd probably bear witness to the systematic destruction of the Achaemenid city and its royal treasures by the Greek invaders led by Alexander.

Part Two: The Rock Crystal Objects of Sasanian and Islamic Iran

Ironically, material evidence is available for the existence of a particularly rare model maintaining the usage of pre-Islamic times going as far back as the early first millennium BCE.

The Hermitage Museum Rock Crystal Wine Leg (Pāy-e Mey/Sharāb)

The rarefied model is represented by a vessel preserved in Europe where it was fitted with Baroque gilded silver mounts and ornaments in the eighteenth century and is now displayed in the Hermitage Museum in St. Petersburg (fig. 3).

When published in 1930 by Carl Johan Lamm, it was cautiously attributed to "Mesopotamia," meaning Iraq. The Swedish scholar put forward a tenth-century date and saw it as a lamp.¹⁰⁴ In the 1976 exhibition of "The Arts of Islam" in London at the Hayward Gallery, it was labelled "Egypt, Fatimid period, late tenth- early eleventh century," an attribution retained in following years.¹⁰⁵ In 1994, Avinoam Shalem adopted the attribution, while qualifying it with the adverb "possibly."¹⁰⁶ He unhesitatingly called it a

"lamp," going so far as to submit "a suggested reconstruction of its original state" in a sketch.¹⁰⁷

That reconstruction, however, is not plausible. As imagined by Shalem, the completed shape of the spout would jeopardize the stability of the object. The spout would have been even longer than the body of the vessel, which Shalem saw as a boat. In addition, the design of the curving spout rising high would have made the insertion of a wick rather awkward. The flame in direct contact with the pouring lip would have put the rock crystal at risk of cracking under the heat in contrast to a hanging lamp of the *qandīl* type where the glass or the rock crystal walls would be well away from the flame in the center.

The idea that the Hermitage rock crystal vessel reproduces a boat model does not agree with what is known of Iranian, and more generally, Middle Eastern boats: these are symmetrical.¹⁰⁸ While fore and aft may sometimes differ slightly in height, they are identical in form unlike the Hermitage vessel. In addition, the arched band linking the two sides of the Hermitage piece which would be odd in a boat makes sense once the form is recognized for what it reproduces, a shoe. Rounded at the heel, it curls up to a tip over the toes as is customary in the Middle East. The arched band stands for a strap keeping the footwear in place. It would have served a functional purpose in helping the drinker to tilt the vessel and to control the direction of the jet of wine spurting out of the long outlet.

In short, the Hermitage Museum rock crystal vessel that has been mistaken for a lamp is actually a wine drinking vessel of the rhyton category in the form of a foot, seen shod as is nearly always the case in Iranian artefacts.¹⁰⁹

This type usually called in early Persian sources "*pāy-e mey/sharāb*" "wine leg/foot" (*pā/pāy* means both in Persian), or, as I believe, *ayāgh*, the Turkish noun for leg, was only identified in 2000 in the present writer's monograph "The Iranian Wine Leg from Prehistory to Mongol Times" on the triple evidence of early Persian lexicography, early Persian poetry, and early Persian historical chronicles.¹¹⁰ The many pouring vessels going back to the early first millennium BCE and some rare vessels from the beginning of the Islamic period provide material confirmation of the written accounts.

The occasional use of a Turkish loanword for leg, *ayāgh*, by early Persian poets who do not oth-

erwise borrow words from languages other than Arabic, such as *Qaṭrān Tabrīzī* in the first half of the eleventh century, suggests that the wine leg was perceived as belonging to a non-Iranian culture. This implies that its erstwhile symbolism was forgotten and the *raison d'être* for the shape of the model no longer known.

In a short panegyric on a ruler of Arrān (upper Qarābāgh in the modern Republic of Azerbaijan), Amīr Abu'l-Ḥasan 'Alī Lashkarī, Qaṭrān says:

خدايگان جهان لشکری که تیغ و کفش
ز جنگ وجود نخواهد بهیچ وقت فراغ
جدا میاد سه چیز از سه چیز او شب و روز
ز تن سلامت و از دل خوشی ز دست ایغ

Lord of the World, Lashkarī, whose sword and palm
Do not ever want to bid farewell to combat

May three things never be separated from three of his
features

Health from his body, happiness from his
heart, the *ayāgh* from his hand¹¹¹

Lexicography is important owing to its matter-of-fact character. It shows that the wine leg was still used in the early fourteenth century CE. In his dictionary titled *Şeḫāḥ al-Fors*, "The Correct Usage of the Iranians," Ebn-e Hendūshāh has an entry on *pay*, "[wine] leg," with a short "a" as the alternative form of *pāy* with a long "a":

ز آن می کز کام بویش تا نرفت اندر دماغ
هیچ غم از طبع اهل فضل برنگرفت پی

As long as the bouquet of that wine did not rise from
the cup into the nostrils

The [wine] leg did not lift the chagrin from
the mood of the eminent ones¹¹²

Other nouns for the wine leg were *pāy-e tarsā*, "the Christian's leg," because wine was often obtained from Christians, and *pāy-e pīl* or *pīlpā*, "the elephant's leg," hinting at its large size.

In early Persian poetry, the wine leg is mentioned at distant intervals in the eleventh century (see above) and in the twelfth century.

In the mid-twelfth century CE, Khāqānī says in a panegyric on the Shīrvānshāh Faḵr al-Dīn Manūchehr, who ruled around 1140–1160 CE:

خورده برسم مصطبه می در سفالین مشربه
قوت مسیح یکشنبه در پای ترسا ریخته

Having drunk wine in a ceramic mug according to the
tradition of the crypt

And poured the Messiah's sustenance for one
night in the Christian's leg¹¹³

The first hemistich which says that wine drinking proceeded "according to the tradition of the crypt" may be understood to mean that it took place away from the common run of men. Royal wine banquets were obviously not held in fear from any quarter. This phrase would therefore appear to point to the secrecy required by the esoteric meaning of the ceremonial, in turn implying that the wine leg was reserved for such a context.

Qomrī Āmolī, who also wrote in northern Iran, in Āmol the metropolis of Ṭabarestān (now Māzandarān) muses in a quatrain written around the same time:

امروز منم همه زده رای شراب
چون دردی خم فتاده در پای شراب
در گشتی دل ز باده بحری در ده
تا بو که شوم غرقه دریای شراب

Today, I have my judgement completely stricken by
wine

Like the dregs of the jar fallen into the wine
leg

Pour out a sea of wine in the boat of my soul [lit.:
"heart"]

That I might become a drowned man in the
sea of wine¹¹⁴

By the fourteenth century, mentions of the wine leg had almost vanished from poetry. Ebn-e Hindūshāh in his entry on *pay* was reduced to quoting a verse by his own father (see above) when looking for an example of the use of the word with that meaning. Moḥammad Pādeshāh, who wrote in the nineteenth century his vast dictionary under the pen name Shād, opted for a line by the utterly obscure fourteenth century poet Badr Chāchī when seeking to support his gloss of *pāy* with a couplet written as closely as possible to his own time. Badr Chāchī's couplet composed in the manner of Khāqānī was, in fact, inspired by the latter's *tarjīband* [rondel] in praise of Jalāl al-Dīn

Manūchehr quoted above:

بکر است خم مریم صفت مهد مسیحش جام زر
خون دل مریم نگر در پای ترسا ریخته

Virgin is the jar with the attributes of Mary, the gold cup is the cradle of the Messiah

Look at Mary's heart blood poured into a Christian's Leg¹¹⁵

The couplet is a display of literary artifice rather than an allusion to objects in a real context. In the first hemistich, the profile of a jar is compared with the rotundity of pregnant Mary while the gold cup is compared with a cradle filled with the blood of birth-giving, because wine is traditionally seen as a symbolical substitute for sacrificial blood. The line may be uninspiring but verses about the wine leg are relatively scarce. The lexicographer may have retained the first one he stumbled upon to back up the meaning of *pāy-e sharāb*.

Ayāgh, from the Turkish for "leg,"¹¹⁶ an alternative name, may have been used by Asadī Tūsi and others (see above) because in some cases it fitted more easily in verse than the compound noun.

The wine leg appears to have been a relic from an even more distant past than the other vessels taken over from antiquity in Islamic Iran, such as wine boats or ewers in the shape of ancient sacrificial animals like wine bulls and wine birds. The symbolism of these was obvious and often spelled out in Persian poetry whereas the erstwhile meaning of the wine leg, no longer understood, is never explained. The wine leg can be shown through actual objects to have been in use in Iran from around the early first millennium BCE until about the eighth century CE. Later examples have not been recorded, although mentions of the wine leg still occur in literature centuries later.

As matters stand now, the only plausible provenance for a vessel in the shape of a foot or leg concealed in its footwear is Iran. In short, the Hermitage Museum rock crystal vessel is a *pāy-e sharāb* or *ayāgh* of the "rhyton" type that projects a jet of wine when raised as did the wine legs in antiquity. It would have appeared at royal banquets among other vessels perpetuating pre-Islamic usage such as the rock crystal *rekāb* mentioned by Khāqānī in a panegyric on the Shīrvānshāh Jalāl al-Dīn Manūchehr (see above). The characterization of the Hermitage Museum piece as a "Lamp, Iraq

(?) Tenth Century" by N[atalya] Venevtseva¹¹⁷ and by Avinoam Shalem can definitely be dismissed.

The Thyssen Bornemisza Rock Crystal Wine Horn (Shākh-e Bādeh)

A rock crystal vessel maintaining Sasanian tradition within the one hundred years or so that followed the fall of the dynasty in 651 CE is now known through a material example (fig. 4). This is a wine horn called in Persian literature, notably in early Persian poetry, *shākh-e bādeh*, "wine horn," *shākh-e sharāb*, "wine horn [using the Arabic loanword *sharāb* for wine]," *shākh-e šabūh*, "early morning wine banquet horn," and other phrases.¹¹⁸

Preserved in the West since at least the seventeenth century CE as shown by the gilded mounts, German or Flemish datable to the late sixteenth or early seventeenth century, the rock crystal wine horn in the Thyssen-Bornemisza Collection lacks any engraved motifs.¹¹⁹ The curvature and the proportions come close to those of a wine horn represented among the paraphernalia of a Zoroastrian wine banquet held as part of the Nowruz celebrations that are depicted on a silver phiale in the Arthur M. Sackler Gallery in Washington, DC (fig. 4a).¹²⁰

That wine horn lies on the ground not far from a jar into which wine will be flowing through a sieve set into its mouth to ensure the desired clarity untainted by dregs. Nearby, two ewers with twisted fluting and two truncated conical footed bowls of a model known in the ninth–tenth century CE are laid on the ground. These indicate that the wine is being filtered for the royal couple depicted further away. On the left, a Zoroastrian priest, his mouth shielded by a mask to prevent his breath from soiling the purity of the wine in the ewer that he carries in his left hand while balancing the small tray (*khwāncheh*) laden with several cups on his right hand walks away toward the princely couple. The scenes depicted under the five arches of a rotunda match those of the Nowruz celebrations described by 'Omar Khayyām in the *Nowrūznāme*.¹²¹

The similarity of the Thyssen-Bornemisza rock crystal wine horn and the wine horn depicted in a minute size on the Arthur M. Sackler Gallery silver phiale is as close as it could be given the difference in scale. It extends to the deeply

engraved lines that separate succeeding simulated shallow grooves on the rock crystal piece. There is therefore good reason to assume that the Thyssen-Bornemisza rock crystal wine horn dates from the same period as the phiale in the Arthur M. Sackler Gallery, that is, probably from the first century following the collapse of the Sasanian Empire in 651 CE.

Like the rock crystal *rekāb* (eight-lobed wine boat) requested by Khāqānī when recommending that a small tray be prepared in keeping with “Magian,” that is, Zoroastrian, tradition, the wine horn is the legacy of the immediate Sasanian past. It is broadly contemporary with the Hermitage Museum *pāy-e sharāb* (wine leg). Objects such as these make it certain that rock crystal vessels were already made in Sasanian times. Material reality here confirms the inferences that could be drawn from the mention of rock crystal cups in the *Šāhnāme* and the *Garšāspnāme*.

Made from rock crystal of the highest purity, the Thyssen-Bornemisza wine horn was almost certainly a royal piece, like the wine horn in the scene represented on the Nowruz bowl in the Arthur M. Sackler Gallery.

So were probably some vessels that have long been or still are summarily dubbed “Fatimid” without further explanation. No attention has been paid to their exact function.

Two Khorasani Rock Crystal Trays in Venice

That is the case with two small circular trays, two *khwānchehs* to use Khāqānī’s word, which are preserved in the treasury of the Basilica of San Marco in Venice.

The Khorasani Tray inv. nr. 126 in the San Marco Basilica

The model with a broad flat underside and a wide horizontal rim only slightly higher than the well is alien to Fatimid Egypt (fig. 5).¹²² It reproduces a shape that occurs in Iranian glazed fritware of the tenth and eleventh centuries, in particular in calligraphic pottery from Neyshābūr.¹²³ The rim is engraved with a typical Khorasani motif, a rhythmical continuous scroll carrying sixteen ibex head profiles reduced to abstraction. Shading rendered by parallel lines neatly engraved is



Fig. 1. Central inset of the phiale known as the “Tasse de Salomon.” This phrase translates the Persian *Tās-e Soleymān*. Iran, sixth–seventh century CE. Bibliothèque Nationale, Paris. After Hahn and Shalem, eds., *Seeking Transparency*.



Fig. 2. Cosmetic boat-shaped vessel. Iran, probably sixth–seventh century CE. Art Market. After Sotheby’s, *Islamic Art* (Geneva 1985).

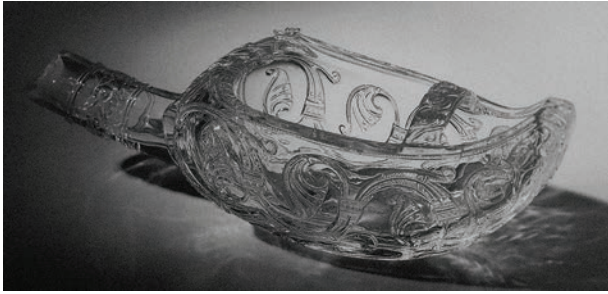


Fig. 3. The wine thought of in the Iranian tradition as the symbol of blood would have been seen as the metaphorical image of the blood of the human leg in its footwear, making it *pāy-e mey* "wine leg." Iran eighth–ninth century CE. The Hermitage Museum, Saint Petersburg. After Piotrowsky, ed., *Zemnoye Iskustvo-Nebesnaya Krasota*.



Fig. 4a. Detail of a silver wine cup (*piyāleh*), northern Iran, eighth century CE. The bull-headed wine horn (*shākh-e bādeh*) laid on the ground has the same curvature and broad ribs as the Thyssen Bornemisza rock crystal wine horn in fig. 4. It follows the Sasanian tradition, which was kept up in independent Tabarestān. However, a late Sasanian date in the first half of the seventh century is also conceivable. Photo: Melikian-Chirvani.



Fig. 4. Wine horn (*shākh-e bādeh*). Iran, eighth century CE. The Thyssen-Bornemisza Collection. Photo: Melikian-Chirvani.

a device frequently used in Iranian pottery and metalwork alike.

The Khorasani Tray inv. nr. 102 in the San Marco Basilica

A second rock crystal circular tray, 20.1 cm across, is preserved in the treasury of the Basilica of San Marco (inv. nr. 102) (fig. 6).¹²⁴ It is close enough in shape, size, and, broadly speaking, in pattern to the first tray. Both presumably entered the treasury together and are likely to have originated in the same artistic center, if not even in the same workshop.

The rim with seven wide lobes lightly indicated, of a kind found in Iranian glazed fritware,¹²⁵ differentiates it from the previous tray. It represents a strong argument in support of an Iranian provenance. Vessels with lobed rims are not recorded in tenth-century Egypt. As on the previous tray, the scrolls carrying ibex head profiles belong to the Iranian repertoire. Hatching in engraved parallel lines occurs here, too. By contrast, nothing about the tray invites speculation about the possibility of an Egyptian origin. In the light of current knowledge, there are no grounds for retaining it.



Fig. 5. Small tray (*ṭabaqcheh*) for a wine mug (*mashrabeḥ*). Iran, tenth century CE. San Marco Basilica, Venice, inv. 126. After Melikian-Chirvani, ed., *The World of the Fatimids*.

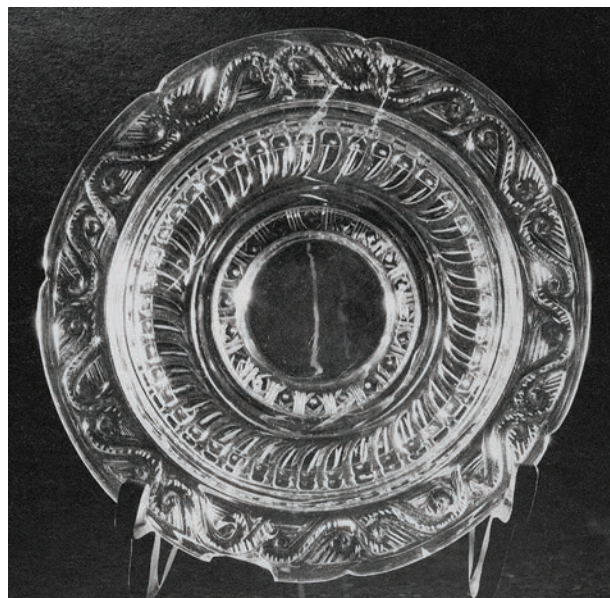


Fig. 6. Small tray (*ṭabaqcheh*) for a wine mug (*mashrabeḥ*). Iran, tenth–eleventh century CE. San Marco Basilica, inv. 102. After Curatola, ed., *Eredita dell' Islam*.

The Khorasani Toiletry Flask in The al-Sabah Collection

Some toiletry vessels were also made of rock crystal. Such was probably the destination of a hexagonal kohl flask in The al-Sabah Collection (inv. LNS 499 HS), 5.95 cm high. It associates formalized motifs of vegetal origin with elementary linear geometrical motifs (fig. 7).¹²⁶ The Swedish scholar Carl Johann Lamm attributed it to Iraq in 1930.¹²⁷ When illustrated in a book by Ernst Kühnel intended for collectors, dealers, and curators and written in the manner of a commercial catalogue just listing items with labels flatly stating period and origin without further discussion, the flask was given a “Fatimid Egypt” label.¹²⁸ In 2010, Anna Contadini reverted to Iraq, suggesting “Basra (?), ninth–tenth century.”¹²⁹ Again, no attempt was made to back up the assertion.

The profile of the shape, which has not been commented upon by previous writers, comes close to that of some miniature glass bottles excavated at Neyshābūr. One, recovered from Tapeh Madraseh in 1949, is preserved in the Metropolitan Museum of Art (inv. 40.170.72),¹³⁰ and another, also from Tapeh Madraseh, is in the Mūze-ye Mellī-e Īrān.¹³¹ Comparison with the

latter suggests that the ex-De Béhague, now Al-Sabah, small flask is missing almost half its neck. A third miniature bottle dug up “near Tapeh Madraseh” as Jens Kröger put it, quoting the museum records, is remarkably close.¹³² If the overhanging mouth is excluded, it precisely matches the profile of the ex-De Béhague rock crystal flask. The profile of a fourth miniature bottle from the Sabz-Pūshān site¹³³ also closely compares with the ex-De Béhague flask. It has the same, almost imperceptibly incurving neck, bearing in mind that the neck of the ex-De Béhague bottle was broken off.

The carved patterns made from motifs all found in the Iranian repertoire, likewise support an attribution to Iran. They include the ibex head profile stylized into abstraction. The carefully incised lines used as a shading device are matched on Iranian glassware. A glass bowl reportedly from Neyshābūr acquired by The al-Sabah Collection¹³⁴ provides an example of such shading precisely in the same motif, the stylized ibex head profile. A fragment from a glass vessel excavated on the Tapeh Madraseh site preserved in the Metropolitan Museum of Art offers a second example, if not quite as clear.¹³⁵

The motif resembling an ace-of-spades made



Fig. 7. Toiletry flask, probably Iran, tenth–eleventh century CE. The al-Sabah Collection, Dar al-Athar al-Islamiyya, Kuwait. Photo: Melikian-Chirvani.



Fig. 8. Bottle of octagonal section with Spanish gilded silver mounts, previously Hever Castle Collection. The al-Sabah Collection, Iran, tenth–eleventh century CE. After Curatola, ed., *Art from the Islamic Civilization*. Photo: Melikian-Chirvani.

from three-lobed sections of split palmettes occurs on Iranian coinage, metalwork, glass, and pottery.¹³⁶

Below, the two wings stuck in the Sasanian crown as conceived in Islamic times are carved with their tips slightly curling up as they do for instance on a coin issued by the Arab governor Salm ibn Ziyād in Marv in 67/28 July 686–17 July 687.¹³⁷ They look like stylised ibex head profiles. The ambiguity is deliberate. Ambivalent motifs in Iranian visual art are the equivalent of puns on homonyms in Persian poetry. Just as Khāqānī and others played in the same couplet on *rekāb*, the eight-lobed wine boat, and *rekāb*, the Arabic loanword for stirrup, so did the designer of the pattern engraved on the ex-De Béhague rock crystal flask in The al-Sabah Collection depict the Sasanian crown wings while making them resemble ibex head profiles.

Until proven otherwise, all the characteristics of the vessel point to Iran, most probably to the vast eastern province of Khorasan as its provenance.

A Khorasani Rock Crystal Kohl Flask in Spain

Another Khorasani rock crystal vessel has been in the West for centuries. The tall flask of octagonal section with Spanish gilded silver mounts was also attributed to Fatimid Egypt when sold at auction as part of the Hever Castle Collection on 6 May 1983 (fig. 8).¹³⁸ The attribution was retained by Ghada H. Qaddumi and Manuel Keene when the rock crystal flask was included in an exhibition of miscellaneous objects curated by Esin Atıl.¹³⁹ The entry, which only stated “Egypt ninth–tenth century,” provided no arguments to support the claim. It noted the presence of “an intricate Arabic inscription written in Kufic and rendered in relief, bestowing “blessing and felicity to the owner,” from which no conclusion was drawn.

It is possible to be more precise. The “inscription” is an invocation (*du‘ā’*) calling for God’s favors upon the owner worded according to a

common formulation on Iranian objects. It has not been recorded on published vessels of proven Egyptian origin:

بركة و يمن لصاحبه

Blessing and favorable auspices to its owner

The Kufic script has a pleated *kāf* (letter K) in *baraka*, “blessing,” and triangular apices to letter extremities that are typically Khorasani. The strict geometrical handling of the octagonal container rising from its narrow base at an angle of about 45 degrees is also characteristic of Khorasan as a comparison with some small vessels dug up in the modern state of Afghanistan (figs. 51, 52 below) shows.

When exhibited in Milan in 2010, the flask with Spanish mounts was duly entered as a “bottle, east Iranian world, ca. 10th c.”¹⁴⁰ without specifying the reasons for the revised label, which the catalogue format did not allow. That is now fully established.

A British Museum Rock Crystal Beaker from Northern Iran

A very different style is represented by a piece acquired in 1954 by the British Museum. According to the vendor, the beaker with a truncated conical body was dug up and acquired in Qazvīn, the large city to the northwest of Tehran (fig. 9).¹⁴¹

The sharp, crisp shape could be that of a metal vessel. This need not be interpreted as an intended “imitation” of metalwork, a process for which clear evidence is rare in Iranian art. What is obvious about the beaker is a love of geometrical volumes with sharply marked divisions emphasized by structural features. The rim at the top is a grooved rib. A projecting ridge sloping at a very low angle up to the truncated conical body separates it from the strongly waisted stem. Fine hatching is engraved on the edges of the addorsed scrolls diverging into very slender palmettes that are very large and bold. This type of hatching is seen on other Iranian rock crystal pieces, figures included.

An Iranian Rock Crystal Decanter (Şorāhī) in Halberstadt

A decanter in the treasury of Halberstadt Cathedral (fig. 10) ascribed by Jens Kröger to “Fatimid Egypt, tenth to first half of the eleventh century”¹⁴² offers some analogy with the latter in the handling of form. The different components of the vessel are sharply separated from each other. The body with convex sides which looks like a sphere chopped off at the top and bottom supports two disks of decreasing size, the lower one very slightly overhanging the convex sides. Beading to the edges of the two disks is simulated by close notches, enhancing the metallic appearance of the rock crystal decanter. Two small disks, again of decreasing size, achieve the same crisp effect at the base of the tall neck. Two superimposed disks with simulated beading to the edges are repeated in reverse order on the stem which has a profile closely resembling that of the rock crystal beaker from Qazvīn in the British Museum.

The pattern carved in low relief is entirely drawn from the Iranian repertoire. Hatching on the edges of the scrolls achieves a shading effect as it does on the British Museum beaker from Iran. Every detail thus points to an Iranian provenance for the Halberstadt rock crystal vessel made in the ninth or tenth century. The argument invoked by Jens Kröger to ascribe it to Fatimid Egypt is that “it is far superior to parallels in glass said to be from Iran.”¹⁴³

The German scholar does not specify which objects he has in mind when making a statement that owes more to subjective perception than to analysis, of which no attempt is made.

Even if such a difference in quality between the Halberstadt decanter and glass vessels from Iran were to be admitted, it would not be of much help in demonstrating the Egyptian origin of the Halberstadt piece. A vessel made from rock crystal, a much admired and expensive material used for kings, could be expected to have been made by one of the great masters of the day. In glass, a common material used at various levels of society, a wider range of the quality achieved by the makers is naturally to be observed.

In fact, the remark that there are Iranian glass parallels to the Halberstadt decanter can be turned around. It provides an additional argument in support of its Iranian provenance.

The Fermo Cathedral Fragmentary Ewer

A fragmentary vessel in the treasury of the Fermo cathedral, which has been ascribed to Fatimid Egypt until now, must be similarly reconsidered (fig. 11).¹⁴⁴

The incomplete piece lacks the top section and the handle. Comparison with a bronze bull-headed ewer in the Chicago Art Institute¹⁴⁵ suggests that it might originally have been the type of vessel called in Persian *gāv-e bādeh* ("wine bull") or simply *gāv* ("bull").

The profile of the surviving part of the body now shorn of the top section, perhaps a bull's head, precisely matches the profile of the corresponding part in the Chicago bronze wine bull. The epigraphic border carved on the rock crystal piece in Fermo is placed at the top of the remaining body, matching the emplacement of the epigraphic border on the Chicago bronze bull-headed ewer. It spells out an invocation (*du'ā'*) calling for God's graces upon a king who is hailed as a *Sayyed*, i.e., a descendant of the Prophet. Only noted in romanized characters by Avinoam Shalem whose reading calls for a slight emendation,¹⁴⁶ the invocation may thus be restituted in the original Arabic:

بركة و سرور للسيد الملك المنصور

Baraka wa surūr li'l-Sayyed al-Malik al-Manṣūr
Blessing and joy for the *Sayyed* al-Malik al-Manṣūr

The *du'ā'* in prose with an inner rhyme in *-ūr* is worded in *saj'* ("rhyming prose"), a rare occurrence in invocations of the early Islamic period. This became fairly common by the mid-thirteenth century. The peculiar *wāw* for the vowel *ū* in *surūr* deserves to be noted.

The wording of this inscription is a strong argument against an attribution to Fatimid Egypt: the Fatimid caliphs did not use the title *Malik*, "King," in their protocol.

Indeed, the pattern displays details that agree with an attribution to Iran. The formalized motif with scrolls carrying three lobed palmettes and bunches of grapes that identify it as a vine tree finds its closest equivalent on a famous small tray first published in 1961 when it formed part of the collection of the Iranian architect Mohsen Foroughi.¹⁴⁷ The tray, which ranks among the greatest masterpieces of ceramic vessels from Neyshābūr, is datable to the late tenth or early

eleventh century.

The two birds confronted on either side of the formalized vine tree are parrots. Here again, a parallel for confronted parrots is provided in Iranian art by a large hemispherical basin of the same period in The Iran-Zamin Collection.¹⁴⁸

Parrots in Iranian thinking are symbols of esoteric discourse.¹⁴⁹ Their presence on a vessel that is a wine ewer as indicated by the vine tree suggests that it was destined for the *bazm-e khāṣṣ*, "the private banquet" of the king, often loaded with esoteric symbolism.

A closer study of the Fermo fragmentary ewer with complete photographic coverage of the inscription and of all the motifs of the pattern, figural and formal, is required before a definitive conclusion can be safely advanced regarding its provenance. At this stage, Fatimid Egypt can be ruled out, leaving Iran as the more plausible proposition.

A Rock Crystal Double Inkwell

Transparency makes rock crystal the perfect material for a scribe's double inkwell, allowing inks of different colors, for instance black and red or black and gold used together in some Qur'an manuscripts,¹⁵⁰ to be instantly identified. The semi-precious stone would have been appropriate for a ruler or a vizier's "State Inkwell (*davāt-e dowlat*)" displayed on formal occasions.

Such an inkwell was acquired in the art market for the Aga Khan Museum Collection before the opening of the museum (fig. 12). Minor dents, perhaps caused in part by rough cleaning and rusty brown traces are telling traces of its recovery from underground. When displayed in public for the first time in the Louvre 2007 exhibition of masterpieces from the Aga Khan Museum, it was attributed to "Egypt, tenth–eleventh century."¹⁵¹ No attempt was made to justify the labelling which was maintained in subsequent shows.¹⁵²

The model of rectangular shape, 9.3 cm long, has the shape and proportions of Khorasani inkwells in stucco (*gach*). The carved pattern is characteristic of Khorasani design in its symmetry and rhythm, as well as in the detail of ornament. The three-lobed palmette with the uppermost lobe handled as a crook and the median lobe reduced to a triangle is typical. Nothing about the object gives reason to consider the possibility of

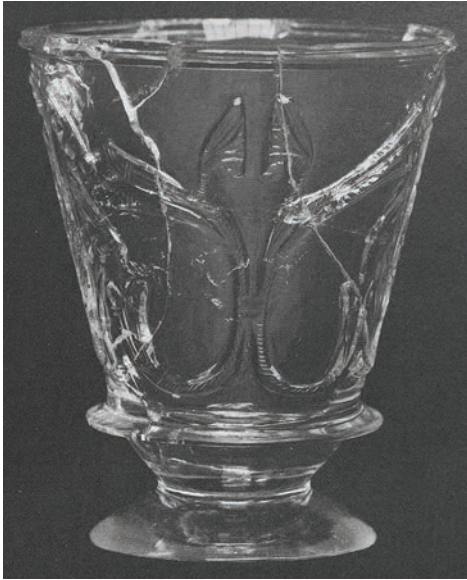


Fig. 9. A beaker (*jām/qadaḥ*) acquired from a Qazvīn vendor. Northwestern Iran, ninth–tenth century CE. The British Museum, inv. 1954.1013.1. After Hahn and Shalem, eds., *Seeking Transparency*, p. 110 fig. 3.



Fig. 10. The Halberstadt Cathedral decanter (*ṣorāḥī*), Iran, Khorasan, tenth century CE. H. 17 cm. Halberstadt Cathedral Treasury inv. nr. 49. After Hahn and Shalem, eds., *Seeking Transparency*, pl. 1 p. 257.



Fig. 11. The Fermo Cathedral fragmentary ewer, perhaps a wine bull (*gāv-e bādeḥ*) missing bull's head. H. 16.7 cm. Iran, tenth century CE. After Hahn and Shalem, eds., *Seeking Transparency*, pl. 2 p. 258.



Fig. 12. Double inkwell for inks of different colors, such as black and red or black and gold. L. 9.3 cm. Iran, tenth century CE. The Aga Khan Museum, Toronto, inv. 00653. After Akbarinia, Junod, and Merchant, eds., *The Path of Princes*.

a provenance from Fatimid Egypt, which can be safely rejected. The inkwell was made in Khorasan, probably in the tenth century.

Some Rock Crystal Chessmen from Khorasan

Similar revisions are called for in the labelling of rock crystal chessmen that have also been in the West for centuries. Long credited in the past to Fatimid Egypt, they share the same motifs as some of the vessels examined earlier. In all likelihood, they, too, originated in Khorasan around the late tenth or the eleventh century.

Three chessmen forming part of one set which had previously been attributed to Fatimid Egypt have already been reassigned to the East Iranian world by Anna Contadini in the 2010 exhibition catalogue of art treasures from Kuwait.¹⁵³ As elsewhere, the catalogue format did not allow room to put forward arguments in support of provenance or dating.

The patterns definitely point to an Iranian provenance. In six of the panels carved on the *shāh* (king, inv. LNS 1 HS a, fig. 13), four at the back and two in front, three-lobed sections of a split palmette paired back-to-back make up a motif common in Iranian art of the tenth and eleventh centuries. The short stalks supporting them diverge and curl up to join at the tip, thus achieving a frame that resembles an ace-of-spades in Western playing cards. Such a motif occurs on glass and metal wares in tenth-century Khorasan.¹⁵⁴ On the two *beydaq* (the Arabized form of Pahlavi *piyādag*, “foot soldier”), the back is carved with four panels which enclose a Khorasani type fleur-de-lis supported by two diverging stalks.

Three other chessmen numbered HS d, e, and g, which were oddly entered in the 2010 catalogue as “Iraq, probably Basra,” with the date “ca. ninth century,” likewise display typical motifs found in the Iranian repertoire.

The *faras* (horse, inv. LNS 1 HS h, fig. 14), which is the knight in English chess terminology, is carved with ibex head profiles stylized into abstraction in the Khorasani manner. A characteristic detail is the triangle with curving sides that is separated from the head of the ibex profile by deep grooves. It is identical to the triangle within the ibex head profiles of various Khorasani bronze and glass wares. A similar motif appears in the

same emplacement on the *fil/pīl* (“elephant”), (the bishop in English terminology).¹⁵⁵

The *rukḥ* (castle/rook, inv. LNS 1 HS g, fig. 15) is also carved with Khorasani motifs. Clues specifically pointing to Iraq, the provenance suggested in the 2010 catalogue, are lacking. The same remarks apply to the two *baydaq*s (pawns, LNS 1 HS i, fig. 16). The presence of motifs that are common in Khorasan makes it likely that The al-Sabah rock crystal chess pieces all originated in the East Iranian province.

The Al-Thani Chessman

The same conclusion may be drawn from the motifs carved on the magnificent piece previously in the Rothschild Collection and now in The Al-Thani Collection.¹⁵⁶

The rock crystal piece (inv. nr. BELC 936, fig. 17) has the same architectural design as the al-Sabah king. The arched niche is carved on the back with two interlacing stalks carrying three-lobed palmettes at the top and bottom that are typically Khorasani (fig. 18). So is the palmette which tops the central vertical stalk, with its outer outline resembling an ace-of-spades (fig. 17). On each vertical border on the sides of the niche, two confronted ibex head profiles are lodged in the space left between the slanting rods curling down at one end and up at the other, and the edge of the border (fig. 19). They are reduced by stylization into abstract motifs enclosing a typical triangle in the central area. On the top of the niche (fig. 20), the ibex profiles are seen imbricated, confronted, and back-to-back. The Al-Thani royal chessman, a *shah*, is undoubtedly a Khorasani piece from one of the major artistic centers. Whether Neyshābūr, Herat, or Balkh is impossible to tell for now.

On Chess Pieces from Central and Eastern Khorasan

A number of chess and other gaming pieces known to have come out of central and eastern Khorasan areas within the borders of the modern state of Afghanistan reveal a greater variety of styles. That confirms the existence of a solidly established tradition of working rock crystal.

Some miniature representations of a domed



Fig. 13. Chess piece, a *shāh* "king." H. 6.8 cm. Iran, ninth-tenth century CE. Formerly in the Church of Ager, Catalonia, Spain, later The Comtesse de Béhague Collection. The al-Sabah Collection, inv. LNS 1 HS a. The raised ibex head profile reduced to an abstract palmette with the typical Khorasani triangle in the center is one of the features that establish its Khorasani provenance.



Fig. 15. Chess piece, a *rukḥ*, "chariot" (tower/castle). H. 4.2 cm. Iran, tenth century CE. Formerly in the church of Ager, Catalonia, Spain, later The Comtesse de Béhague Collection. The al-Sabah Collection, inv. LNS 1 HS g. The ibex head profile stylized into a palmette is visible at the base of the piece.



Fig. 14. Chess piece, a *faras* "horse" (knight). H. 3.4 cm. Iran, ninth-tenth century CE. Formerly in the church of Ager, Catalonia, Spain, later The Comtesse de Béhague Collection. The al-Sabah Collection, inv. 1HS h. The characteristic ibex head profile stylized into an abstract palmette displays at the center the triangle with curving sides common in the Khorasani rendition of the motif in rock crystal artefacts.



Fig. 16. Chess piece, a *baydaq*, "footman" (pawn). H. 2.6 cm. Iran, tenth century CE. Formerly in the Church of Ager, Catalonia, Spain, later the Comtesse de Béhague Collection. The al-Sabah Collection, LNS 1 HS i. Note two ibex head profiles stylized into a palmette, their muzzles pointed downward, the upper section. Copyright The al-Sabah Collection, Dar-al-Athar al-Islamiyyah, Kuwait.



Fig. 17. Chess piece, a *shāh*, "king." H. 6.1 cm. Iran, tenth century CE. Formerly The Rothschild Collection, Paris. The Al-Thani Collection. Inv. BELC 936. The piece, structurally similar to the al-Sabah and the Doha Museum pieces, is carved from an equally transparent and brilliant rock crystal. The interlacing scrolls carved on the back carry ibex head profiles.



Fig. 19. Side view of the Al-Thani chess piece. The vertical rectangular borders on each side are carved with symmetrical scrolls terminated at each extremity with ibex head profiles. These are only faintly recognizable. The triangle in sunken relief remains visible in the left hand profile.



Fig. 18. Detail of the back of the Al-Thani chess piece in pl. 17. The ibex profiles are stylized into abstract palmettes that no longer allow them to be recognized as figural except for the crozier-like horn.



Fig. 20. In the narrow band carved on the rounded top of the niche of the Al-Thani *shāh* ("king" in the chess game), two ibex head profiles with their crozier-like horns tangent are carved in sunken relief. They dovetail with inverted identical ibex head profiles. The horns are emphasized in typical Khorasani manner.



Fig. 21. A crisply carved chess piece, 4.35 cm high, in The al-Sabah Collection, was dug up in Herat, the vendor stated (LNS 294 HS). In the shape of a hexagonal monument topped by a dome, it might be a castle (*rokh* in Persian). The style suggests a ninth century CE date. Photo: Melikian-Chirvani.

hexagonal monument handled in geometricized fashion are said to have been recovered in Herat and have been acquired by The al-Sabah Collection. One is a crisply carved chess piece, 4.35 cm high, inventory LNS 294 HS (fig. 21). Probably dating from the ninth or tenth century, it might be a castle, in Persian *rokh*. A character riding a steed (fig. 22), 4.15 cm high, which may date from the same period, is presumably a knight, in Persian *faras*, an Arabic loanword synonymous with Persian *savār*. A closely related variant (fig. 23) of the piece in fig. 21 is preserved in The al-Sabah Collection, inv. LNS 294 HS c. Also dug up in Herat, it displays the same type of geometrical ribbing.

Other gaming pieces have turned up at Qal'a-i Naw in the district of Herat.

A smaller version of the king (*shāh*) in The al-Sabah Collection, inv. LNS 573 HS a (fig. 24 seen sideways, and fig. 25 seen full front, 3.37 cm) is among the Qal'a-i Naw examples. The deeply carved fillets and the geometrical human mask wearing a crown visible when the piece is seen full front suggest a date in the tenth or eleventh century. Another piece in The al-Sabah Collection, inv. LNS 573 HS b, has a geometricized hu-



Fig. 22. The figure of a character on horseback, 4.15 cm high, in The al-Sabah Collection (LNS 643 HS), probably also dates from the ninth or tenth century CE. The subject represented would appear to designate it as a knight (*faras* or *savār* in Persian). Likewise dug up in Herat, it is handled in a geometrical style in favor at the time. Photo: Melikian-Chirvani.



Fig. 23. A variant of the chess piece in fig. 21, this chess piece in The al-Sabah Collection (LNS 294 HS c) also came to light in Herat, as reported by the vendor. The same type of geometrical ribbing underlines its connection with the castle in fig. 21. Photo: Melikian-Chirvani.

man mask (fig. 26), which apparently wears stoles derived from the Sasanian royal stoles reduced to geometrical trapezes (fig. 27).

It might be earlier, possibly dating from the ninth or tenth century. Whether a chessman which seems likely or another kind of gaming piece cannot be determined for sure at present, at least not by this writer.

A piece that does not lend itself to easy “reading” was dug up at Qal‘a-i Naw in the province of Herat. It may be engraved with a winged quadruped, LNS 573 HS c (fig. 28). Handled in a strictly



Fig. 24. Chess pieces reported to have been dug up at Qal‘a-i Naw in the district of Fariyāb in the province of Herat display the same stylistic characteristics as those said to have come from Herat. This one in The al-Sabah Collection, 3.37 cm high (LNS 573 HS a), offers a smaller version of the *shāh* once owned by the Comtesse de Béhague, now also in The al-Sabah Collection. Photo: Melikian-Chirvani.



Fig. 25. The frontal view of the chess piece from The al-Sabah Collection (LNS 573 HSa) seen sideways in fig. 24 shows the deeply carved fillets and the geometricized human mask topped by a crown. This suggests a date in the tenth or eleventh century CE. Photo: Melikian-Chirvani.



Figs. 26–27. A chess piece in The al-Sabah Collection (LNS 573 HS b) is similarly said to have been dug up in Qal‘a-i Naw. The human mask is handled in the same geometricized fashion. Two stoles derived from the royal stoles of the Sasanian crown are reduced to geometrical trapezes.

geometrical style, it is probably contemporary with the grey stone figures of the ninth or tenth century from Neyshābūr. At the back end (fig. 29), a human mask wears the two-horned cap (*kolāh-e do shākh*) of the Ghaznavid rulers, courtiers, and high-level officials mentioned by Beyhaqī in his history of the first three rulers of the dynasty. When turned to the left, the piece can be seen to be carved with the profile of a horse ambling from east to west, which is done in a more fluid style. Assessing the exact character of the gaming piece (chess? some other game?) is equally problematic.

It is no easier to reach a definite conclusion with regard to five al-Sabah pieces carved with lotus leaves on their vertical bodies (LNS 383 HS a to LNS 383 HS e). They can be assumed to date from the same period as some of the gaming pieces mentioned above, that is from the tenth or eleventh century, in the absence of any specific clues. The example in fig. 30, 3.6 cm high, (LNS 383 HS a) shows the quality of the carving. The five specimens that were found together invite speculation that they may have been chess pawns, in Persian *piyādeh*, or *beydaq*, the Arabized form of the Pahlavi noun **piyādag*.

A vertical piece, 4.5 cm high, topped halfway up by a pointed dome carved with lotus leaves is handled in geometrical style, LNS 575 HS (fig. 31). If a chess piece, then it might perhaps be a queen (*farzīn*). The geometricized lotus makes a date in the tenth or eleventh century conceivable.

Clues are lacking to advance any hypothesis about the exact character of another gaming piece bought from an Afghan dealer by The al-Sabah Collection (inv. LNS 165 HS [fig. 32]). Very finely carved, the piece which is 3.8 cm high, is of great interest despite the uncertainty regarding its precise nature and the type of game in which it might have been used. The carved palmettes find parallels in Khorasani metalwork dating from the ninth or tenth century. The typical motif of two half-palmettes, confronted, and pointed down in an overall triangular composition can, for example, be seen on a glass bottle in The al-Sabah Collection [inv. LNS 114 G].

The Al-Thani Rock Crystal Lion

Alongside rock crystal vessels, Iranian masters carved some rock crystal animal figures. A highly stylized crouching lion is preserved in the Al-



Fig. 28. A chess piece reportedly dug up in Qal'a-i Naw was acquired by The al-Sabah Collection (LNS 573 HS c) with the preceding two pieces. Handled in a strictly geometrical style, it does not lend itself to easy interpretation. It is probably contemporary with the grey stone figures excavated in Neyshābūr in western Khorasan. Photo: Melikian-Chirvani.

Thani Collection, inv. BELC 008 (fig. 33 and fig. 34). The piece which appeared out of the blue at a London auction in 2011 and may have come out of Afghanistan like other pieces (see below) was routinely catalogued as "Fatimid."¹⁵⁷ Its destination remains open to speculation. The underside would suggest that the object was meant to rest on a flat surface. Until a definite clue is provided by comparative material or by a written source, there is little point about venturing guesses about its function.

By contrast, the style and period can be broadly characterized. The size and the tendency to reduce the body to a geometrical volume, together with the carved geometricized palmettes (fig. 35) call to mind the animal figures carved in grey stone in Neyshābūr during the tenth century, although it does not quite achieve the same extremely schematic rendition.¹⁵⁸ This may in part be due to the properties of quartz of which rock crystal is a variety. It lends itself more easily to devising smooth transitions than the grey stone of Neyshābūr which is prone to cleave with sharp angles. The geometrical figures carved on the back of the lion are typical of the Khorasani taste for



Fig. 29. The back end of the chess piece reportedly dug up at Qal'a-i Naw, which was acquired by The al-Sabah Collection (LNS 573 HS c), is carved with a human mask. It wears the two-horned cap (*kolāh-e do shākh*) of the Ghaznavid rulers and high officials mentioned by the eleventh-century historian Beyhaqī. Photo: Melikian-Chirvani.



Fig. 31. A vertical game piece 4.5 cm high from Qal'a-i Naw in The al-Sabah Collection (LNS 575 HS) is topped halfway up by a pointed dome carved with lotus petals handled in geometrical fashion. These allow a broad dating in the tenth or eleventh century CE. If a chess piece, then it might be a queen (in Persian *farzīn*). Photo: Melikian-Chirvani.



Fig. 30. Five pieces from Qal'a-i Naw acquired by The al-Sabah Collection (LNS 383 HS a-e) may be assumed to date from the same broad period of the tenth to the eleventh century CE. An example 3.6 cm high (LNS 383 HS a) illustrates the high-quality carving. Found together, the five pieces may be tentatively assumed to be the pawns of a chess set (in Persian *piyādeh* or *beydaq*). The al-Sabah Collection, Dar-al-Athar al-Islamiyyah, Kuwait.



Fig. 32. Another gaming piece, 3.8 cm high, acquired by The al-Sabah Collection from an Afghan vendor (LNS 165 HS) is equally difficult to identify. Very finely carved, the piece has features that find parallels in Khorasani metalwork. The motif of two half sections of a split palmette pointed downwards in a triangular composition also occurs on Khorasani glass. Photo: Melikian-Chirvani.

geometry in form and patterns (fig. 36). A tubular conduit, 4.5 cm long, was carefully bored through the chest (fig. 37) suggesting that the piece may have been a furniture fitting, such as a protome of a royal seat or of a palanquin. The royal symbolism of the lion together with the semi-precious stone invites speculation that it might have been destined for a ruler's palace.

Bīrūnī provides another argument for holding a royal destination to be a valid proposition. The Iranian polymath notes in the *Encyclopaedia of Primary Substances* (*Kitāb Jamāhir fī'l-Jawāhir*, p. 130) that "the two brothers from Rey Ḥasan and Ḥusayn" reported buying for Sultan Mas'ūd I "a rectangular ruby in the form of a lion (*yāqūt aḥmar mustaqīl 'ala ṣūrat asad*)" for seven thousand Neyshābūrī dīnārs. The huge sum, which was paid during the Sultan's stay in Rey, tells us that lion figures made of precious stones were keenly sought after by Ghaznavid rulers. The Al Thani lion is carved from high-quality rock crystal as might be expected of a royal piece. Whether intended for a Ghaznavid Sultan or the ruler from another dynasty is impossible to tell in the absence of specific clues.

The style of the rock crystal lion is consistent with a date around the second half of the tenth century or the first half of the eleventh century. The pattern carved on the Al-Thani lion is taken from the same Khorasani repertoire represented on the chess pieces examined in these pages. On the animal's flank seen when it is turned to the right, four ibex head profiles are carried by scrolls (fig. 33). The same profiles are not quite as clearly outlined when the animal is turned to the left (fig. 34). The head is handled in a thoroughly geometricized cartoon style that bears comparison with the best Neyshābūrī manner (fig. 37). The triangular nose is subdivided into a big lozenge flanked in the lower area by two triangles meant to be isosceles. The smooth rounded volume of the head fits the assumption of a furniture fitting such as a protome for the arms of a throne or the rods of a palanquin which would have allowed hands to grip it painlessly.

The Rock Crystal Geometrical Vessels of Tenth–Eleventh Century Khorasan

The existence of a Khorasan school producing rock crystal vessels with geometrical shapes

which has been established on the basis of comparative evidence is further borne out by a series of small pieces that came to light over the years in eastern Khorasan and were acquired from Afghan dealers by The al-Sabah Collection.

While the identity of a vendor is by no means sufficient proof of the origins of his wares, it would be unreasonable to ignore the information volunteered by dealers.

The stylistic consistency of a number of small kohl flasks (*sormehdān*) with closely related geometrical shapes obtained at the hands of several Afghan dealers makes it obvious that they represent a regional style originating in the eastern Khorasani area now part of Afghanistan. Their connection with the geometrical bronzes of the tenth–eleventh century Khorasani school leaves no room for doubt regarding their Khorasani provenance.

Foremost among the miniature rock crystal vessels is a tiny kohl flask 3.72 cm high (inv. LNS 119 HS); apparently a kohl flask (*sormehdān*) depends entirely on the geometry of form for aesthetic effect (fig. 38).¹⁵⁹ The Frankfurt-based Iranian dealer who sold it to The al-Sabah Collection mentioned that it came from Neyshābūr.

The squat body with a broad base from which the sides rise at about 45 degrees before going up vertically is poised on a narrow stand with short stumpy legs. The edges at the junction of vertical facets are subtly rounded, allowing the tiny vessel to be picked up without discomfort. As is the case with bronze ewers of the ninth and tenth centuries, a broad, compressed moulding runs at the base of the neck which appears to have been shortened and ground down to camouflage an uneven break. The narrow shoulder, very slightly convex, slopes up to the moulding at a very low angle. Despite its seeming simplicity, the form has no exact match in rock crystal or any other material.

Another kohl flask, 2.82 cm high (inv. LNS 371 HS), has a chamfered body (fig. 39).¹⁶⁰ It displays the same relish in the geometry of form and adds two-dimensional elementary geometrical figures in very low relief with edges under 0.1 cm high. The shape of the vessel, which was included in a London auction and entered The al-Sabah Collection in 1998, is fully preserved. It has suffered blunting the edge of the shoulder. The hexagonal body, which continues a pre-Islamic tradition across the Middle East, provides a link with

bronze vessels from ninth–tenth century Khorasan such as a rose-water sprinkler (*golābzān*) in The Iran-Zamin Collection.¹⁶¹ The flat base from which the sides rise at about 45 degrees before breaking up into vertical facets is typical of the group. This detail appears to be specific to rock crystal vessels. So are the deep grooves cut in parallel lines at a 45-degree angle across some facets in alternation with shorter grooves across intervening facets. On the neck, a deep groove runs around below the rim which has vertical, lightly convex sides slanting slightly inwards up to the broad flat lip. Altogether, the flask has a strong sculptural feel in its abstract style. It is close enough to the Neyshābūr piece to be assigned the same provenance.

A variant of this type, inv. LNS 490 HS, 3.5 cm high, was obtained from an Afghan dealer in Peshawar, who stated that it came from Herat.¹⁶² It confirms the favor enjoyed by this style in Khorasan (fig. 40). Here, the hexagonal sides rise from a narrower base to support the vertical facets of the chamfered body. Ornament is confined to deep vertical grooves that give a thrust to the slenderer body topped by a taller neck. Two deep horizontal grooves divide the neck into three sections. The lower section lightly flares while the median and top sections, the latter slightly recessed, have smooth convex sides. A monumental effect is achieved despite the very small size of the piece.

Contrasting with the economy of means achieved by the geometrical style in the rock crystal kohl flasks acquired by The al-Sabah Collection from Afghan dealers in Peshawar, other miniature vessels bought from the same sources are covered with motifs drawn from the Khorasani repertoire as represented in metalwork, stonework, and architectural stucco panels.

An hexagonal kohl flask in The al-Sabah Collection (inv. LNS 499 HS), 5.95 cm high, is also said to have been recovered from underground in Herat. It associates formalized motifs of vegetal origin with elementary linear geometrical motifs (fig. 41).¹⁶³ The body is poised on a broad base unevenly preserved, an average 0.3 cm high. The six vertical sides taper very slightly as they rise up to the recessed, low, angular shoulder also about 1 cm high. The shoulder slightly slopes up to the short flaring neck. The six vertical facets are handled like stucco panels carved on a monument. Strong mouldings along the edges emphasize the structural outline. In the rectangular space that is thus

circumscribed, panels within grooved rectangular frames each enclose a scroll carrying two sections of split palmettes. These panels come in clusters of two, diametrically opposed. The two intervening vertical facets, likewise diametrically opposed, are each carved with three vertical ribs. The central rib is cut across by narrow slanting ribs and the lateral ribs are cut across by angles. The giveaway detail that is typical of the Khorasani repertoire is the section of a split palmette with three lobes pressed against what resembles a bird profile with a sinuous point for a beak.

An hexagonal structure is retained in a small kohl flask 7.32 cm high and 3.56 cm wide, which entered The al-Sabah Collection in 1996, Inv. LNS 225 HS (fig. 42).¹⁶⁴ It is immediately apparent in the neck with a light flare. The six facets are separated from each other by narrow angular grooves. The neck rises above two strong circular ribs, which thus underline the contrast between its pure geometry and the rich sculptural display of abstract motifs on the body where they stand out in low relief. Motifs known in Persian as *peykānī*, after the arrowhead or *peykān* that they reproduce, occur on three facets alternating with flat kite-like motifs that have bevelled edges on the three intervening facets. Oval motifs in stronger relief project from the central area of the kite-like motifs. Both the *peykānī* and the oval motifs are seen on Khorasan bronzes of the tenth–eleventh century CE.

A bigger kohl flask, 8.98 cm high (inv. 335 HS),¹⁶⁵ of comparable proportions, but of circular section, was dug up at Qādis, a town near Qal‘a-i Naw in the Bādghīs province that historically served as the hinterland of Herat. It is important for the epigraphic border that occupies the larger part of the space on the cylindrical body (fig. 43). It is written in a plain Khorasani Kufic script with very large triangular tips to its letters. These tips are ultimately derived from bird heads of which they retain the movement. This is particularly clear in the *ṭā marbūṭā* at the end of *baraka*. The terse invocation calling for divine favors upon the owner is reduced to three words:

بركة و سرور

Blessing and merriment!

A strong circular moulding runs above the invocation, highlighting the space reserved for it and giving the cylindrical body an architectural feel.

The lid-like section at the top of the body, flush



Fig. 33. A lion-shaped fitting was presumably attached to a piece of furniture or a palanquin. The geometricized handling, while smoother owing to the nature of the medium and the requirements of comfortable handling, compares with the sculptural handling of grey stone animal figures from Neyshābūr. Eastern Khorasan, tenth–eleventh century CE. The Al-Thani Collection. Photo: Melikian-Chirvani.

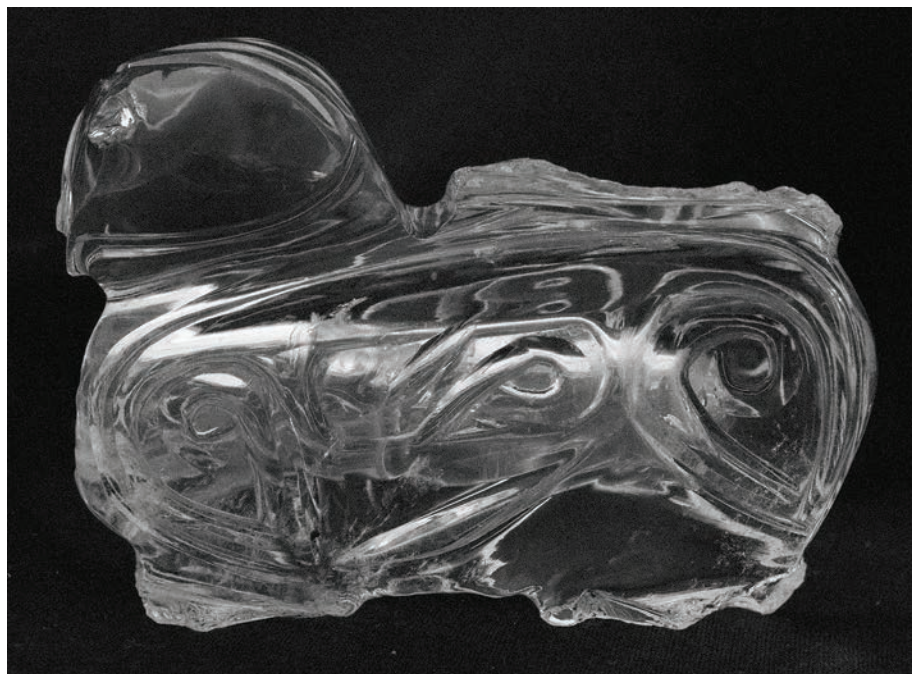


Fig. 34. The Al-Thani lion facing left. The slight variants in the carved detail may have been determined by the shape of the rock crystal piece available. Photo: Melikian-Chirvani.



Fig. 35. Detail of the Al-Thani lion-shaped furniture or palanquin fitting. The profile of an ibex head reduced to an abstract palmette is widely used in the Khorasani repertoire of the ninth–tenth century CE. It is inherited from distant antiquity, going as far back as Scythian art from the Pazyrik finds. Photo: Melikian-Chirvani.



Fig. 37. The head of the Al-Thani lion-shaped furniture or palanquin fitting seen full front. The circular opening was bored deep enough into the chest to accommodate a rod of circular section. The royal symbolism of the lion invites speculation that the piece might have been part of the possessions of some regional ruler claiming regal status. Photo: Melikian-Chirvani.



Fig. 36. The Al-Thani lion-shaped furniture or palanquin fitting seen three-quarters back. The geometrical style of the motifs carved on the back are consistent with the strong geometrizing trend in Khorasani artefacts in all media from the ninth to the eleventh century CE. Photo: Melikian-Chirvani.



Fig. 38. The kohl flask (?) (*sormehdān* in Persian) rests on two stumpy legs comparing with those of Khorasani grey stone vessels. The hexagonal shape with a light flare is typical of the Khorasani repertoire. The flat shoulder supporting a low tubular opening compares with the matching features of Khorasani *sormehdāns*. The al-Sabah Collection, Neyshābūr Khorasan, tenth–eleventh century CE. Photo: Melikian-Chirvani.



Fig. 40. The kohl flask (*sormehdān*) LNS 490 HS, 3.5 cm high, now in The al-Sabah Collection is said to have come to light in Herat. A variant of the piece nr. LNS 371 HS in fig. 39, it has a comparable hexagonal form. The ornament confined to vertical grooves gives an additional thrust to the shape.



39. Another kohl flask (?) in The al-Sabah Collection, (LNS 371 HS) displays the same love of geometrical forms. The elementary geometrical figures carved in low relief with edges less than 0.1 cm high share the same aesthetic trend. Sold at auction as Fatimid in 1998, it no doubt originated in the same eastern region of Khorasan as the kohl flask in fig. 38. Photo: Melikian-Chirvani.



Fig. 41. The kohl flask (*sormehdān*) LNS 499 HS, 5.95 cm high, in The al-Sabah Collection, is another example of the love of hexagonal volumes that Khorasani rock crystal carvers shared with Khorasani bronze makers in the ninth–tenth century CE. Strong mouldings along the edges emphasize the architecture of form. The al-Sabah Collection, Dar-al-Athar al-Islamiyyah, Kuwait.



Fig. 42. The kohl flask nr. LNS 225 HS in The al-Sabah Collection, 7.32 cm high, has yet again a hexagonal body. The six facets separated from each other by angular grooves are carved with motifs in low relief that are drawn from the Iranian repertoire. Arrowheads (*peykān*) alternate with kite-like motifs from which oval motifs project.

with its narrow lip, is carved with a chain, of which the seven angular, elongated links bend at an angle as they do on some Neyshābūr glazed earthenware vessels and on some carved stucco panels.¹⁶⁶ The large size of the links is proportionate to that of the lettering. This is in keeping with the monumentality achieved in the handling of the piece despite its small size. The geometrical character of the links is matched by the equally geometrical character of the staggered rows of imbricated triangles in low relief defined by zig-zag grooving on the moulding which supports the neck. The vigor and austerity of the piece would seem to point to a comparatively early date, probably not later than the tenth century CE. The lower half of the “lid” is designed as a dish with low vertical sides and a broad ring foot turned upside down that supports the suggested tenth-century date: the model finds parallels in eighth- to tenth-century glass, glazed pottery, and metalwork from Khorasan.¹⁶⁷

One rock crystal piece acquired by The al-



Fig. 43. The kohl flask LNS 335 HS, 8.98 cm high, acquired from an Afghan source by The al-Sabah Collection, is important for the epigraphic frieze in low relief that runs around the cylindrical body. The plain Kufic script with large triangular tips to its letters is typically Khorasani. It reproduces a terse prayer (*do‘ā*). *Baraka wa sorūr*, “blessing and joy,” are the divine favors wished upon the owner.

Sabah Collection in the Deccan, India, shows in every detail a close connection to metalwork from tenth- to eleventh-century Khorasan, inv. LNS 96 HS (fig. 44).¹⁶⁸

The object appears to be incomplete. The rim has been ground down to a flat even surface from which all irregularities have been filed away. In the process, some of the dotted circles that end the vertical bands of closely spaced dotted circles were cut through halfway up.

What is left of the volume matches the body profile of the bronze ewers signed by the Khorasani master Ahmad around the early eleventh century CE.¹⁶⁹ This does not include the sinuous profile at the very top of the body. Such refinement



Fig. 44. Acquired in the Deccan, India, an incomplete vessel in The al-Sabah Collection, inv. LNS 96 HS, which was broken at the neck and misses its top, might have been an ewer. The remaining body matches the profile of the eleventh-century bronze ewers signed by the master Aḥmad. The diamond repeat pattern, which continues a much earlier tradition, is seen on an unpublished small pre-Islamic bronze jug in The Iran-Zamin Collection.

would have been difficult, if at all possible, to obtain when carving rock crystal.

The details of the geometrical ornament carved on the sides are matched on the high tin bronze vessels of tenth–eleventh century Khorasan. The diamond repeat pattern carved with faultless regularity can also be seen on a much earlier small bronze bottle in The Iran-Zamin Collection.¹⁷⁰ The lozenges in low relief punctuated by four dotted circles which are inserted in the diamond repeat pattern display the same love of geometrical motifs as on bronze vessels. The upper part of the shape is chamfered into broad vertical facets. Nine vertical bands punched with chains of narrowly spaced dotted circles alternating with nine plain bands are again characteristic of the geo-

metrical high tin bronzes of Khorasan from the ninth to the eleventh century CE.

The variety of rock crystal vessel types and of their patterns, together with the differences in mastery which range from superb, as in the vessel that has just been compared with bronze specimens, to definitely crude, as in one of the small flasks (fig. 52), combine to demonstrate the existence of a well-entrenched tradition established over an entire region with numerous and diverse workshops.

Herat appears to have been one of its centers as might be expected. Some pieces are known to have been dug up in or near the city. It is not unreasonable to speculate that the superbly wrought incomplete vessel with a body similar to the body of the bronze ewers signed Aḥmad originated in that major Khorasani metropolis.

Different regions may have had specific styles. When a larger number of rock crystal vessels become known, it may be possible to characterize some of these. In the meantime, one can only note certain features. A kohl flask (*sormehdān*) from Gorgān on the southeast corner of the Caspian Sea next to western Khorasan is preserved in the Mūze-ye Mellī-e Iran (fig. 45).¹⁷¹ It has been known since 1959 when Kurt Erdmann reproduced it after seeing it at the exhibition of Iranian art held in Rome, but very little attention has been paid to it.¹⁷² Noticeable for the high quality of its execution, it relies solely for aesthetic effect on the geometrical handling of the three main volumes that make up its form. The central body, vigorously chamfered, is framed by powerful mouldings above and below. The flaring, funnel-like mouth, is similarly chamfered. It rests on a base with slanting sides that abruptly break into a spreading foot. Dating can only be hypothetical at this stage. It may be inferred from comparison with a rock crystal kohl flask in the British Museum also published by Kurt Erdmann (fig. 46).¹⁷³ The latter has a base with slanting sides that breaks into a spreading foot which is comparable. A carved palmette on the body would be consistent with a date around the tenth century, which hardly amounts to great precision. The kohl flask in the British Museum is clearly shown by its close connection to the Gorgān *sormehdān* to be an Iranian piece.

A third crystal kohl flask which also came out of Iran turned up at the 1985 Geneva auction of "Islamic Art" (fig. 47).¹⁷⁴ Highly stylized and



Fig. 45. A kohl flask (*sormehdān*) in the Müze-ye Melli-e Irān which came to light in Gorgān near the southeast corner of the Caspian Sea was on view in a Paris exhibition in 1954, but was not mentioned in the catalogue. Published by Kurt Erdmann in 1959, it displays the same love of geometrical form as some Khorasani kohl flasks.



Fig. 46. A kohl flask in the British Museum shares some features with the Gorgān piece preserved in Tehran. The base with slanting sides that break into a spreading foot is comparable. A carved palmette on the body would be consistent with a date in the tenth century. After Erdmann 1959.



Fig. 47. The kohl flask (*sormehdān*) which was sold at auction in Geneva in 1985 was reported to have come out of Iran. Structurally identical to the British Museum *sormehdān* in fig. 46, it is remarkable for its carved geometricized fleur-de-lis joined at the tip in vertical bands. The fleur-de-lis alternate with arrowhead motifs (*peykān*) projecting in low relief as they do on numerous Khorasani bronzes such as rose water sprinklers (*golābdān*), and mortars (*hāvan*), among others. After Sotheby's 1985.

marked by the trend toward geometricization, it was described in the catalogue entry as "an Abbasid rock crystal flask, ninth–tenth century, bevel cut in the form of a fish with mouth, gills, fins, tail and four pad feet . . . Eastern Iran or Central Asia." The fish form does not exactly leap to the eye. On each side of the main body of oval section, two rectangular panels enclose five lobed palmettes pointed toward each other. They are typical of the Iranian repertoire. In the narrow space left between the two rectangular panels, two flower

buds (*ghoncheh*) or arrowheads (*peykān*), to use the Persian terminology, stand out in low relief, their form emphasized by a framing rib.

Julian Raby recognized the east Iranian character of the vessel in an introductory paragraph and reproduced a related rock crystal flask in the Hermitage Museum, inv. no. CA 9993, in which the evocation of a fish is more easily recognizable. The British scholar, unaware of the existence of bronze flasks of similar size in ninth–tenth century Khorasan, toned down his own attribution to eastern Iran by cautiously concluding: "Only further research, however, will reveal whether they do indeed belong to Eastern rather than Egyptian manufacture."¹⁷⁵ That it is of Iranian manufacture is no longer in doubt.

An Iranian Rock Crystal Kohl Flask in the Victoria and Albert Museum

A kohl flask in the Victoria and Albert Museum (inv. M.78–1910) which was ascribed by Anna Contadini to Fatimid Egypt may be safely added to the lengthening list of Iranian rock crystal vessels (fig. 48).¹⁷⁶

It was fitted with metallic mounts in England sometime between about 1540 and 1550 according to the museum specialists in order to transform it into what Contadini described as "a casting bottle for pepper or spices." To the outsider it rather looks like a censer with its heavy chains allowing a priest to swing it and spread incense. There is strictly nothing that connects the rock crystal piece with the art of Fatimid Egypt.

The hexagonal body topped by a lightly flaring neck, also hexagonal, is typical of the geometrical forms favored during the eighth and ninth centuries CE by Iranian metalworkers and glassmakers.¹⁷⁷ The strong moulding circling the neck in the lower half is frequently seen in Iranian metalwork. A peculiar detail, unique to this piece, is the presence of four very large cavities gouged out of the body. This could be explained by the need to eliminate a flaw or an impurity while maintaining perfect symmetry.

The Victoria and Albert flask probably dating from the eighth or ninth century CE would seem to rank among the earliest rock crystal vessels from Islamic Iran. Its transparency and accomplished execution would have made it fit for a ruler's consort.



Fig. 48. A Victoria and Albert Museum (inv. M.78-1910) kohl flask previously ascribed to Fatimid Egypt was already in England between about 1540 and 1550 when it was fitted with metallic mounts. The hexagonal body reproduces a model seen in Iranian metalwork and glass of the eighth and ninth centuries. The flaring neck is typical. The base with slanting sides is concealed here by the mounts.

A kohl flask in a church at Gandersheim published by Kurt Erdmann (fig. 49) is structurally comparable to the piece from Gorgān in the Mūze-ye Mellī-e Irān, with some notable differences in the detail. The carved ornament is typically Khorasani. The characteristic ibex head profile reduced into an abstract palmette is prominent enough halfway up



Fig. 49. The kohl flask (*sormehdān*) preserved in a church at Gandersheim, Germany is structurally comparable to the piece from Gorgān in the Mūze-ye Mellī-e Irān. The carved ornament includes the typical Khorasani ibex head profile stylized into an abstract palmette. It is carried by divergent stalks at the top of the body. Halfway up the body, the same ibex head profiles seen upside down are carved with parallel grooves, a Khorasani design device. After Erdmann 1959.

the cylindrical body. Parallel grooves take the place of simply engraved hatching. A tenth century CE date seems likely.

So deeply embedded was rock crystal in the Iranian tradition that even crooks used the hardstone for their tricks. A couplet from the panegyric on the Vizier Abu'l-Moẓaffar Moḥammad-e Abu'l-Faṭḥ cited earlier echoes in passing, with light-hearted irony, the production of fake semi-precious stones such as turquoises and fake gems like rubies made by forgers from rock-crystal which was colored:

کس را گمان نبود که از گوهر بلور
پیروزه خوش آید و یاقوت آبدار

No one would believe that out of rock crystal
Nice turquoises and rubies of fine water can
emerge¹⁷⁸

* * *

The attribution to Iran of a few of the vessels that have been examined in these pages may come to be revised. Certainty is difficult to attain about hardstone artefacts when devoid of epigraphy and even if they do have inscriptions, these do not always yield ironclad proof of their provenance. Bearing these reservations in mind, the number of rock crystal vessels and other pieces that leave little doubt about their Iranian workmanship is now significant enough. It can be stated with certainty that rock crystal was highly prized in Iran. The testimony of Persian poetry yields conclusive evidence on the admiration that rock crystal objects inspired at the highest level of the social hierarchy. Indeed the fragments excavated at Takht-e Jamshīd ("Persepolis") prove that rock crystal pieces were made for royal use as early as the Achaemenid age.

It is worth noting that, by contrast, rock crystal does not seem to have been used in Arab lands until well after the appearance of Islam. Avinoam Shalem cited the Qur'anic verse 24:35 and reproduced the translation of the following words by N. J. Dawood:

الله نور السموات و الأرض مثل نوره كمشكاة فيها مصباح المصباح
في زجاجة الزجاج كأنها كوكب دري

God is the light of the heavens and the earth. His light may be compared to a niche that enshrines a light, the light within a crystal of star-like brilliance.¹⁷⁹

The problem with Shalem's chosen translation is that the Qur'an does not actually mention rock crystal. An English version closer to the text might read:

God is the light of the heavens and the earth. Comparing His light, it is like a niche in which there is a lamp, the lamp is in a glass piece, the glass piece is as if it were a glittering star.

In a footnote, Shalem adds: "Though the term *zujāja* (زجاجة) is translated by Palmer as glass, I chose Dawood's translation: N. J. Dawood, *The Koran* (Harmondsworth Penguin Classics, 1990)." The scholar does not attempt to make a case for his preference. The Arabic *zujāja* means glass, not rock crystal. Zamakshsharī says so in his Arabic-Persian dictionary, the earliest of its kind, compiled sometime between the late eleventh century and the first three decades of the twelfth century. The Iranian lexicographer renders the Arabic *zujāja* with the Persian word *ābgīneh*, "glass."¹⁸⁰ Until shown otherwise, there is no textual evidence that rock crystal vessels were made in the Arab homeland at the time of the Prophet's life, when Iran had already been making them since the Achaemenid age (559–531 BCE), more than a thousand years earlier.¹⁸¹

* * *

The broader context of Iranian culture explains why rock crystal was given a prominent place in art. A fundamental reason for the choice of rock crystal as the Iranian preferred material for wine cups (*jām*) lay in its transparency. All Persian poets praise it for this quality and the authors of technical treatises on mineralogy rate the varieties of rock crystal according to their degree of clarity. This insistence on transparency was not primarily due to an aesthetic approach. It was caused by the primordial importance attached to the color of wine, the deep red of blood. Countless Persian poems echo the awareness that wine libations were a substitute for sacrificial blood libations, even though the substitution had taken place in very ancient times, long before the formation of the first Iranian empire (559–331 BCE).¹⁸²

Seeing the red color of the wine was felt to be an essential aspect of wine libations and the noblest transparent material was considered in Iran to be rock crystal.

When Bīrūnī writes around the early eleventh century in the chapter dealing with rock crystal from his Encyclopaedia of Primary Substances (*Kitāb al-Jamāhir fi'l-Jawāhir*) that “rock crystal is the most costly of primary substances from which they make vessels even if not used with profligacy,”¹⁸³ he voices a generally held view – Jowharī Neyshābūrī repeats this statement in the late twelfth century (see above). Bīrūnī specifies a few lines further:

شرفه بالصِّفاء و ممائلة أصلي الحياة من الهواء و الماء

Its nobility lies in its clarity and in its analogy to the two principles of life, air and water

With such a grand perception of rock crystal, it is no wonder that the hardstone was set above gold when it came to making wine vessels for kings.

As time goes on, the list of recognized Iranian rock crystal artefacts is likely to lengthen through proper archaeological excavations and occasionally through reconsidering pieces long preserved in the West. The number of very fine rock crystal objects known at this stage to have come out of the Iranian world includes previously unknown models. To cite but one example, small perfume flasks were made of rock crystal. A piece in The al-Sabah Collection, inv. LNS 550 HS, 6.6 cm high (fig. 50) designed as a tall, very slightly tapering tower topped by a rounded dome, is impeccably wrought. Recovered from underground in Herat, as was reported by the vendor, it retains the bronze needle that kept the perfume from spilling over.

At a lower end of the quality scale, small flasks carved with a certain lack of concern for perfect regularity that approaches clumsiness in some are all known to have been dug up in the great centers making rock crystal vessels.

Pieces dug up in Qal'a-i Naw, in the province of Herat, show that the geometrical style known from “white bronze (*safīdrūy*)” vessels of the ninth or tenth century was represented by some rock crystal small jars as it was by gaming pieces illustrated above.

A small bottle in The al-Sabah Collection, inv. 298 HS, 3.8 cm high and 3.1 cm across (in the

diameter of the imaginary circle that would circumscribe its hexagonal shape), is carved in low relief with hexagonal facets on its six sides (fig. 51). Each facet is in turn carved in sunken relief with a disk. The recessed low everted neck is carved with two imbricated rows of triangular diamonds.

On another bottle from Qal'a-i Naw in The al-Sabah Collection, inv. 523 HS, 5.05 cm high and 2.85 cm in diameter, hexagonal facets are carved on the cylindrical body (fig. 52). A tiny lozenge is carved out at the center of each facet. The space left between consecutive facets, is covered with geometrical facets, also carved in low relief.

The rock crystal of both small bottles recovered from Herat is of good quality by contrast with the modest skill displayed in the geometrical carving.

This is precisely what makes the two pieces inv. LNS 298 HS and inv. LNS 523 HS very interesting. The less than average level of craftsmanship can be variously explained. The bottles could be the work of trainees in major workshops or lesser craftsmen employed in minor workshops. But either way, these pieces imply that the semi-precious hardstone was readily available, even to artisans whose limited skills hardly justified their being entrusted with the expensive material. The existence of the lesser talented craftsmen and the wide range of qualifications that it reveals is to be expected in a long-established tradition of rock crystal carving which we know was the case as proved by the Sasanian-period rock crystal pieces and fragments from the Achaemenid-age vessels excavated at the imperial palace site of Takht-e Jamshīd (“Persepolis”).

It is worth noting in passing that the rock crystal vessels and the rock crystal gaming pieces could be made in the same workshops: a gaming piece in The al-Sabah Collection, inv. LNS 383 HS a, 3.64 cm high and 2.7 cm in diameter (above fig. 30) and a small bottle from Herat in the same al-Sabah Collection, 5.95 cm high, inv. LNS 499 HS (fig. 41) are carved with the same geometrized lotus petals. They so closely resemble each other that they might even be the work of the same craftsman.

Ultimately, it is not the number of rock crystal vessels and chess pieces recognized as Iranian artefacts that matter the most in revealing the importance of the role played by the material in Iranian culture. It is the echo that rings throughout Persian sources, from the *Šāhnāme* to trea-



Fig. 50. A perfume flask (‘atrdān) in The al-Sabah Collection, 6.6 cm high, LNS 550 HS, reproduces in miniature size an architectural model in the form of a tall slightly tapering tower. Topped by a rounded dome, the piece which is impeccably wrought, was said by the vendor to have come out of Herat. Copyright The al-Sabah Collection, Dar-al-Athar al-Islamiyyah, Kuwait.

tises penned by craftsmen. That echo could be heard further back in time. Recommending rock crystal vessels for drinking wine precedes the appearance of Persian poetry. In the eighth century, Abū Nuwās, born in Ahvāz in southwestern Iran, of mixed Arab and Iranian parentage, wrote Arabic poems which are laden with Iranian nouns for wine vessels and sing the Iranian style wine ban-



Fig. 51. Small flasks handled in the geometrical style represented by ninth to tenth century white bronze (safidrūy) vessels with a high tin content have been dug up at Qal‘a-i Naw in the Fariyāb district of the Herat province. The small hexagonal bottle LNS 298 HS in The al-Sabah Collection, 3.8 cm high, is carved with hexagonal facets in low relief on each side and closely resembles metal models. The low everted neck carved with two imbricated rows of triangular diamonds enhances the similarity. Copyright The al-Sabah Collection, Dar-al-Athar al-Islamiyyah, Kuwait.

quet. He urges in one of his poems:

Drink, my friend, in rock crystal cups (*kāsāti bulār*)
At a banquet enlivened by a variety of
flowers¹⁸⁴

The hint here is at the need to inhale the smell of roses while drinking wine which was later forever sung in Persian poetry. The line by Abū Nuwās, like Ferdowsī’s multiple mentions of rock crystal cups in the part of the *Šāhnāme* dealing with the Sasanian dynasty, indicates that drinking wine from rock crystal cups continued a long-established custom rooted in the pre-Islamic past of Iran.

Further evidence that rock crystal vessels were very deeply embedded in Iranian tradition may be recognized in the fact that they were celebrated across the Iranian world, in the east but also in the northwest from the very beginnings of Persian poetry. They are mentioned in the earliest



Fig. 52. Another flask that was also dug up at Qal'a-i Naw, 5.05 cm high, LNS 523 HS. The cylindrical body is carved with hexagonal facets. A tiny lozenge is carved at the center of each facet. The intervals between consecutive hexagonal facets are carved in low relief with further geometrical motifs. Copyright The al-Sabah Collection, Dar-al-Athar al-Islamiyyah, Kuwait.

surviving *dīvān* from a poet writing in Persian in historic Arrān, in the modern Republic of Azerbaijan, in a manner that implies great familiarity with the hardstone.

In a joint panegyric on Amīr Jastān, the ruler of the minuscule principality at the northwestern tip of the Iranian world, and on a certain Abu'l-Ma'ālī (his Vizier?), so far unidentified in historical sources, Qaṭrān Tabrīzī coined around the mid-eleventh century a couplet about the reflections of the light of wine, contained in a rock crystal beaker (*qadah*):

شود بلور ز عکس رُختِ بلون عقیق
چو اوفتد ز قدح بر رُختِ شعاع شراب

The reflection of your face gives rock crystal the hue of carnelian

When the sunrays of the wine fall from the beaker on your face¹⁸⁵

The hyperbolic first hemistich celebrates the red hue of the ruler's face whose reflection colors the rock crystal of his beaker. This happens as "the sunrays of the wine" fall from the vessel, held up high, on the Amīr's face. Qaṭrān might have had in mind a piece such as the beaker acquired from a Qazvīn source by the British Museum (above, fig. 9).

If ever proof was needed that the art history of Iran is part of the broader cultural history of this ancient civilization and cannot be written without integrating the wealth of evidence yielded by literature, this is it.

Notes

1. Michael Vickers drew attention long ago to Iranian rock crystal of the Achaemenid period in "Rock Crystal: The Key to Cut Glass and *diatetra* in Persia and Rome," *Journal of Roman Archaeology* 9 (1996), pp. 49–65. See pp. 54–56. He noted its use at the ancient Iranian court by citing Aristophanes (pp. 54–55), corroborated by the fragments excavated at Takht-e Jamshīd ("Persepolis") mentioned on p. 50. See Eric Schmidt, *Persepolis II: Contents of the Treasury and Other Discoveries* (Chicago, 1957), which Vickers cites for p. 9 pl. 65, nos. 7–11.

2. Moḥammad b. Abī'l-Barekāt Jowharī Neyshābūrī, *Javāher-Nāme-ye Neẓāmī*, ed. Īraj Afshār with the collaboration of Moḥammad Rasūl Dariyāgasht (Tehran, 1383/2004).

3. Art historians write about the art of England, France, Germany, Italy, Spain, and all the other European cultures and would not dream of lumping it all under the blanket characterization "Christian Art." Their Western colleagues writing about the art of the Arab world, the Iranian world, Anatolia under the Seljuqs and Ottomans, Moghul India, etc., do not hesitate to lump it all under the denomination "Islamic Art." Yet the differences that separate these are considerably greater than those separating the works of art of Western European nations from each other.

4. A number of examples are given in the following pages. I submitted some revisions in Assadullah Souren Melikian-Chirvani, ed., *The World of the Fatimids*

(Toronto, London, Munich, 2018). See “Fatimid Rock Crystal” pp. 103–6.

5. Abū Saʿīd ʿAbd al-Ḥayy b. al-Zaḥḥāk b. Maḥmūd Gardizī, with a preface by Mirzā Muḥammad Khān Qazvinī, *Zeyn al-Akḥbār* (Tehran, 1327/1949), p. 65. Extensively cited in my monographic essay on the wine banquet in early Islamic Iran, “The Iranian *Bazm* in Early Persian Sources,” *Res Orientales IV: Banquets d’Orient* (Bures-sur-Yvette, France, 1992), pp. 95–119. See p. 116. *Āʾinehā* is probably used here with its secondary meaning: disks hung from trappings of horses and elephants.

6. Īraj Afshār in Jowharī Neyshābūrī, *Javāher-Nāme-ye Neẓāmī*, preface p. 16.

7. Avinoam Shalem, “On Medieval Rock Crystal Sources and Resources in the Lands of Islam” in *Seeking Transparency: Rock Crystals Across the Medieval Mediterranean*, ed. Cynthia Hahn and Avinoam Shalem (Berlin, 2020), pp. 101–15. See p. 107, n. 52 citing Parviz Mohebbi, “Gemcutting,” *Encyclopaedia Iranica*, ed. Ehsan Yarshater, vol. 10, no. 4 (London-Boston, 2001), pp. 397–98.

8. *Javāher-Nāme-ye* pp. 209–12 down to l. 7.

9. Mohammad Hoseyn b. Khalaf Tabrīzī known as Borhān Tabrīzī, *Borhān-e Qāteʿ*, ed. Moḥammad Moʿīn (Tehran, 1362/1983, five volumes) vol. *jīm-sīn*, p. 1142 glosses *saghrāq*: *kūze-ye lūlehdār*, “jug with a tubular spout.” The lexicographer vocalizes it “with a *fatḥa* on the first letter,” i.e., *saghrāq*. This makes it a synonym of *balbaleh*, identically glossed in vol. *alif-thāʾ*, p. 296. The noun *ṣorāḥī*, from the Arabic *ṣurāḥ*, “pure/clear,” is not entered in Persian dictionaries of traditional type.

10. In the chapters dealing with the gems in question, see “Likenesses of the spinel gem that can be made artificially (*Ashbāhī ke jowhar-e laʿl-rā be-tavān sākht be ʿarīq-e ṣanāʿat*),” *Javāher-Nāme-ye Neẓāmī*, pp. 123–25.

11. *Javāher-Nāme-ye Neẓāmī* p. 213. The same story is recounted by Birūnī, *Kitāb al-Jamāhir fīʾl-Jawāhir*, pp. 298–99.

12. For an example of an eighth-century bronze *kadū* from Khorasan, see Giovanni Curatola, ed., *Art from the Islamic Civilization from The al-Sabah Collection Kuwait* (Milan, 2010), p. 48 right hand vessel, and p. 49 caption 8 where the piece, inv. LNS 85M, not identified as a *kadū*, is simply called an ewer.

13. Walther Hinz, *Islamische Masse und Gewichte* (Leiden-Cologne, 1970), p. 18, writes that “the small or canonical *mann* weight (*mann-e sharʿī*) = 5/6 kg prevailed until about the mid-fourteenth century in Iran” (“Persia” in the outdated denomination of his generation of Western Orientalists). This seems a huge capac-

ity for a rock crystal vessel. Either Hinz, or Kāshānī, or a manuscript scribe may have made a mistake.

14. Abūʾl-Qāsem ʿAbdollah Kāshānī, *ʿArāyes al-Javāher va Nafāyes al-Atāyeb*, ed. Īraj Afshār (Tehran, 1345/1966), pp. 142–43. On *piyāzakī*, a variety of spinel defined by its nuance of red, see Assadullah Souren Melikian-Chirvani, “The Red Stones of Light in Iranian Culture. I. Spinel,” *Bulletin of the Asia Institute* 15 (2001, printed 2005), pp. 77–110, see p. 87. On Shams al-Dīn Joveynī, see Mirzā Moḥammad Qazvinī: *The Taʾrikh-i Jahān-Gushā of ʿAlāʾuʾd-Dīn ʿAṭā Malik-i-Juwaynī* (London, 1912–1937, 3 vols.) vol. 1, pp. *yā-alif* to *ʿayn-zā*, with English shortened version pp. I–XCIII.

15. Moḥammad b. Maṣṣūr, *Gowhar-Nāmeḥ*, ed. Manūchehr Sotūdeh, in *Farhang-e Irān-Zamīn* (Tehran, 1968–1969). On *bolūr*, pp. 258–61. See p. 259.

16. Carl Johan Lamm, *Gläser und Steinschnittarbeiten aus dem Nahen Osten*, ed. Friedrich Sarre (Berlin, 1929–1930, 2 vols.) vol. 1, p. 510, n. 142. Shalem, “On Medieval Rock Crystal Sources and Resources in the Lands of Islam,” in *Seeking Transparency*, ed. Hahn and Shalem, pp. 101–15. See p. 111. Lamm transliterated *khawāb* as “*čawāb(?)*” making it sound like a Persian noun *jūāb*, “barley water.” The letters *ḥāʾ*, *khāʾ*, *jīm* in Arabic and *che* in Persian all have the same shape and are differentiated by the position and number of diacritical dots, hence Lamm’s hesitant transliteration presumably based on scribal error in a manuscript.

17. ʿAlā al-Dīn ʿAlī b. ʿAbdallāh al-Bahāʾī al-Ghazūlī al-Dimashqī, *Maṭālīʿ al-Budūr fī Manāzil al-Surūr*, ed. Al-Tijānī Saʿīd Maḥmūd (Beirut, 1438/2017, 2 vols.) vol. 2, p. 249. Walther Hinz, *Islamische Masse und Gewichte* pp. 24–27 gives wildly divergent equivalents for the *qinṭār* depending on the countries. He estimates the Iranian metric equivalence to be 57 kgs (p. 26). A total capacity of 171 to 228 liters for a rock crystal vessel is not plausible. The weight cited must be understood as an exaggeration intended to convey the huge size of the vessels.

18. Aḥmad b. Yūsuf al-Tifāshī, *Kitāb Izhār al-Afkār fī Jawāhir al-Aḥjār*, ed. Muḥammad Yūsuf Ḥasan and Maḥmūd Basiyūnī Khafajī, 3rd ed. (Cairo, 1436/2015).

19. Shalem, “On Medieval Rock Crystal,” p. 104.

20. Al-Tifāshī, p. 202.

21. Moḥammad Modabberī, *Sharḥ-e Aḥvāl va Ashʿār-e Shāʿerān-e bī-dīvān dar qarnhā-ye 3–4–5 Hejrī-e Qamarī* [The Biographies and the Verses of the Poets Without a *Dīvān* [= Collected Poems]] (Tehran, 1370/1991), p. 93 couplet 168. On the *Āfarīn-Nāmeḥ* and Abū Shokūr Balkhī, *ibid.* p. 82.

22. Avinoam Shalem, “Fountains of Light: The Meaning of Medieval Islamic Rock Crystal Lamps,”

Muqarnas 11 (1994), pp. 1–11. See p. 6 where the first couplet is mistranslated “Water and ice in crystal bowl combine – Behold these three, which like a bright lamp shine.” “Lamp” which renders *shamʿ*, “candle,” also takes liberties with the meaning in the name of poetic license no doubt.

23. *Dīvān-e Daqīqī-e Tūsī*, ed. Moḥammad Javād Sharīʿat (Tehran, 1368/1989), p. 106 couplet 98. These are the only surviving verses of what may have been a long ode (*qaṣīdeh*).

24. On the *Šāhnāme* auditive and visual environment at Iranian courts, including the appointment of a Qurʾan Cantor to the King, see Assadullah Souren Melikian-Chirvani, “Le Livre des Rois, miroir du destin,” *Studia Iranica*, 17, no. 1 (Paris, 1988), pp. 7–46. On the Qurʾan *kān*, see pp. 33–34.

25. See Assadullah Souren Melikian-Chirvani, “Les Frises du Shāh-Nāme dans l’architecture iranienne sous les Īlkhān,” *Studia Iranica* 18 (Paris, 1996), 127 pages and 66 black and white plates. In 1991, I showed that the construction of the summer palace for the Mongol ruler Ābāqā Khān (1265–1281) at Takht-e Soleyman was undertaken under the sign of the *Šāhnāme* by identifying, among other things, *Šāhnāme* verses on tiles scattered around the world reproducing a specific model of which one fragment recovered by the German archaeologists on the site carries these letters from a *Šāhnāme* hemistich: [Forūmānd Sīndokh]t az-īn goft [gūy]: Assadullah Souren Melikian-Chirvani, “‘Le Livre des Rois, miroir du destin’ II. Takht-e Soleyman et la symbolique du Shāh-Nāme,” *Studia Iranica* 20, no. 1 (Paris, 1991), pp. 33–148. See pl. XIV, fig. 24.

26. *Šāhnāme* scenes on some fritware vessels have yet to be recognized for what they are. I hope to deal with the subject elsewhere. For an example of *Šāhnāme* scenes on metalwork, see the silver and gold-inlaid brass basin (*tās*) inv. 760–1889 in: Assadullah Souren Melikian-Chirvani, *Islamic Metalwork from the Iranian World 8th–18th Centuries* (London, 1982) pp. 223–29. See also the Victoria and Albert Museum large basin of the *tasht* type inv. 546–1905 (mistakenly called a *lagan*) *ibid.* pp. 202–7.

27. Jules Mohl, ed. and trans., *Le Livre des Rois par Abou’l Kasim Ferdowsi* (Paris, 1838–1878) 7 vols.; Paris reprint, 1976. Vol. 1, p. 362 l. 1817. Hereafter cited under “Mohl,” followed by volume number.

28. Mohl III, p. 312 l. 255.

29. Mohl IV, p. 558 l. 2376–2378.

30. On the metaphor of “the blood of the cock” and the echo it sends to libations of sacrificial blood at the dawn of Iranian civilization, see Assadullah Souren Melikian-Chirvani, “The Wine Birds of Iran from Pre-

Achaemenid to Islamic Times,” *Bulletin of the Asia Institute* 9 (1995, printed 1997), pp. 41–97. See pp. 54–73 on wine-cocks, and especially pp. 54–55 for references to the blood of the bird.

31. See Melikian-Chirvani, “The Iranian *Bazm* in Early Persian Sources,” pp. 114–17 on the role of the banquet as a tool of governance and diplomacy.

32. See, for example, *The Shahnama of Shah Tahmasp*, introduction by Sheila R. Canby (New York, The Metropolitan Museum of Art, 2011), folio 7R. The Ghazna poets meet Ferdowsi whom they host over a banquet. A young courtier raises a shallow wine cup toward Ferdowsi while one of the poets clutching a towel with one hand draws his attention to a *ṭabaq* (tray) with red pomegranates and olive yellow quinces.

33. Mohl V, p. 576 l. 296.

34. Mohl V, p. 590 l. 468.

35. Mohl V, p. 590 ll. 472–73.

36. A vivid illustration of the tradition is provided on the *tasht* of the early fourteenth century cited in n. 18.

37. Mohl V, p. 600 ll. 581–82.

38. Mohl V, p. 620 l. 817.

39. Mohl V, p. 622 ll. 838–39.

40. Mohl V, p. 624 l. 866.

41. Mohl V, p. 662 l. 1344.

42. Mohl VI, p. 30 l. 316.

43. Mohl VI, p. 66 ll. 738–41.

44. Mohl VII, p. 316 ll. 3752–53.

45. Mohl V, p. 168 l. 823; p. 169 the French text reads: “un trône soutenu [“supported”] par des colonnes en crystal” which, in practical terms, is less likely.

46. Melikian-Chirvani, *Islamic Metalwork from the Iranian World 8th–18th Centuries*, p. 122 pl. 50; p. 131 pl. 59A. The third hemistich must be pronounced *Neshassatgah-e Shāh-e Bahrām-Gūr* if it is to scan, instead of *Neshastgah-e* etc.

47. Mohl V, p. 618 ll. 788–789. The couplets are noted in identical form in *Shāhnāme*, ed. Jalāl Khāleqī Moṭlaq and Maḥmūd Omīd-Sālār, vol. 6 (New York, 1384/2005), pp. 476–77 couplets 779–780. The second couplet is missing in one of the manuscripts on which the New York edition is based: p. 477 n. 1.

48. Mohl VI, p. 24 ll. 238–40.

49. See Stefano Carboni, *Glass of the Sultans* (New York, 2001), pp. 134–36 for a detailed review of such disks, including some to the name of Khosrow Malek, the last Ghaznavid ruler and the Ghūrīd ‘Atābēg Jahān Pahlavān ‘Omar b. al-Ḥusayn Noṣrat. See further, Stefano Carboni, *Glass from Islamic Lands: The al-Sabah Collection. Kuwait National Museum* (London, 2001),

five disks (three in fragmentary condition) p. 280 cat. 73 f-i. "F" depicts a royal character in a *maḥmal* carried by an elephant. The mahout's ankus is visible and is a variant of this model. H and I depict a royal rider, his left wrist extended to allow his kestrel to perch. F definitely, and G and I probably, relate to *šāhnāme* episodes which Carboni does not mention. On p. 279, Carboni suggests they were "set in stucco windows" citing "a large near-domical object acquired by the Collection in 1997" which is "a convex piece, in which are set two concentric rows of glass roundels," adding it "was probably the element of a bathroom ceiling." "The dome of a royal bathhouse" would be a more appropriate assumption.

50. Mohl V, p. 226 l. 1507.

51. An example of an Iranian hanging glass lamp is illustrated in Shalem, "Fountains of Light." See p. 7 reproducing a lamp in the David Collection, Copenhagen, inv. Nr. 14/1964.

52. Mohl VI, p. 48 l. 513.

53. Asadī Ṭūsī, *Garšāspnāme*, ed. Ḥabīb Yaghmā'i (Tehran, 1393/2014). On the identification of pre-Islamic vessels as wine boats starting in the early first millennium BCE, see Assadullah Souren Melikian-Chirvani, "From the Royal Boat to the Beggar's Bowl," *Islamic Art* 4 (1992), pp. 3–111. See pp. 11–18.

54. Ṭūsī, *Garšāspnāme*, p. 70 couplets 7–8.

55. Ṭūsī, *Garšāspnāme*, p. 307 ll. 58–59. *Khūbānparast*, "the beauty worshippers," seems odd. This might be a scribe's mistake for *Khosrow-parast*, "the king worshippers" (i.e., devoted to the king), a phrase found elsewhere in the *Garšāspnāme*.

56. Assadullah Souren Melikian-Chirvani, "The Iranian Wine Leg from Prehistory to Mongol Times," *Bulletin of the Asia Institute* N.S. vol. 11 (1997, printed 2000), pp. 65–91. Omitted in earlier Persian dictionaries, the noun *āyāgh* is entered by Borhān Tabrizī apparently for the first time in Persian lexicography: Moḥammad Ḥoseyn b. Khalaf Tabrizī, *Borhān-e Qāte'*, ed. Moḥammad Mo'in (Tehran, 1362/1983, 5 vols.) vol. *Alif-Thēh* [= I] p. 193, where the gloss says "*Ayāgh*, rhyming with *damāgh*; a bowl (*kāseh*) and a shallow bowl (*piyāleh*) for drinking wine." In a footnote to the gloss, Mo'in, citing Chaghaṭāyī, writes: "In Turkish, *Ayāgh*, *ayāq* is a foot/leg (*pā*) and a wine cup." Eastern Turkish evidently retained the derived Persian meaning of *pā* "leg/foot" when using *ayāgh* to describe a wine leg.

57. *Garšāspnāme*, p. 372 couplet 80.

58. Asadī Ṭūsī, *Loghat-e Fors*, ed. Moḥammad Dabīrsiyāqī (Tehran, 1336/1957), p. 103. On *pālogh* and the misspelling of the noun in some later dictionaries,

see Assadullah Souren Melikian-Chirvani, "Le rhyton selon les sources persanes," *Studia Iranica: Mélanges offerts à Raoul Curiel*, Tome 11 (1982), pp. 282–84. In early Persian spelling, the letter P is not differentiated from the letter B by supplying three dots under the line. There is no difference between *pālogh* and *bālogh*. The latter merely records the existence of the archaic spelling. The only other poet recorded to have been using the noun *pālogh* alongside Rūdakī and Asadī Ṭūsī is the latter's contemporary 'Emāreh Marvazī in two couplets citing other objects designated with nouns that were also obsolete by then. See *Shā'erān-e bī-Dīvān*, pp. 352 and 362. Page 352 *ketāb*, "book," at the end of a couplet, is a scribe's absent-minded misreading for *rekāb*, the eight-lobed wine boat.

59. D. N. MacKenzie, *A Concise Pahlavi Dictionary* (London, 1971), p. 81 where *takōk* is explained, not translated, as "a drinking vessel." The early Persian dictionaries thus provide the precise meaning of the Pahlavi word while early Persian poetry yields the context, often royal, in which the object appeared.

60. *Garšāspnāme*, p. 372 couplet 85.

61. *Garšāspnāme*, p. 372 couplet 73.

62. *Garšāspnāme*, p. 209 couplets 20–21.

63. *Lāleh*, "wild anemone," is derived from *lāl*, "red," which, in its Arabized spelling, becomes *la'l*, the name of the spinel thus called for its red color.

64. For example, the *lāleh*-shaped bowl in the David Collection reproduced in Melikian-Chirvani, ed., *The World of the Fatimids*, pp. 300–301 where illustrated, and p. 356, inv. nr. 7/1970. First published by Kjeld von Folsach, *Art from the World of Islam in The David Collection* (Copenhagen, 2001), p. 133 cat. 109.

65. *Garšāspnāme*, p. 296 couplets 71, 72, 73. Assadullah Souren Melikian-Chirvani, "Nezāmī, Goldsmith and Jeweller" (in preparation).

66. Fakhr al-Dīn As'ad-e Gorgānī, *Vīs o Rāmīn*, eds. Magali A. Todva and Alexander A. Gwakharia (Tehran, 1349/1970), p. 87 couplet 48.

67. Gorgānī, *Vīs o Rāmīn*, p. 269 couplets 173–77. Throughout his narrative, when he evokes the delicate white nuance of a woman's skin, Gorgānī compares it with rock crystal. He does so right at the beginning when describing Vīs growing into a young woman: *Vīs o Rāmīn* (p. 46 couplet 2):

شد آگنده بلورین بازوانش چو یازنده کمند گیسوانش

Her arms became studded rock crystal pieces

Her curls became stretched-out lassoes

Later, while describing her own appearance in a long response to Rāmīn, Vīs says (*Vīs o Rāmīn*, p. 329 couplet 93):

مرا گردن بلورین سینه سیمین به نرمی قائم بر بوی نسرین

My neck is rock crystalline and my chest silvery
It is ermine for its softness and a daffodil for
its odor

When addressing Vīs in a letter, Rāmīn celebrates her skin in identical terms as part of a string of metaphors drawn from the mineral and architectural terminology (*Vīs o Rāmīn*, p. 419 couplet 4):

ستون نقره و پیرایه تاج سهی سرو بلورین گنبد عاج

Column of silver, ornament of the crown
Slender cypress of rock crystal, cupola of ivory

Gorgānī's stereotyped comparisons with rock crystal when singing the whiteness of feminine skin implies that rock crystal was much in evidence. A technical precision about studding in the first quotation shows that the poet looked at material reality. Vessels made of crystal studded with precious stones of which the only recorded specimens are centuries later were apparently already being made in early eleventh-century Iran.

68. *Šarāfnāme*, ed. Hasan Vahīd Dastgerdī (Tehran reprint, n. d.), p. 225 l. 11.

69. *Šarāfnāme*, p. 340 couplet 9.

70. *Šarāfnāme*, p. 293 l. 7.

71. Roman Ghirshman, *Parthes et Sassanides* (Paris, 1962), p. 205 pl. 244 where designated as the "Coupe de Khosroès 1^{er} dite <Tasse de Salomon> (VI^e G. apr. J.-C.)." Each roundel size, in each color (red, green, white), is represented nine times, making in all twenty-seven roundels with abstract pattern. With the central roundel, this adds up to twenty-eight, the number of days in the lunar calendar month. Some might construe this as an argument pointing to a date in the Islamic period.

72. "Solomon's Cup (*Jām-e Soleymān*)" is sung in Persian poetry: Raḥīm 'Afīfī, *Farhang-e She'rī* [Dictionary of Poetry] 3 vols. (Tehran, 1376/1997) vol. *alif-khā* [=1] p. 527.

73. Ghirshman, *Parthes et Sassanides*, p. 391 cat. 244. Soleymān, in Iranian thinking, is the archetypal king of the world. Sending it as a present to Charlemagne by Harun al-Rashid, who lived in the heavily Persianized Baghdad, would have amounted to a eulogistic gesture.

74. Zainab Bahrani, "Crystal Words: The Power of Stones in the Ancient Near East," *Seeking Transparency*, ed. Hahn and Shalem, pp. 138–39 inv. 379 H. 5

cm, D. 28.2 cm.

75. Ghirshman, *Parthes et Sassanides*, color plate p. 222 and p. 392 cat. 264, as "époque sassanide." Bahrani, "Crystal Words," p. 139 fig. 7 as "Iran, seventh or eighth century." A couplet by Ḥafeẓ hints at crescent-shaped boats holding *vasmeh*:

The world has drawn *vasmeh* over the eyebrow of
the 'Eyd

One must see the crescent of the 'Eyd in the
eyebrow of the Beloved

Dīvān-e Khwāje Ḥāfaz-e Shīrāzī, ed. Abu'l-Qāsem Inju'ī Shīrāzī (Tehran, 1372/1993), p. 226. Missing in the editions of Nātel-Khānlārī and Afshār.

76. Sotheby's, *Islamic Art* (Geneva, 1985), lot 188. Its unacknowledged provenance from the Iranian trade is worth mentioning. Objects recovered from underground, as this one clearly is, are not known to have been coming out of Iraq at that period or in the few years preceding it.

77. Among countless pre-Islamic examples, the painted buff wares excavated at Tall-e Maliyān, 46 km north of Shīrāz, may be cited. Earthenware vessels from the Kaftārī period in the early second millennium BCE have criss-cross borders, squares, and triangles: William Sumner, "Excavations at Tall-i Malyan, 1971–72," *Iran* 12 (1974), pp. 155–80. See pp. 164–69, notably p. 165 figs. c, e, j, k and l (line drawings) and pl. IVD (a squat jar).

78. Charles K. Wilkinson, *Nishapur: Pottery of the Early Islamic Period* (New York, 1973), pl. in p. 48 cat. 66 and p. 23 for entry.

79. Christie's, *Islamic Art, Indian Miniatures, Rugs and Carpets* (London, 17 October 1995 and 19 October 1995), p. 113 lot 286.

80. *Dīvān-e Ostād-e 'Onṣorī-e Balkhī*, ed. Moḥammad Dabīrsiyāqī (Tehran, 1342/1963), couplets 1968, 2740, 2849, and 3228.

81. Moḥammad Qāsem b. Ḥājī Moḥammad Kāshānī [Sorūrī], *Majma' al-Fors*, ed. Moḥammad Dabīrsiyāqī 3 vols. (Tehran, 1338/1959) vol. 1, p. 434 in the entry *khonūr* "one of household utensils such as bowls, jars and such like." Also in *Dīvān-e 'Onṣorī*, p. 343 couplet 3256.

82. *Dīvān-e Ostād-e 'Onṣorī*, p. 203 couplet 1968.

83. *Dīvān-e Ostād-e 'Onṣorī*, p. 292 couplet 2740.

84. *Dīvān-e Manūchehrī-e Dāmghānī*, ed. Moḥammad Dabīrsiyāqī (Tehran, 1347/1968), p. 34 l. 522.

85. *Dīvān-e Farrokhī-e Sīstānī*, ed. Moḥammad Dabīrsiyāqī, 2nd ed. (Tehran, 1343/1970), p. 222, l. 4436 couplets 4435–4436. The poet addressing the amir says that his face has the beauty of the Buddhist

temple (*bahāra* = *viḥāra*).

86. Maḥmūd Modabberī, *Sharḥ-e Aḥvāl va Ash‘ār-e Shā‘erān-e Bī-Dīvān dar qarnhā-ye 3–4–5 Hejrī-e Qamarī* [An Account of the Lives and Verses of the Poets without a *Dīvān* in the 3–4–5 Centuries of the Islamic Lunar Calendar] (Tehran, 1370/1991), p. 492.

87. Notably the romance Vāmeq va ‘Ozrā of which the fragments have been collected by the Georgian scholar Inga Kaladze, *Epicheskoye Nasledye Unsuri* [The Epic Legacy of ‘Onṣorī] (Tbilisi, 1983); Persian text pp. 59–86 (372 couplets). A second romance composed in the *Motaqāreb* meter is represented by 98 couplets. The Greek names of the characters and locations point to an adaptation of, or derivation from, a Hellenistic period model. The 89 couplets of a third *masnavī* romance in the *Khafīf* meter are gathered on pp. 98–103. The mention of the *Shāh-e Ghazneyn* (p. 98 couplet 3) suggests a context contemporary with the poet.

88. Ostād-e Abū Nazar ‘Abd al-‘Azīz ebn-e Maṣṣūr-e ‘Asjadī-e Marvazī, *Dīvān*, ed. Ṭāherī Shehāb (Tehran, 1334/1955), p. 32.

89. ‘Asjadī, *Dīvān*, p. 32 n. (not numbered).

90. ‘Asjadī, *Dīvān*, p. 33.

91. ‘A. Khayāmpūr, *Farhang-e Sokhanvarān* [Dictionary of Poets] (Tabriz, 1340/1961), p. 39.

92. Hakīm Abū Mo‘īn Ḥamid al-Dīn Nāṣer b. Khosrow-e Qobādiyānī, *Dīvān-e Ash‘ār*, ed. Hājī Sayyed Naṣrollāh Taqavī, 4th ed. (Tehran, 2535 Sh./1976), p. 198 couplet 15.

93. *Dīvān-e Azraqī-e Heravī*, ed. Sa‘īd Nafisī (Tehran, 1336/1957), p. 79 ll. 1960–1962. The panegyric was written not later than 466/6 September 1073–26 August 1074 when the unfortunate ruler was blinded: Nafisī, p. 7.

94. *Dīvān-e Azraqī-e Heravī*, ed. Sa‘īd Nafisī (Tehran, 1336/1957), p. 79 ll. 1960–1962.

95. *Dīvān-e Azraqī-e Heravī*, p. 41 couplets 1054–1056.

96. *Dīvān-e Azraqī-e Heravī*, p. 38 couplets 967–968.

97. *Dīvān-e Osmān-e Mokhtārī*, ed. Jalāl al-Dīn Homā‘ī (Tehran, 1341/1962), p. 64.

98. *Dīvān-e Khāqānī-e Shirvānī*, ed. Ziyā al-Dīn Sajjādī (Tehran 2537 Sh./1358/1979), p. 337 l. 8. On Jalāl al-Dīn Akhsatān, see preface, p. 38.

99. *Dīvān-e Khāqānī*, p. 661 third couplet of the third *ghazal*.

100. The *rekāb* as a vessel type was identified in 1995: Assadullah Souren Melikian-Chirvani, “*Rekāb*. The Polylobed Wine Boat from Sasanian to Saljuq Times,” *Res Orientales VII au Carrefour des Reli-*

gions. Mélanges Offerts à Philippe Gignoux (1995), pp. 187–204.

101. *Dīvān-e Khāqānī*, p. 195 couplets 14 and 15.

102. Vickers, “Rock Crystal: The Key to Cut Glass and *diatrete* in Persia and Rome.” See p. 56, illustrated fig. 7. I have never seen the object, which Oscar Muscarella dismissed as “not ancient,” polite speak for “fake” in “Unexcavated Objects and Ancient Near Eastern Art,” in *Mountains and Lowlands: Essays in the Archaeology of Greater Mesopotamia*, ed. L. D. Levine and T. C. Young, p. 182 n. 142 (Malibu, 1977).

103. In an article describing the role played by silver plate at Iranian courts, I cited the *Tārīkh-e Sīstān* recounting how two treasury secretaries started selling off “vessels (*avānī*) and minting *dīnārs* from gold plate (*zarrīneh*) and silver plate (*sīmīneh*):” “Essais sur la sociologie, de l’art islamique—I. Argenterie et féodalité dans l’Iran médiéval,” in *Art et Société dans le Monde Iranien*, ed. Chahryar Adle (Paris, 1982), pp. 143–74, see p. 168. A silver-footed bowl inscribed to the name of the Amīr and commander-in-chief (*al-isfahsālār al-kabīr*) Badr al-Dīn Qarāgöz, identified in the article (pp. 144–55) whose career is echoed by several early sources (pp. 151–56), acquired by the late Edmund de Unger and now on loan in the Dallas Museum of Art was pieced together from a myriad of fragments. It was probably broken up to be melted down, a process presumably interrupted by the Mongol onslaught.

104. Carl Johan Lamm, *Mittelalterliche Gläser und Steinschnittarbeiten aus dem Nahen Osten*, 2 vols. (Berlin, 1929–1930) vol. 2, pl. 68.5 and p. 17.

105. The Arts Council of Great Britain, *The Arts of Islam* (1976), p. 127 cat. 109 with reference to C. J. Lamm.

106. Shalem, “Fountains of Light,” p. 1 fig. 1 caption.

107. Shalem, “Fountains of Light,” p. 2 fig. 3.

108. As may be seen from the various boat models reproduced in Melikian-Chirvani, “From the Royal Boat to the Beggar’s Bowl,” pp. 3–111: p. 77 fig. 1; p. 78 figs. 4 and 5; p. 79 figs. 7 and 8; p. 80 fig. 11; p. 81 figs. 13 and 14; p. 82 fig. 16; p. 83 fig. 20; p. 84 figs. 23 and 24; p. 85 figs. 25 and 26; p. 86 fig. 36 (Ottoman Turkey); p. 90 fig. 41 (Ottoman Turkey); p. 92 fig. 47; p. 93 fig. 49; p. 95 fig. 34; p. 97 fig. 60; p. 108 fig. 96 (eleventh-century Armenia) fig. 97 (Fatimid Egypt); p. 111 fig. 108 (Safavid Iran). The one asymmetrical exception concerns the glazed fritware boats with a human mask at one extremity (*ibid.* p. 86 fig. 28).

109. From its beginnings in pre-Achaemenid antiquity. For burnished earthenware examples from the north Iranian regions, see Trudy S. Kawami, *Ancient Iranian Ceramics from the Arthur M. Sackler Collec-*

tions (New York, 1991), p. 150 pl. 56, and p. 151 where catalogued as "Uartian, eighth–seventh century BC"; p. 153 pl. 57, and p. 153 as "Uartian, ninth–eighth century BC"; p. 148 reproducing the highly stylized lower part of a human (female?) body with its two legs shod. The art historian was unaware of the existence of the "wine legs"/"wine feet" (*Pā-ye sharāb* in Persian means either) of the Islamic period. The identification of the type in my monographic study (above n. 56) only appeared in 2000. Wine legs of the Islamic period have been illustrated here and there but not recognized as such by archaeologists or art historians unfamiliar with Persian literature, e.g., the wine leg from Samarkand in green-glazed pottery moulded in two halves: V. A. Abdullaev, E. V. Rtveladze, and G. V. Shishkina eds., *Culture and Art of Ancient Uzbekistan* 2 vols. (Moscow, 1991) vol. 2, p. 123 cat. 564 "vessel shaped as a boot"; the glass wine leg of the seventh or eighth century in The al-Sabah Collection, inv. nr. LNS 110 kg published as a "drinking vessel ... in the shape of a stylised boot," in Carboni, *Glass from Islamic Lands*, p. 44; and earlier, the extremely important bronze leg excavated at Panjakent (Russian transcription "Penjikent") published by V. I. Raspopova, *Metallicheskie Izdzeliya Rannesrednevekovogo Sogda* (Leningrad, 1980), p. 121 fig. 80. The pointed tip shows that the leg is shod in tight-fitting soft leather.

110. Assadullah Souren Melikian-Chirvani, "The Iranian Wine Leg from Prehistory to Mongol Times," *Bulletin of the Asia Institute* (1997, printed 2000), pp. 65–91.

111. *Divān-e Qaṭrān-e Tabrizī* (Tehran, 1362/1984), p. 485.

112. Moḥammad b. Hendūshāh al-Nakhjavānī, *Ṣeḥāḥ al-Fors*, ed. ‘Abd al-‘Alī Ṭā‘atī (Tehran 2535 Sh./1976), p. 299.

113. *Divān-e Khāqānī*, p. 378.

114. The paradox of a "sea of wine" poured into a "boat" (the name of the boat-shaped vessel) is a frequent conceit in early Persian poetry. *Divān-e Serāj-e Qomrī-e Āmolī*, ed. Yadollāh Shokrī (Tehran, 1368/1989), p. 581.

115. Moḥammad Pādeshāh *motakhalles be* [with the pen name] Shād, *Farhang-e Ānanderāj*, ed. Moḥammad Dabīrsiyāqī (Tehran, 1335/1957–1336/1957: vols. 2 and 3 later n.d.) vol. 2, p. 876. On the dates of Badr Chāchī, see ‘A[li] Khayāmpūr, *Farhang-e Sokhanvarān* [Dictionary of Poets] (Tabriz, 1340/1961), p. 80.

116. The noun *ayāgh* is missing in most early Persian dictionaries, including the *Loghat-e Fors* ascribed to Asadī Ṭūsī, down to Injū Shīrāzī’s *Farhang-e Jahāngīrī*, because it was not considered to be a Persian

word. It is indeed alien to Persian phonology and typically fits into Turkish phonology.

117. N. Venevtseva in Mikhail Piotrowsky, ed., *Zemnoye Iskustvo – Nebesnaya Krasota/Earthy [=Earthly] Art – Heavenly Beauty* (St. Petersburg, 2000), pp. 302–3 cat. 280.

118. In Western scholarly literature, writers invariably refer to the type as a rhyton, from the Greek *rhein* "to flow." This is a generic term for vessels pouring wine in a jet coming out of a narrow opening. There is no reason to retain a Greek word when writing about Iranian vessels which all have specific Persian names in use since the beginnings of the written records of the language, some of which can be shown to go back to Achaemenid Persian nouns.

119. Published in Assadullah Souren Melikian-Chirvani, "The Iranian Wine Horn from Pre-Achaemenid Antiquity to the Safavid Age," *Bulletin of the Asia Institute* 10 (1996, printed 1998), pp. 85–139. See pp. 124–25 and fig. 25.

120. *Ibid.* pp. 115–24. See p. 118 fig. 21.

121. *Rasāyel-e Khayyām. Nowrūz-Nāmeḥ: Resāle-ye Vojūd*, ed. [Mehrdād] Avastā (Tehran, 1313/1934), p. 73.

122. First published as "[a Tray] Iran, tenth century" in Assadullah Souren Melikian-Chirvani, *The World of the Fatimids*, p. 104. H. 5.3 cm, D. 20.1 cm as measured by the basilica scholars.

123. For example, the famous tray in the Louvre from the Alphonse Kann Collection. Arthur Lane, *Early Islamic Pottery*, 4th and rev. ed. (London, 1957), p. 18 and pl. 14B where said to be from "Samarkand." Proportions varied: see Esin Atil, *Ceramics from the World of Islam* (Washington, 1973), pp. 26–27 (inv. nr. 54.16). The tray inv. nr. 52.11 pp. 28–29 reproduces the model with different proportions. Examples closer in profile have been circulating in the art market for years.

124. Giovanni Curatola, ed., *Eredità dell’ Islam: Arte Islamica in Italia* (Milan, 1993), pp. 143–44 cat. 53. Entry by Ernst J. Grube, who credited it to "Egypt 10th c."

125. Polylobed vessels come in all shapes with varying numbers of lobes. For a dish with thirteen lobes reportedly from Ghazni, see Oliver Watson, *Ceramics from Islamic Lands: Kuwait National Museum* (Kuwait, 2004), p. 310 cat. 4.6 Carved decoration under a blue glaze. A bowl with nine lightly cusped lobes painted overglaze is illustrated in Arthur Upham Pope, ed., *A Survey of Persian Art*, 5th ed., 18 vols. (Ashiya, Japan, 1981) vol. 9, *Pottery and Faience*, pl. 697B. A deep bowl painted underglaze and overglaze with eight lobes is illustrated *ibid.*, pl. 650A.

126. Marilyn Jenkins, ed., *Islamic Art in the Kuwait National Museum* (London, 1983), p. 61 as "Bottle carved rock crystal, Egypt, early eleventh century AD" H. 17 cm (actually: 10.5 cm, W. 8.3 cm, as measured by the museum).

127. Lamm, *Mittelalterliche Gläser und Steinschnitarbeiten aus dem Nahen Osten*, vol. 2, pl. 71.2.

128. Ernst Kühnel, *Islamische Kleinkunst: Ein Handbuch für Sammler und Liebhaber* ["a handbook for collectors and art lovers"] (Braunschweig, 1963), p. 211.

129. Anna Contadini in Curatola, ed., *Art from the Islamic Civilization*, p. 77 cat. 45 H. 10.5 cm W. 8.3 cm.

130. Jens Kröger, *Nishapur Glass of the Early Islamic Period* (New York, 1995), p. 67 cat. 71–72.

131. *Ibid.* cat. 72. The descriptions of shapes by Jens Kröger lack precision. The neck is not exactly cylindrical. It has a light flare clearly visible in the black and white plate. It is worth noting that none of the shapes are exclusive to glass. Cat. 71 is exactly matched on a large scale by a high tin bronze decanter in the Iran-Zamin Collection. Cat. 72 is matched by a turquoise glazed jug in the same collection.

132. Kröger, *Nishapur Glass*, p. 70 cat. 86. Inv. 40.170.65.

133. Kröger, *Nishapur Glass*, p. 70 cat. 83. Inv. 38.40.231.

134. Curatola, ed., *Art from the Islamic Civilization*, p. 77 cat. 46. Inv. LNS 77G.

135. Kröger, *Nishapur Glass*, p. 145 cat. 195. Kröger refers to hatching as "diagonal notches" in the entry on a fragment also excavated at Tapeh Madraseh, which was "discarded" in the sloppy manner of the American team: see p. 145 cat. 194.

136. Curatola, ed., *Art from the Islamic Civilization*, p. 229 pl. 212 for examples of ace-of-spade-like escutcheons formed by paired together ibex-head profiles. See also Carboni, *Glass from Islamic Lands*, p. 233 color plate, right hand bottle.

137. John Walker, *A Catalogue of Muhammadan Coins in the British Museum: Arab-Sasanian Coins* (London, 1967, reprint of 1941 ed.), pl. XV, 4 described p. 81.

138. Sotheby Parke Bennett & Co, *The Hever Castle Collection, Volume Two Works of Art* (London, 1983), p. 64, lot 279.

139. Esin Atil, ed., *Islamic Art and Patronage: Treasures from Kuwait* (New York, 1990), p. 88 (plate)-89, cat. 21. LNS 3 HS. H. 10.5 cm. H. 8.3 cm as measured by the museum. Despite the claim to a theme implied by the title, the subject of patronage was not actually dealt with.

140. Curatola, ed., *Art from the Islamic Civilization*, p. 76 cat. 44. H. 17.8 cm. W. 4.4 cm as measured by the museum, revising the label in Atil, *Islamic Art and Patronage*, pp. 86–87 cat. 20.

141. Shalem, "On Medieval Rock Crystal Sources and Resources in the Lands of Islam," p. 110 fig. 3 inv. 1954.1013.1 where "a place of production located in the eastern provinces of Iran" is put forward for the beaker which is considered to be "datable to the ninth or tenth century."

142. Jens Kröger, "The State of Research on Some Rock Crystal Ewers and Related Vessels from Islamic Lands," in *Seeking Transparency*, ed. Hahn and Shalem, pp. 13–33: p. 14 and p. 257, pl. 1 where ascribed to Fatimid Egypt. H. 17 cm. Halberstadt Domschatz inv. nr. 49.

143. Kröger, "The State of Research," p. 15.

144. Kröger, "The State of Research," pp. 27–28 where it is ascribed to Egypt, and plate 2 p. 258 H. 16.7 cm.

145. Pope, ed., *A Survey of Persian Art* vol. 13 pl. 1296B where the vessel simply is called an "ewer" and is given a "twelfth or thirteenth century date." The epigraphy on the Chicago bronze piece points to the twelfth century or late eleventh century.

146. *Bi-al sayyid* [= *bi'l-sayyid*] would be bad Arabic in the first place, by using the preposition *bi* ("at" or "by" or "with," depending on the context) instead of *li* ("for"). The ligature for *li* visible in the plate is actually elongated, as is normal for the *lām* (letter L), and not short as it would be for *bi*, which is thus an unwarranted "correction" made by Shalem. Two lines above this transcription, Shalem noting in romanized characters the inscription on a rock crystal ewer in Florence, makes another mistake which breaks one of the most basic rules of Arabic grammar and could not possibly have been made on a luxury object in rock crystal. Shalem writes: *al-qā'id al-quwwād khāsa*. Together with the inaccurate English equivalents that he provides for the Arabic names of various vessels these peccadilloes point to a lack of familiarity with the language.

147. *Sept mille ans d'art en Iran* (Paris, 1961), p. 167 cat. 904 and pl. CI, 2 as "Neyshābūr, Samārqand style, ninth century." A maxim calligraphed after the words "Blessing to the *shaykh*" (here, an unnamed spiritual master) was unread at the time. It proclaims:

"[Spiritual] knowledge is the noblest of heritages [lit. 'ascendancies'] and generosity the most complex human lot/condition."

148. To be published by this writer in *The Art of Metalwork in Islamic Iran: A Cultural Study* (in preparation).

149. As echoed in numerous Persian verses, most famously in this line by Ḥāfeẓ (*Dīvān-e Khwājah Ḥāfeẓ-e Shīrāzī*, ed., Sayyed Abu'l-Qāsem Injū'ī Shīrāzī, p. 289):

الا ای طوطی گویای اسرار مبادا خالیت شکر ز منقار

O parrot that speaks secrets [= the language of esotericism]

May your beak not be without sugar [=words sweet to the soul]

150. Out of the scores of manuscripts, only a few of which have been published, see, for example, Massumeh Farhad and Simon Rettig, *The Art of the Qur'an: Treasures from the Museum of Turkish and Islamic Arts* (Washington, DC, 2016) for alternately gold and black lines, pp. 282–83 from a Qur'an signed by Muḥammad b. Aḥmad al-Tabrizī in 979/1571–1572; pp. 286–87 for the Qur'an signed by the artist in Shawwāl 983/January 1576. In some early Iranian Qur'ans, the black Kufic script is vocalized with red dots, e.g., *ibid.*, a mid-eleventh century Khorasani volume, pp. 172–73.

151. Sophie Makariou, *Chefs d'oeuvre islamiques de l'Aga Khan Museum* (Paris, 2007).

152. Aimeé Froom in Laden Akbaria, Benoît Junod, and Alnoor Merchant, eds., *The Path of Princes: Masterpieces from the Aga Khan Museum Collection* (Lisbon, 2008), p. 130 cat. 44, reproduced p. 131. Inv. nr. 00653.

153. Contadini in Curatola, ed., *Art from the Islamic Civilization*, pp. 74–175 cat. 43 a: H. 6.8 cm, D. 6 cm; cat. 43 h: H. 3.4 cm, W. 2.6 cm; cat. 43 i: H. 2.6 cm, W. 2.6 cm. Previously in the Church of Ager, Catalonia, Spain, then Comtesse de Béhague Collection. Acquired 1981 by The al-Sabah Collection, inv. 1 HS a, h and i.

154. Curatola, ed., *Art from the Islamic Civilization*, p. 209 pl. 212, glass flask (LNS 114G).

155. Curatola, ed., *Art from the Islamic Civilization*, pl. 43.

156. A rock crystal king (*shāh*), The Al-Thani Collection, inv. nr. BELC 936. H. 6.1 cm. Max. W. 5.4 cm.

157. Rock crystal, carved. The Al-Thani Collection. Inv. BELC C34. L. back to muzzle: 7.4 cm. Christie's, *Art of the Islamic and Indian Worlds* (London, 2011), pp. 141–43, where characterized as "A Rare Fatimid Rock Crystal Lion."

158. Charles K. Wilkinson, "Heating and Cooking in Nishapur," *Metropolitan Museum of Art Bulletin* 11 (New York, 1944).

159. The al-Sabah Collection inv. LNS 119 HS said by the vendor to have come to light in Neyshābūr. H. 3.72 cm; D. 2.55 cm.

160. The al-Sabah Collection inv. LNS 371 HS.

H. 2.82 cm; W. 1.98 cm; base 1.76 cm. Bought at Christie's South Kensington, *Islamic and Oriental Works of Art* (London, 15 October 1998), p. lot 441.

161. Melikian-Chirvani, *Iranian Metalwork in the Islamic Period* (in preparation).

162. The al-Sabah Collection, inv. LNS 490 HS. H. 3.5 cm. W. 1.91 cm.

163. The al-Sabah Collection, inv. nr. LNS 499 HS. H. 5.95 cm. W. 3.18 cm.

164. The al-Sabah Collection, inv. nr. LNS 225 HS. H. 7.3 cm.

165. The al-Sabah Collection, inv. LNS 335 HS, H. 8.98 cm. D. 4.14 cm. In the *Qāmūs-e Juḡhrāfiyā'ī-e Afghanistan*, ed. Muḥammad Ḥakim Nahez (Kabul, 1338/1959), 115–16, Qādis is described as a thriving town in the highlands, in the midst of a fertile area, at an average altitude of 1,301 meters.

166. Glazed earthenware of the ninth century: see the fragment of a polychrome bowl painted with a horseman that was excavated at Tapeh Madraseh in Neyshābūr in Wilkinson, *Nishapur: Pottery of the Early Islamic Period*, p. 24 cat. 71 and plate. The metallic (gold or silver) horizontal strap from which pendants hang is a pleated chain with slanting links.

167. Glass: Jens Kröger, *Nishapur: Glass of the Early Islamic Period*, p. 43 cat. 6. p. 42. cat. 2. Metalwork: various examples, unpublished in private collections, including a silver dish worked in repoussé in the Iran-Zamin Collection. Pottery: examples in private possession.

168. The al-Sabah Collection, inv. nr. LNS 96 HS, H. 5.6 cm; D. 4.78 cm.

169. U. P. Pulatov in A. M. Belenitski, B. I. Iskandarov, V. G. Lukonin, and V. A. Suslov, eds., *Drevnosti Tajikistana* ["Tajikistan Antiquities"] (Dushanbe, 1985), cat. 822 for an example of Aḥmad's ewers found at Qal'a-i Qahqaha. An unsigned identical ewer (missing the handle) from Childukhtarān is reproduced under cat. nr. 821.

170. To be published in Melikian-Chirvani, *Iranian Metalwork in the Islamic Period* (in preparation).

171. Kurt Erdmann, "Neue Islamische Bergkristalle," *Ars Orientalis* 3 (1959), pp. 200–205. See p. 202 and pl. I fig. 3.

172. It did not occur to Erdmann that this piece was among a number of rock crystal objects that establish the existence of an Iranian school of making rock crystal vessels.

173. Erdmann, "Neue Islamische Bergkristalle," p. 202 and pl. 1 fig. 2. Erdmann speculated that it might have once belonged to the Gandersheim church. Characteristically enough, he illustrated two objects owned

by the Tehran dealer (not identified as such by him) A. Rabenou, in pls. 11 and 12, to which he only referred in n. 45, which is in effect a postscript. Plate 11 shows a kohl flask (*sormehdān*), which Erdmann did not recognize, and pl. 12 an inkwell (*davāt/khālestān*) which he called a "bowl" (in German "napf") even though the cylindrical cavity looks typical. The inkwell is carved with the typical Khorasani ibex profile stylized into a palmette seen on several rock crystal pieces published in these pages. Informed by the dealer that the two objects had been dug up in "Nishapur," Erdmann stated the fact without commenting on it.

174. Sotheby's, *Islamic Art* (Geneva, 1985), cat. 187, illustration facing the entry.

175. Once again, a piece dug up in Iran was regarded as something of a surprise, merely raising the possibility that it originated in Iran.

176. Anna Contadini, *Fatimid Art at the Victoria and Albert Museum* (London, 1998), color plate 2 and p. 36. Inv. M. 78–1910 H. 13 cm. Bought from a certain J. Hughes for the then huge amount of £120.

177. Few metal examples have been published so far. Two are illustrated in Assadullah Souren Melikian Chirvani, "The White Bronzes of Early Islamic Iran," *Metropolitan Museum Journal* 9 (New York, 1974), pp. 123–51. See pp. 131–32, reproduced fig. 10 p. 131. A number are published in this writer's *Iranian Metalwork in the Islamic Period*. Among glass examples, an hexagonal blue glass kohl flask appeared in Christie's, *Art of the Islamic and Indian Worlds* (London, 2006), p. 19 cat. 17 where it was attributed to northeast Iran, with an estimated date of the ninth/tenth century, probably too late by a century.

178. *Divān-e 'Oṭmān-e Mokhtārī*, p. 154 couplet 3.

179. Shalem, "Fountains of Light," l.c. p. 5 and p. 10, n. 44.

180. Abu'l-Qāsem Maḥmūd b. 'Omar al-Zamakhsharī [known as Jār Allāh Zamakhsharī], *Pishrow-e Adab yā Muqaddimat al-Adab*, ed. Sayyed Moḥammad-Kāẓem Emām 2 vols. (Tehran, 1342/1963) vol. I, p. 147.

181. See n. 102. I have left out the rock crystal cup in the Cincinnati Art Museum considered to be a modern forgery by Oscar Muscarella, as Michael Vickers reminded readers in his 1996 article in the *Journal of the Royal Asiatic Society*. I have not seen, let alone handled the piece, a prerequisite for venturing an opinion about authenticity. On the face of it, Muscarella's verdict would appear to find support 1) in the unusual association of ribbing in one area with a figural scene in the other; and 2) in the presence of an engraved border of formalized vegetal ornament on the horizontal

moulding separating the two levels of the cup which one might expect to be plain. The very presence of such a moulding has no precedent on the bronze sheet models of the cup.

182. On the symbolism of wine as sacrificial blood, see Assadullah Souren Melikian-Chirvani, "The Wine Bull and the Magian Master," in *Recurrent Patterns in Iranian Religions from Mazdaism to Sufism: Studia Iranica. Cahier 11* (Paris, 1992), pp. 101–34. See pp. 108–9, 121; 132. Wine is called in Persian literature "the blood of the vine" (*khūn-e raz*). The sacrificial symbolism of wine in Iran is graphically illustrated by vessels in the shape of bulls, birds, etc. pouring out the wine. See on this subject Melikian-Chirvani, "The Iranian Wine Horn," l.c. pp. 94–97. Also, Assadullah Souren Melikian-Chirvani, "Les taureaux à vin et les cornes à boire de l'Iran islamique," *Histoire et Cultes de l'Asie Centrale pré-islamique*, ed. Paul Bernard and Frantz Grenet (Paris, 1991), pp. 101–25 and 17 fig. 5.

183. Abū Reyḥān Muḥammad b. Aḥmad al-Bīrūnī, [*Kitāb*] *al-Jamāhir fī'l-Jawāhir*, ed. Yūsuf al-Hādī (Tehran, 1374/1414 H.q./1995), p. 294.

«والبور أنفس الجواهر التي تعمل منها الاواني لولا تبيّله و تسميه الهند يتك و فيه فضل صلاحية يقطع بها كثير من الجواهر و يقوم لاجلها مقام فولاذ الحديد حتى تنفد منه النار»

184. Noted by Moḥammad 'Alī Emāmī Shūshtarī, *Farhang-e Vāzhehā-ye Fārsī dar Zabān-e 'Arabī* [Dictionary of Persian Nouns in Arabic] (Tehran, 1347/1968), p. 93. The couplet is cited after the Cairo edition of 1372/1953, p. 270. It proves that the early pronunciation of *bolūr* in Classical Arabic was close to Persian, not *billawr* as later dictionaries have it. In the couplet it rhymes with *ma'mūr* and therefore had to be *bollūr*, with a geminated *lām* (L). This is due to the spontaneous tendency of Arabic to emphasize loanwords from Persian, as indeed from all other foreign languages.

185. *Divān-e Qaṭrān Tabrīzī*, ed., Badī'ol-Zamān Forūzānfar, Zabīḥollāh Ṣafā, and Sayyed Ḥasan Taqīzādeh, 2nd ed. (Tehran, 1362/1983), p. 36.