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**FOURTEENTH CENTURY FINE GLAZED WARES
PRODUCED IN THE IRANIAN WORLD,¹ AND
COMPARISONS WITH CONTEMPORARY ONES
FROM THE GOLDEN HORDE AND MAMLŪK
SYRIA/EGYPT**

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Thesis submitted for the degree of PhD in September 2011

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¹ This includes present-day Iraq.

Declaration

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Rosalind Haddon

Rosalind Anne Wade Haddon

September 2011

Abstract: Fourteenth century glazed finewares produced in the Iranian world and comparisons with contemporary ones from the Golden Horde and Mamlūk Syria/Egypt

This thesis explores the designs and influences on fine tablewares manufactured in Īlkhānid Iran, the Jochid or Golden Horde territories and Mamlūk Syria/Egypt, and it attempts to identify the differences between them, drawing on archaeological evidence wheresoever possible. Despite the pioneering work of Gerald Reitlinger and colleagues from the early 1930s, and many others, much of our knowledge has been dealer derived. Politics and international disagreements have played a large part in frustrating the pursuit of scientific excavations and disseminating knowledge. Information from the former Soviet Union, where most of the Golden Horde sites are located, was difficult to acquire until relatively recently. Fortunately the power of the internet and the relative ease of travel have greatly facilitated such a study in the twenty-first century. The first volume of this thesis is divided into seven sections: Chapter 1 is the introduction; Chapter 2 explores the history and sources which throw some light on the economic activity of the Īlkhānids and their trading contacts with the other states; Chapter 3 presents the Īlkhānid archaeological evidence; Chapter 4 lists the Golden Horde and Mamlūk archaeological evidence; Chapter 5 defines the diagnostic shapes, materials and decorative motifs which are used to identify these differences; Chapter 6 discusses the limited knowledge of production, organisation and utility; and Chapter 7 presents the conclusions. Figures illustrating these chapters follow the text of each one. The second volume is a catalogue of all the different types under discussion, redefining these groups based on previous publications in the light of recent archaeological discoveries

and two appendices: A is an illustrated list of specific motifs; B is a commentary on some of the extremes of scientific analyses. This research is on-going and subject to revisions and adjustments with each new discovery; it would be foolish to think otherwise.

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- Fig. 4.26 Thirteenth century Longquan celadon bowl made in Zhejiang province and exported to the Philippines. V&A collection, inv no FE 47-1975. Diameter 12.1cm; height 5.6m. Formerly in the collection of Sir John Addis. Image from V&A website.
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- Fig. 6.7 Enthronement scene – illustration from the Diez Albums, early 14th century Iran, possibly Tabriz. Ink, colours and gold on paper. National Library, Berlin. Diez A fol 70, S22. Image from internet.

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I dedicate this thesis to my husband William and son Rupert who have endured this long journey with grace and patience.

A Note on Transliteration and Dating

Arabic, Turkish, Mongol and Persian names and terms are spelt and transliterated according to the conventions used in the *Encyclopaedia of Islam Three*. The names of historical cities and regions are transliterated, but diacriticals are omitted from the names of cities and regions that appear in modern gazetteers such as Tabriz, Khurasan and Nishapur, as they are for modern cities like Aragh, Sultanabad, Bojnurd and Tehran. For some city names, e.g. Beirut, that are in common usage and do not conform to a 'correct' transliteration, the rules have been ignored.

The years and centuries are given according to the Common Era with *Hijri* dates added in the case of historical events, or manuscripts and objects with dated inscriptions.

To differentiate between references to the illustrations in Volume 1 and the objects in the Catalogue in Volume 2, the first are referred to as figures (fig. 1 etc) while the catalogue entries are referred to in the text according to their type number (eg no 1.1.1 is the first image in the Īlkhānid coloured-ground grey relief category – Golden Horde examples start with the number **2**, and Mamlūk with **3**).

Abbreviations for Journals and Frequently Used Texts

<i>ADAJ</i>	<i>Annual of the Department of Antiquities of Jordan</i>
<i>AI</i>	<i>Annales Islamogiques</i>
<i>AJA</i>	<i>American Journal of Archaeology</i>
<i>AMI</i>	<i>Archaeologische Mitteilungen aus Iran und Turan</i>
<i>BEO</i>	<i>Bulletin d'Etudes Orientales</i>
<i>BIFAO</i>	<i>Bulletin de l'institut français d'archéologie orientale</i>
<i>BSOAS</i>	<i>Bulletin of the School of Oriental and African Studies</i>
<i>CAJ</i>	<i>Central Asiatic Journal</i>
<i>CHEg</i>	<i>Cambridge History of Egypt</i>
<i>CHIr</i>	<i>Cambridge History of Iran</i>
<i>EI²</i>	<i>Encyclopaedia of Islam, Second edition</i>
<i>EIP</i>	<i>Early Islamic Pottery, Arthur Lane, London 1947</i>
<i>EIr</i>	<i>Encyclopaedia Iranica</i>
<i>ESI</i>	<i>Excavations and Surveys in Israel</i>
<i>GJ</i>	<i>Geographical Journal</i>
<i>HJAS</i>	<i>Harvard Journal of Asiatic Studies</i>
<i>IEJ</i>	<i>Israel Exploration Journal</i>
<i>IS</i>	<i>Iranian Studies</i>
<i>JA</i>	<i>Journal Asiatique</i>
<i>JARCE</i>	<i>Journal of the American Research Institute in Egypt</i>
<i>JESHO</i>	<i>Journal of the Economic and Social History of the Orient</i>
<i>JRAS</i>	<i>Journal of the Royal Asiatic Society</i>
<i>JRGS</i>	<i>Journal of the Royal Geographic Society</i>
<i>KSIA</i>	<i>Short Reports from the Institute of Archaeology (Russian)</i>
<i>LIP</i>	<i>Later Islamic Pottery, Arthur Lane, London 1957</i>
<i>MSR</i>	<i>Mamluk Studies Review</i>
<i>PAM</i>	<i>Polish Archaeology in the Mediterranean</i>
<i>PSAS</i>	<i>Proceedings of the Seminar for Arabian Studies</i>
<i>RA</i>	<i>Rossiiskaia Arkheologiia</i>
<i>SA</i>	<i>Sovetskaia Arkheologiia</i>
<i>TOCS</i>	<i>Transactions of the Oriental Ceramic Society</i>

Abbreviations for Institutions

Ashmolean	Ashmolean Museum, Oxford
Asian Art Museum	Asian Art Museum of San Francisco
Astrakhan	Astrakhan State Historical and Architectural Museum
Azov Museum	Azov Museum of Local Lore
BM	British Museum, London
CAIS	Circle of Ancient Iranian Studies, SOAS
DAI excavations	Deutsche Archäologische Institut excavations
David Collection	David Collection, Copenhagen
Fitzwilliam	Fitzwilliam Museum, Cambridge
Freer Gallery	Freer Gallery of Art, Washington DC
GAMC	Gayer Anderson Museum, Cairo
ICHTO	Iran Cultural Heritage and Tourism Organisation
IsMEO	Istituto Italiano per il Medio ed Estremo Oriente, National Museum of Oriental Art, Rome
Kazan Museum	State Museum, Kazan, Russian Tartarstan
Kuwait Museum	Dār al-Athār al-Islāmiyyah, Kuwait
LACMA	Los Angeles County Museum of Art
Louvre	Louvre Museum, Paris
MFA Boston	Museum of Fine Arts, Boston
Guimet Paris	Musée Guimet, Paris
MIA	Museum of Islamic Art, Cairo
Doha Museum	Museum of Islamic Art, Doha
Berlin Museum	Museum für Islamische Kunst, Berlin
MMA	Metropolitan Museum of Art, New York
Nukus Museum	National Museum, Nukus
Reza‘Abbāsi	Reza‘Abbāsi Museum, Tehran
RLAHA	Research Laboratory for Archaeology and History of Art, Oxford
ROM	Royal Ontario Museum, Canada
State Hermitage	State Hermitage Museum, St Petersburg
Tehran Islamic Museum	Tehran National Museum, Islamic Section
Timur Museum	State Museum of Timurid History, Tashkent
V&A	Victoria and Albert Museum, London

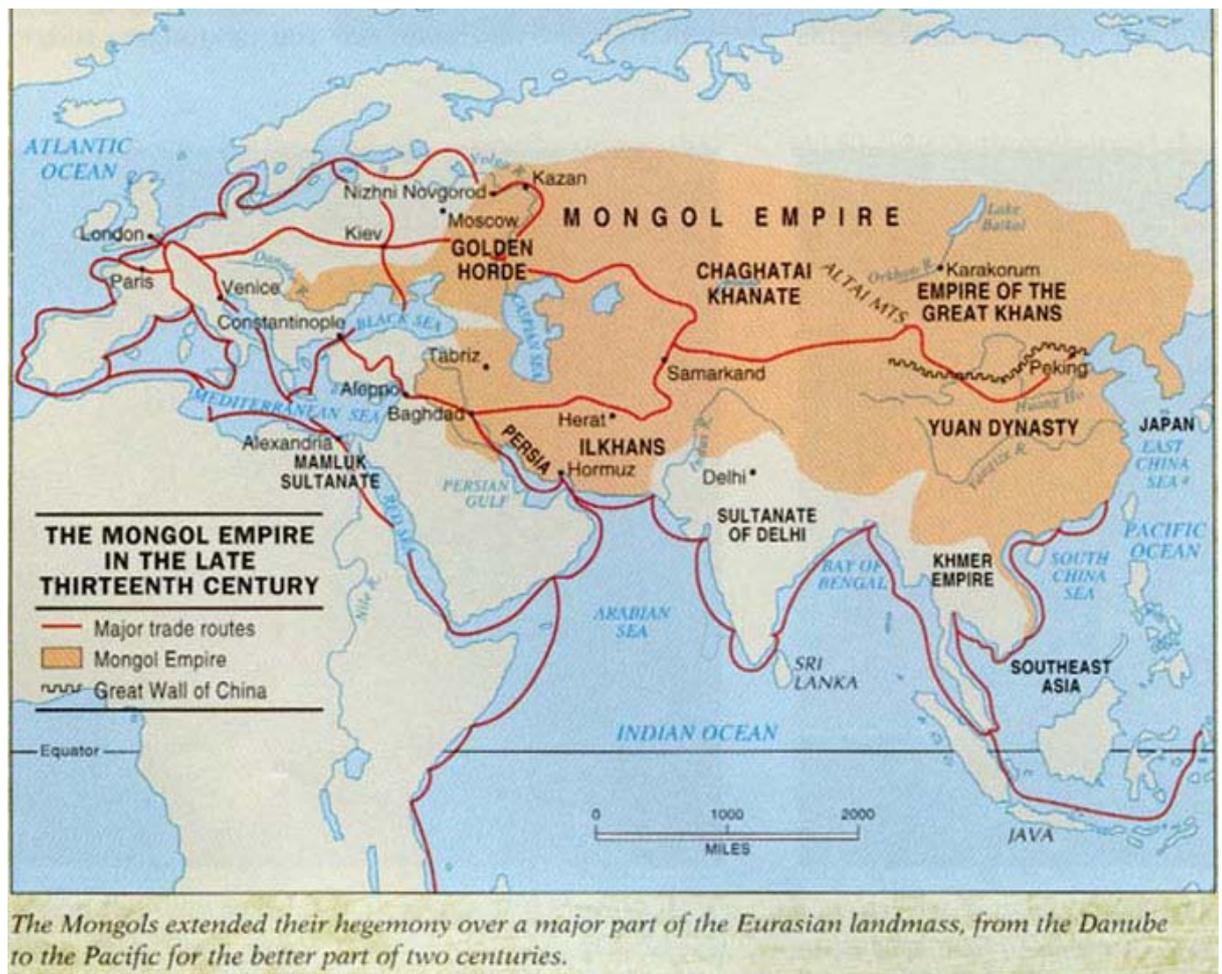
GLOSSARY

<i>amīr</i>	commander or prince
<i>arg</i>	inner fortress or citadel of a walled city
<i>atabeg</i>	local ruler
<i>barīd</i>	official government sponsored postal system which provides horses and lodging for messengers linking the government centres
<i>boyar</i>	high ranking administrator in feudal Russia, at a level below a prince
<i>chillakhāna</i>	Ṣūfī assembly hall
<i>chīnīkhāna</i>	china house
<i>fidāwī</i>	assassin
<i>funduq/ fanādiq</i>	hotel/hotels or residential warehouses for foreign merchants in Mamlūk cities
<i>gyulabdan</i>	rosewater bowl exclusive to the Golden Horde
<i>īnjū</i>	royal estates
<i>īwān</i>	monumental arched recess
<i>kārkhāna</i>	state workshops (probably referring to textiles, metalwork and armaments – not ceramics)
<i>kāshī</i> (Per)	tiles
<i>kāshī</i> (Rus)	semi-faïence - an alkaline glazed, siliceous-paste body made of approximately 8 parts ground quartz, 1 part fritted glass and one part white clay
<i>kāshānī</i> (Per)	from Kashan; or a siliceous-paste; or tile mosaic
<i>khānaqāh</i>	Ṣūfī hospice or place for their gatherings
<i>kitābkhāna</i>	scriptorium
<i>kohandiz</i>	citadel
<i>lajvardīna</i>	lapis lazulae or in the context of Iranian ceramics a technical term for cobalt glazed, enamelled and gilded with gold leaf - sometimes the ground is turquoise or white
<i>mamlaka/mamālik</i>	governorate/governorates – administrative divisions in the Mamlūk period
<i>mīhrāb</i>	prayer niche oriented to Mecca
<i>mīnā`ī</i>	pre-Mongol style of enamelled ceramics, usually on a white ground, occasionally turquoise
<i>muhtasib</i>	official government market inspector
<i>nā`ib</i>	governor
<i>noyan</i>	great <i>amīr</i> belonging to a hereditary nobility in the Īlkhānate

<i>orda</i>	mobile headquarters of the ruling khān
<i>ortaq</i>	trading partnership
<i>pīshṭāq</i>	monumental entrance
<i>qashānī</i> (Ar)	siliceous-paste body ² or tile mosaic tiles prayer niche in the direction of Mecca winter quarters
<i>qāshī</i> (Ar)	
<i>qibla</i>	
<i>qishlāq</i>	
<i>saggar</i>	individual earthenware casing to protect fine ceramics in the firing process
<i>sepayā</i>	trivet (usually tripod) which serves as a spacer between pottery bowls in a kiln
<i>sgraffito</i>	incised designs cut through slip to the clay body to reveal different colours when glazed and fired
<i>shahīd-gāh</i>	martyrs' cemetery
<i>sherbēt-khāna</i>	kitchen for making sweetmeats
<i>sikka</i>	right to strike coins in one's name
<i>ṣīnī</i>	generic for fine imported tableware or Chinese ceramics
<i>Ṣūfī</i>	adherent of a mystical, esoteric branch of Islam
<i>tamghā</i>	tax or ownership mark
<i>tepeh</i>	settlement mound or tell
<i>tumen</i>	a unit of a thousand or a military division
<i>ulus</i>	coalition of tribal groups under a ruler, such as the Īlkhānate
<i>waqfiyya</i>	endowment deed
<i>yarghu</i>	court of inquiry or interrogation – Mongol summer quarters
<i>yailāq</i>	

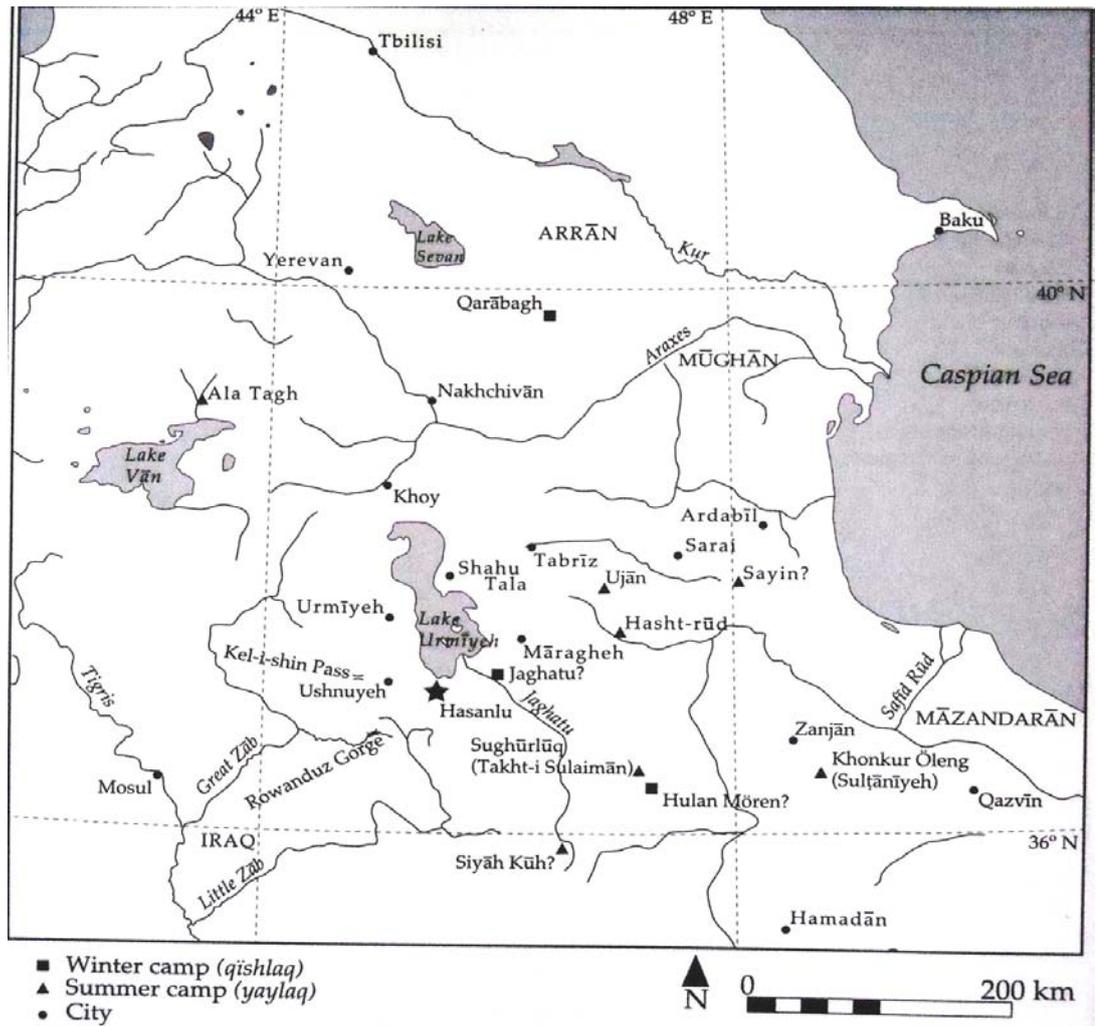
² See Chapter 5 for discussion on this term.

Maps



Map 1 – The Mongol empire.³

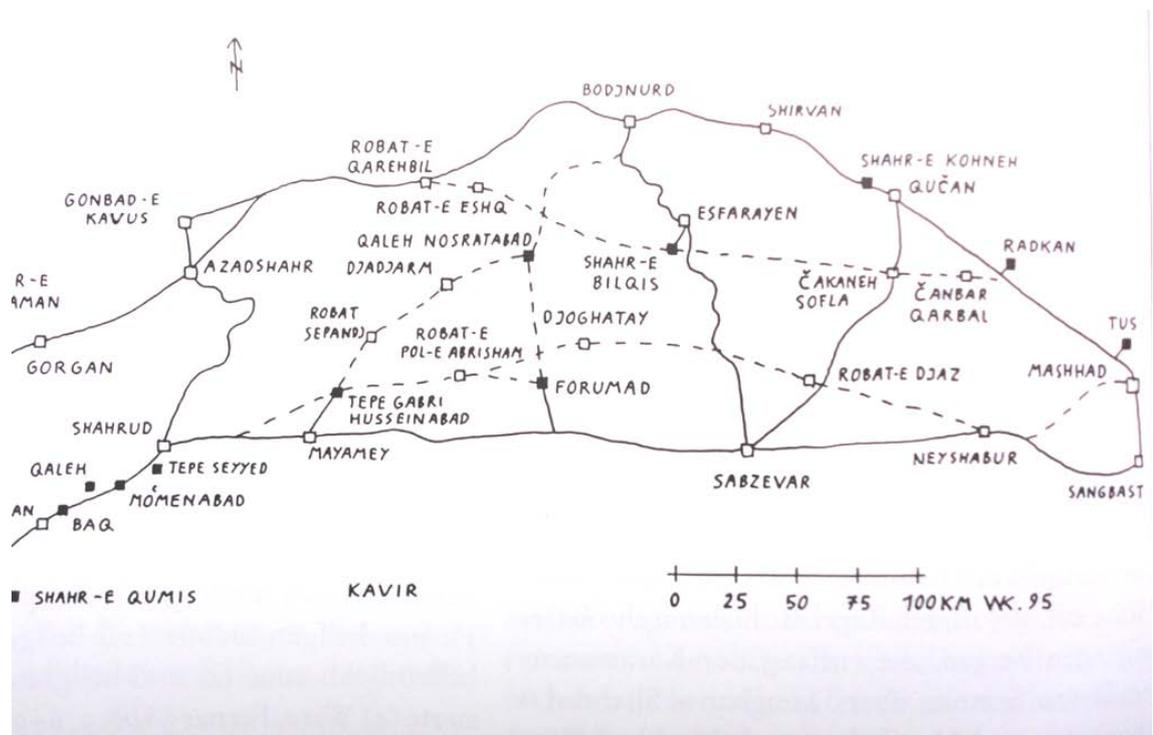
³ <http://aulosinternet.wikispaces.com/Maps>.



Map 2 – Location of Hasanlū *tepeh*, after Danti 2004.

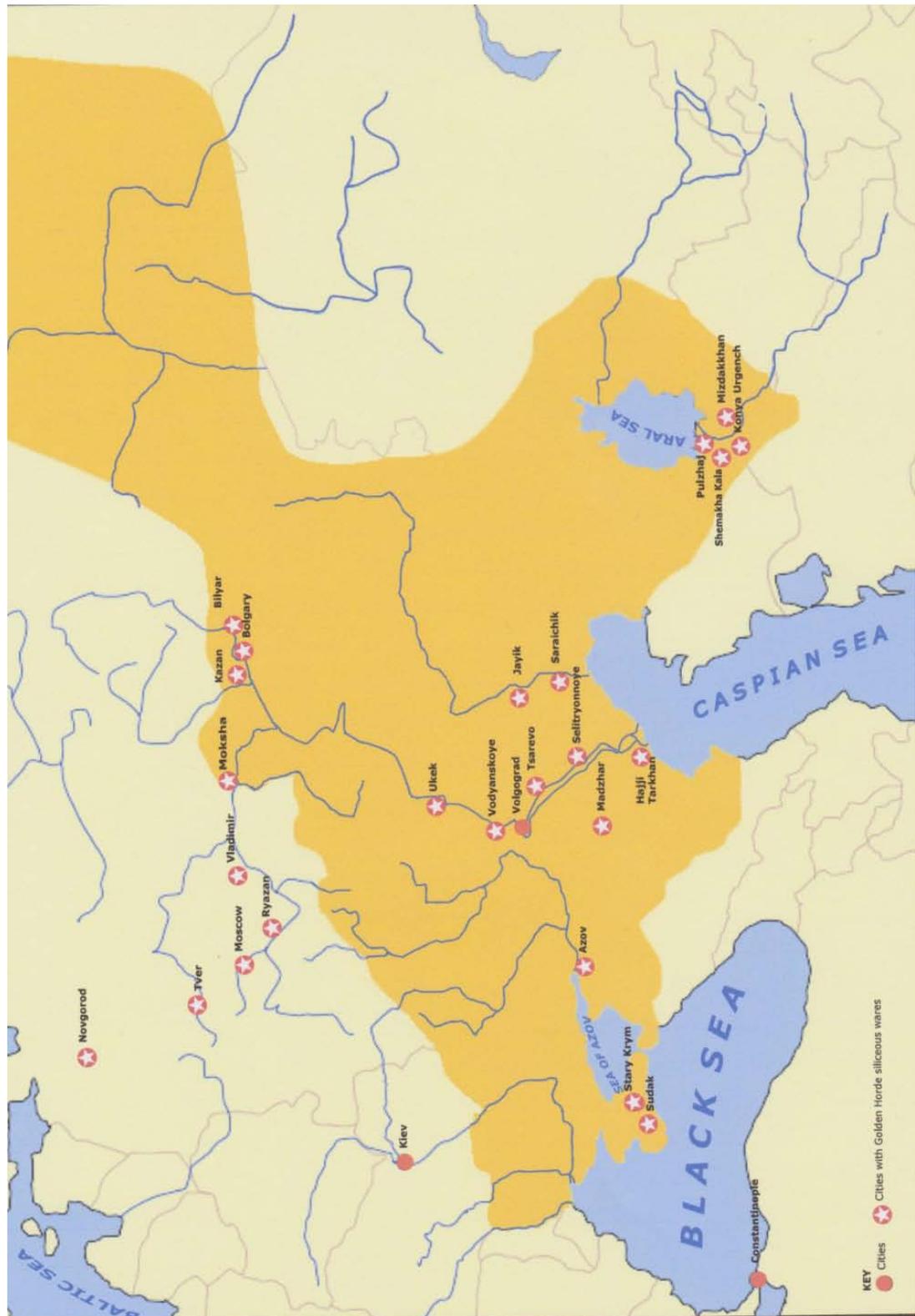


Map 3. Satellite map of Qays/Kish Island, accessed 24.6.2011, after <http://en.wikipedia.org/wiki/File:Kish-island-Persian-Gulf.jpg>.

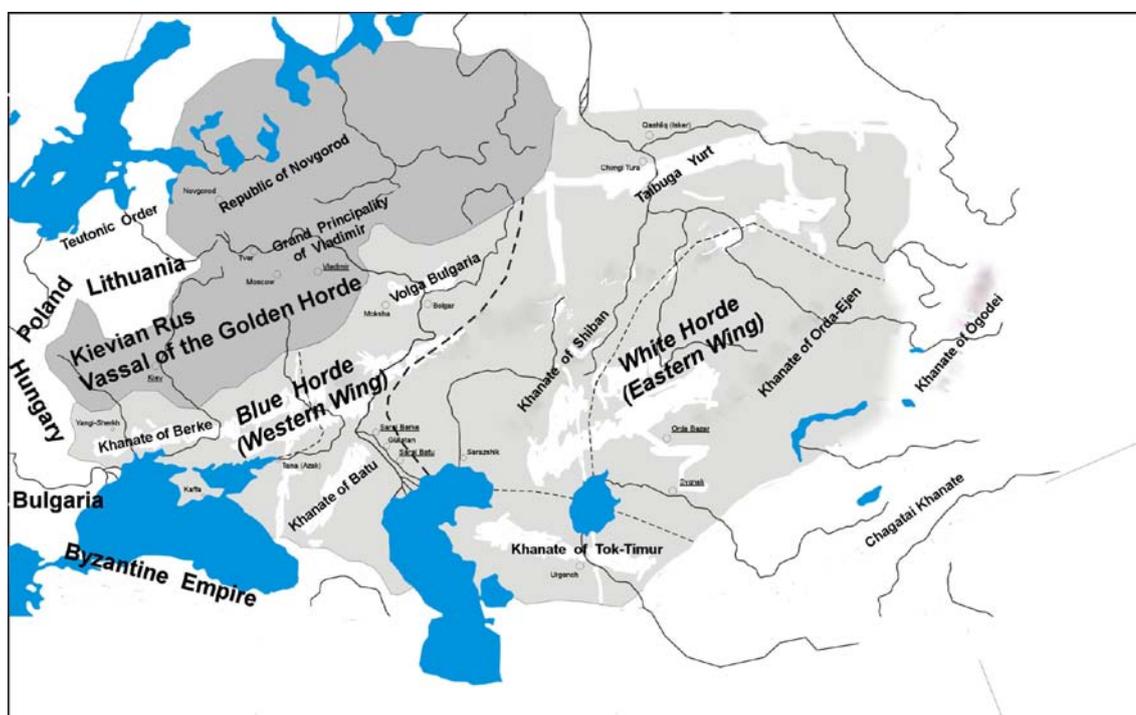


Map 4 – A sketch map compiled by Wolfram Kleiss of the sites he surveyed in western Khurasan.⁴ Note he did not visit either Aq-Qaleh or Khosroshīr.

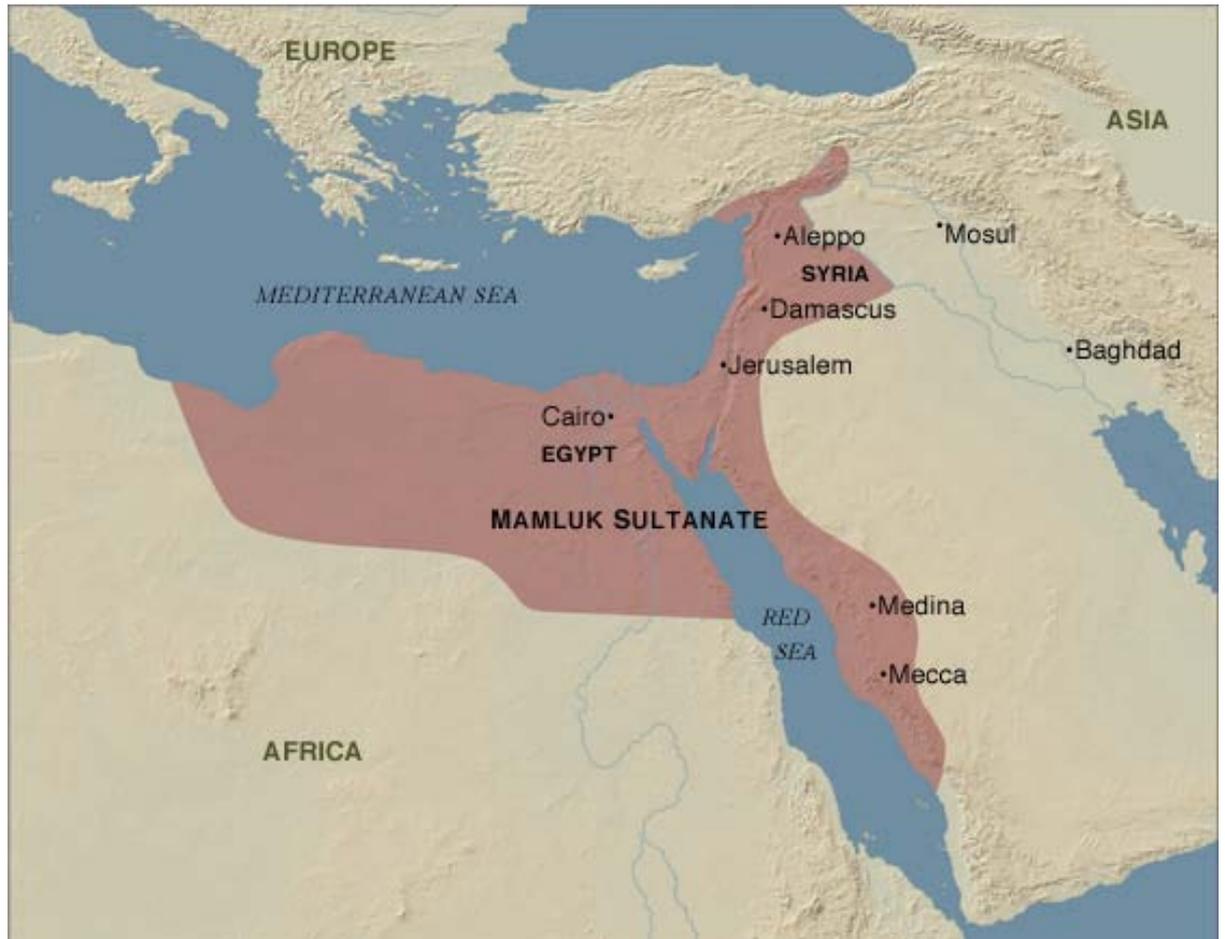
⁴ Kleiss (1995-96), 370.



Map 5 –Map of the Golden Horde centres, with findspots for siliceous wares indicated. The yellow shaded area marks the extent of Golden Horde territories.

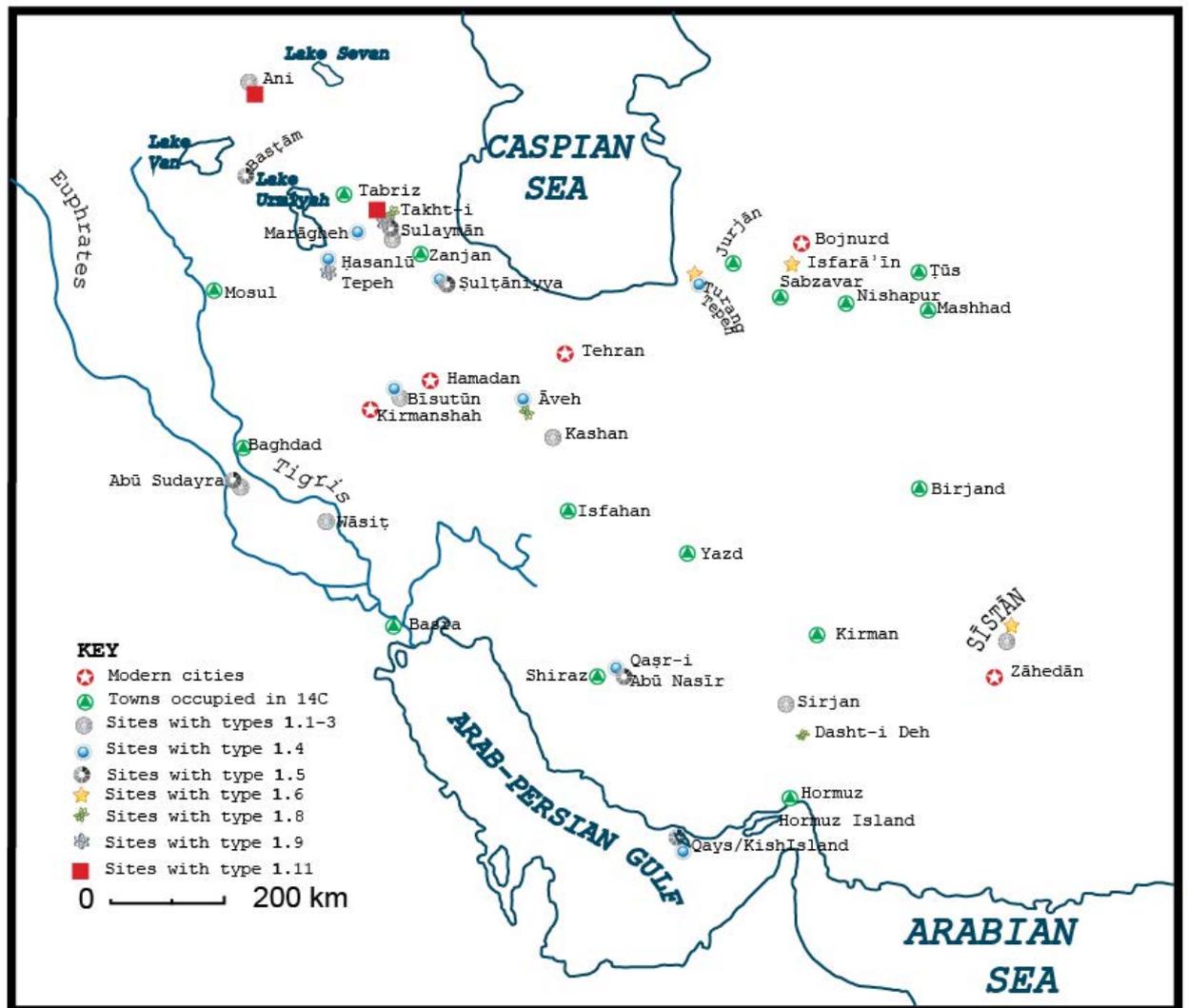


Map 6 – Expanded map of the Golden Horde sites with political boundaries.



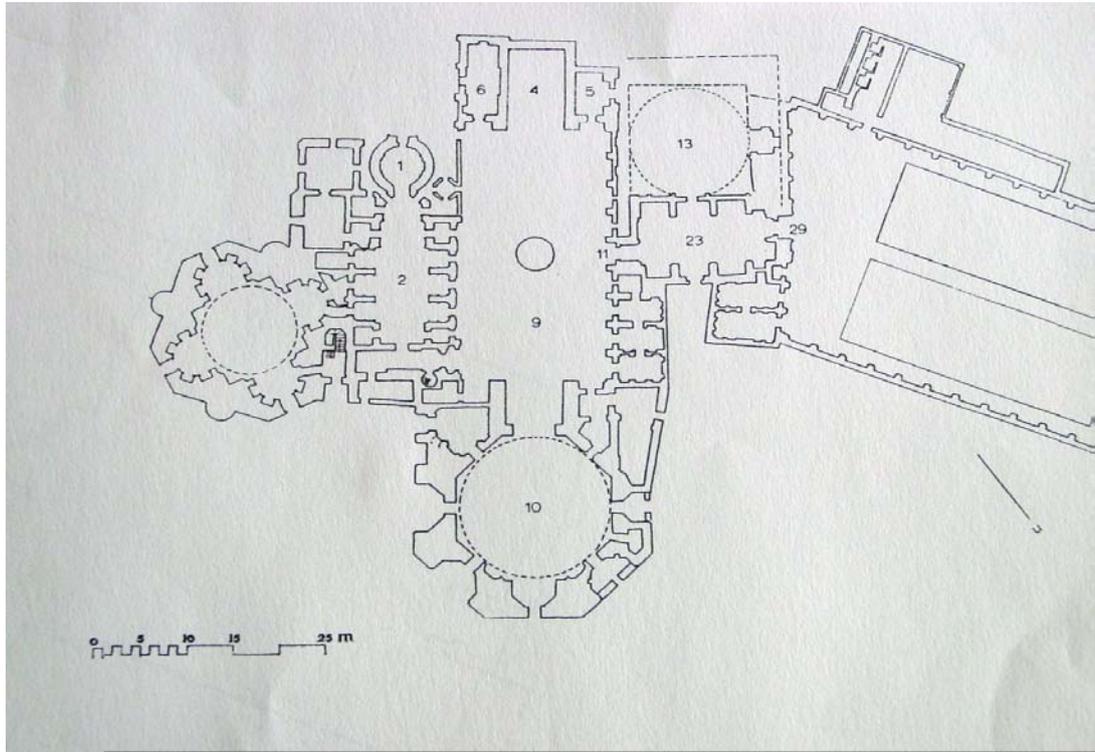
Map 7 – Map of the Mamlük sultanate in the fourteenth century.⁵

⁵ http://www.metmuseum.org/toah/hd/maml/hd_maml.htm.

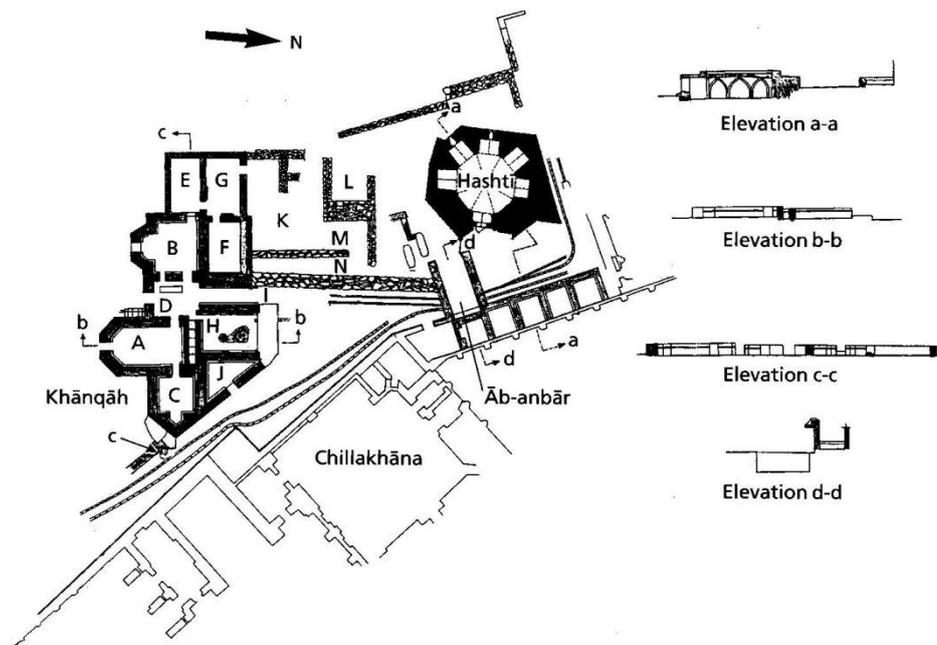


Map 8 - Distribution of Ilkhanid wares.

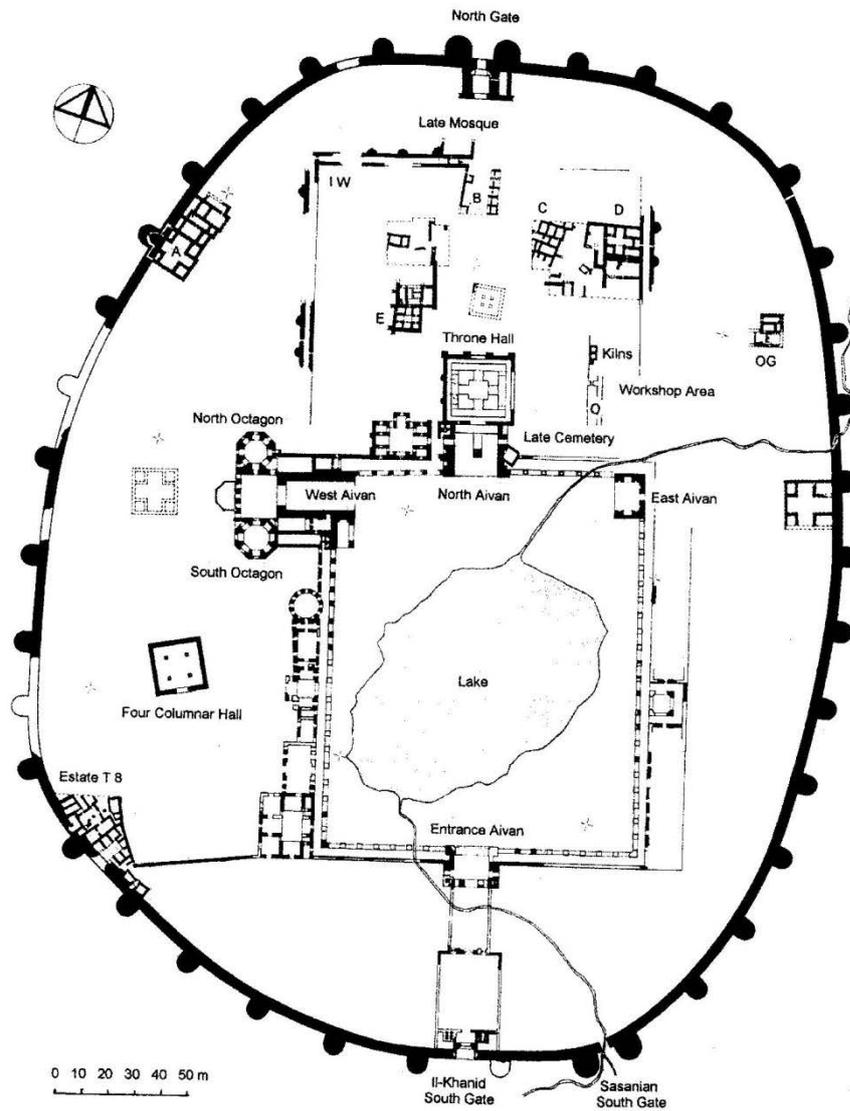
Plans



Plan 3.1 – A ground plan of Shaykh Ṣafī-al-dīn Ishāq's shrine complex at Ardabīl. Room 13 is the domeless *chillakhāna*; the *chīnikhāna* is the domed building on east side of room 2. After Weaver 1970.

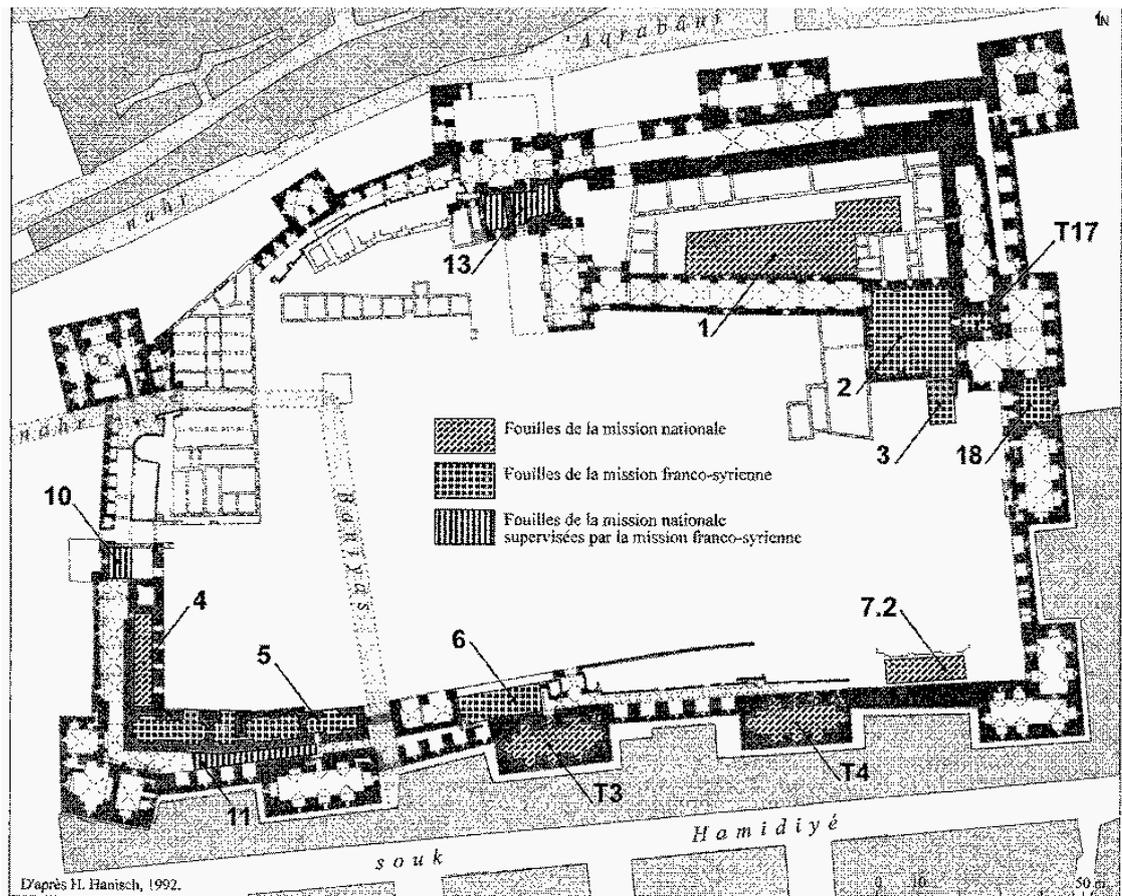


Plan 3.2 - Maḥmūd Mousavī's excavations to the west of the shrine. After Mousavī 2002.



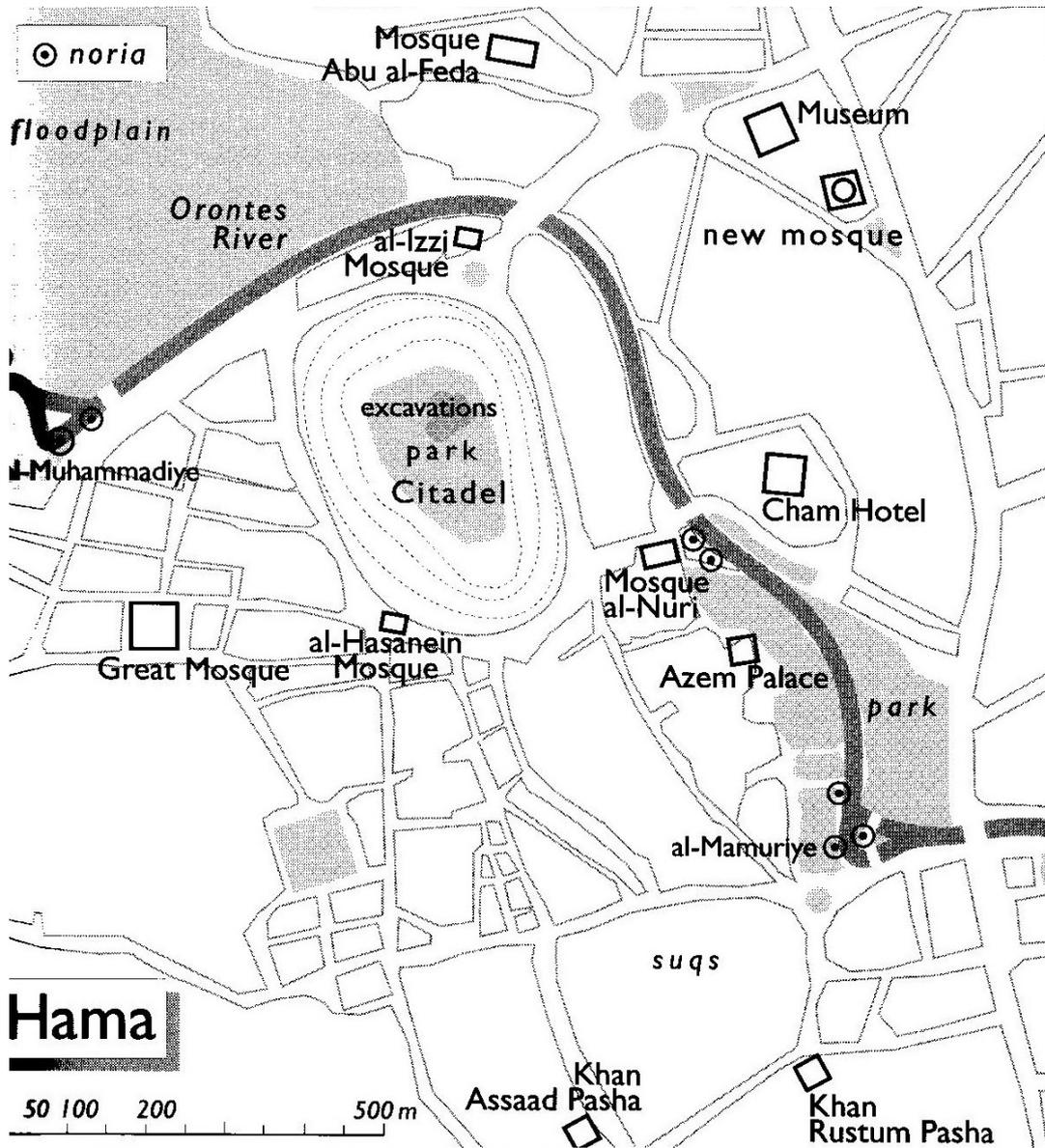
13. Takht-i Sulayman/Sughūrlūq, plan of the site in the Ilkhanid period. A: 'kiosk' A; B: bazaar; C: small houses; D: four-*īwān* ('potter's house'); E: four-*īwān* house (PC/PD); O: potter's refuse pit; IW: ruined inner wall of Sasanian sanctuary; OG: reused Sasanian house (drawing by D. Huff)

Plan 3.3 - Takht-i Sulaymān, after Huff 2006.



Pl. 3 : Situation des zones traitées

Plan 4.1 – The Damascus citadel, after H Hanisch 1992.



Plan 4.2 - Map of Ḥamā, after Burns 2009.

1. INTRODUCTION

The fourteenth century in the Middle East is dominated by Turco-Mongol rulers who all sought to legitimise their rule and demonstrate that their conversion to Islam was genuine and not politically motivated. This involved patronage, reorganisation of many institutions and commissioning of religious foundations on a grand scale. With control of the land routes from China to the Mediterranean, and much of the agricultural land, the stage was set for the state and senior administrators to harvest vast profits from trade through taxation and agricultural surplus to finance this activity. All these institutions needed furnishings, utensils, and functionaries to operate them. This called for mass production on a scale hitherto unknown and created urban centres and a population with a need for less sumptuous materials than their rulers and the upper echelons of society. This ease of communication meant that ideas and materials were exchanged with a result that it became difficult to identify the provenance of some everyday objects like tablewares. The primary objective of this study is to identify these various products and establish possible manufacturing centres, laying the foundations for future studies.

1.1. THE TOPIC

The inspiration for this topic was an underglaze-painted blue and black on white siliceous-paste bowl in the Asian Art Museum of San Francisco's collection (Catalogue number 1.6.1 in Volume 2).⁶ It was labelled 'Syria or Iran' – initial research indicated that it was dealer bought, and originally in Avery Brundage's collection. There was no record of its origins in Brundage's correspondence held by the museum, but I noted that he purchased most of the Persian artefacts from the New York dealers Hassan Khan

⁶ Wade Haddon (2004), 155-57, figs 6-8.

Monif ⁷ and Mehdi Mahboubian, both of whom had passed away. However, I discovered that Mehdi's brother, Houshang, was very much alive and still dealing in London, where I first met him in 1999. He thought that either he or his brother, might have sold it to Brundage. He was adamant that it was a Khurasani piece and likely to have come from somewhere near Nishapur. However, other scholars and dealers had differing opinions and views on the topic. Pope did not include any examples in the *Survey*,⁸ I suspect either because he could not place them, or he thought that they were Mamlūk. With these differing opinions it became an obsession to attempt to establish what was made where in the fourteenth century and to abandon these broad, meaningless labels. Step one was to study the collections to see if they gave away any clues.

Gerald Reitlinger published the first study of related pieces and called them 'Varāmīn' or 'interim wares', the presumed next generation of the Īlkhānid so-called Sultanabad wares.⁹ Most of these were later pieces, now identified as Timurid, and he did not include any similar fourteenth century examples that he already held in his collection - for example Ashmolean Museum, Oxford inventory number 1978.1600.¹⁰ 'Sultanabad' was a name coined by Kelekian in the early twentieth century,¹¹ and described in detail by both Reitlinger¹² and Lane.¹³ Although Reitlinger was principally a collector he participated in and helped finance some excavations and surveys in Iraq in the early 1930s¹⁴ and travelled extensively in Syria, Iran, Iraq and Turkey.¹⁵ Judging

⁷ *Ibid.*, footnote 25; see also Jenkins-Madina (2000), 73.

⁸ Pope and Ackerman (1938-39).

⁹ Reitlinger (1938).

¹⁰ Allan (1981), 115, #325. This was acquired in 1936 from Beghian; formerly Reitlinger's NE 416 – his record index card styles this bowl as 'Varamin'.

¹¹ Kelekian (1910).

¹² Reitlinger (1946), 25-34.

¹³ Lane (1957), 10-13.

¹⁴ Reitlinger (1935).

¹⁵ Reitlinger (1932).

from his record cards and publications he had an excellent grasp of the variety available, and his great legacy is a collection that illustrates the breadth of the potters' output and the wide variety of decorative motifs in their repertoires.

This collection is now housed in the Ashmolean Museum, Oxford and his brother Henry, who also collected Islamic artefacts amongst many other things, is in the Fitzwilliam Museum, Cambridge.¹⁶ Unfortunately few of these vessels have a known provenance – as is the case for many contemporary pieces in other national collections such as the British Museum (BM) and the Victoria and Albert Museum (V&A).

1.2. OTHER COLLECTIONS

Since the 1930s several important collections have been established and published, adding to the corpus of this material.¹⁷ However, relatively few pieces are of known provenance or were discovered through controlled archaeology.¹⁸ In recent years archaeologists have been more active in the field, but are slow to publish their finds. My principal research aim has been to trace as many examples of these wares with a secure archaeological provenance, whether complete or fragmentary, as is possible.

Reitlinger's enthusiasm, coupled with the interest created by Pope's *Survey*¹⁹ following the 1931 International Exhibition of Persian Art held in London, effectively created a larger market for collecting. It is regrettable that Iranian nationals were granted commercial permits to 'excavate' numerous sites well into the 1960s. They only gave vague indications as to their find spots, and are responsible for assigning newer,

¹⁶ Reitlinger (1938), 155-178; Allan (1981); Sotheby's (1986). I am most grateful to James Allan, and more recently Oliver Watson and Alessandra Cereda at the Ashmolean, and Robin Crichton, Julia Poole, Antony Lin and Rebecca Bridgman at the Fitzwilliam for giving me access to these collections whenever requested.

¹⁷ Lane (1957); Fehérvári (1973); Grube (1976); Soustiel (1985); Watson (1988), 139-286; Rogers (1989), 255-70; Fehérvári (2000); Folsach (1990); idem (2001); Watson (2004); and numerous exhibition and museum catalogues, such as Pinder Wilson (1969); Mahboubian (1971); Hayward (1976); Louisiana Museum (1987); Atıl (1990); Louvre (2001), to name but a few.

¹⁸ See Chapter 3 for a discussion.

¹⁹ Pope and Ackerman (1938-1939).

nineteenth century towns, such as Sultanabad and Bojnurd, as the provenance for some of these vessels. In the introduction to a catalogue for an exhibition in Austin, Texas curated by Mehdi Mahboubian he claims that his father, Benyamin:

*“...was responsible for practically all early excavations of Islamic sites, such as Bezineh Gerd, Farahan, Soltanabad, Saveh, Aveh, Ray, Yaskand, etc. Here in this collection we can see objects he found probably before any of us was born.”*²⁰

Many of the pieces published in this catalogue are now in the Reza ‘Abbāsi Museum, Tehran. He ignores the work of other ‘excavators’ such as Charles Vignier’s brother and Hagop Kevorkian at Rayy in the early 1900s,²¹ and dealers such as Dikran Kelekian who had created a market for these ceramics.²²

According to Reitlinger’s card index he never bought from the Mahboubians. Avery Brundage visited their gallery in Tehran,²³ which is now closed.²⁴ It may well be that their prices were too high for Reitlinger, who is well-known to have delighted in paying as little as possible for each item, and was happy to collect incomplete objects. It was the decoration that was of paramount importance to him.

1.3. MATERIALS

The ceramics under discussion are the finer quality, alkaline-glazed tablewares and containers for drugs, herbs, and spices, produced from the late thirteenth century and most probably throughout the fourteenth century, with their provincial imitations. They are classified in the literature as ‘Sultanabad’ (the finer examples are believed to have been manufactured in Kashan), ‘Bojnurd/Juvayn’ and ‘Varāmīn’ wares. Varāmīn was a

²⁰ Mahboubian (1971), no page numbers for introduction.

²¹ Fry and Vignier (1914), 212. It is of course possible he was working with Vignier; Jenkins-Madina (2000), 73, fig. 2.

²² *Ibid.*, 73ff.

²³ Archives of the Asian Art Museum, and Kambiz Mahboubian reported that Brundage visited the Tehran gallery twice, in 1964 and 1966, and his purchases were exported to the US. I am grateful to Forrest McGill, Chief Curator of AAMSF, for permitting me access to the archives when I was volunteering in the museum in 1998-1999.

²⁴ Conversation with Houshang and Kambiz, November 2006.

provenance coined by the dealers for any piece that could not be placed within the ‘usual categories’.²⁵ Reitlinger reports that there was no evidence for kilns in Varāmīn and that buyers should beware and that there was certainly no uniformity in the examples he examined.²⁶ Most of these glazed wares are made with a siliceous-paste body, commonly referred to as fritware, and more recently as stonepaste.²⁷ There is an early fourteenth century treatise that outlines their physical makeup, written by a colleague of the vizir and court historian, Rashīd al-Dīn Fazl Allāh Hamadānī (d 718/1318), namely Abū’l Qāsim. He was a member of a renowned Kashan potting family.²⁸ His work is a synthesis of earlier works, and Yves Porter has demonstrated that later authors also included these ceramic ‘recipes’ in their descriptions of pottery manufacture.²⁹ The siliceous-paste body is composed of eight to ten parts quartz, one part crushed glass and one part fine white clay. The whole of this rather friable mass comes together in the firing through the glass and clay combining to cement the quartz particles. In the literature you find other names for this body, such as: quartz-frit, faïence, artificial paste, and *cachin* or *kashi* (which the Russians translate as ‘semi-faïence’).³⁰ I prefer the term ‘siliceous-paste wares’, a term coined by Martina Rugiadi in her paper defining the *terminus ante quem* of 1087 archaeologically for this type of body in Iran.³¹ In many instances, without thin sectioning and X-ray analysis it is difficult to discern whether it is a true fritted body, or just a calcareous clay one. Blackman and Redford at Gritille, a small twelfth/thirteenth century fortified site near Samsat, in eastern Turkey, discovered that 37/168 glazed sherd samples investigated by

²⁵ Reitlinger (1938), 157.

²⁶ *Ibid.*

²⁷ Mason (1995), 307-321.

²⁸ Allan (1973), 111-20; and Porter (2004a), 165-89.

²⁹ *Ibid.*

³⁰ Koval (2006), 161.

³¹ Rugiadi (2010), 181.

instrumental neutron activation analysis had been erroneously identified by eye as having a siliceous-paste body, and in fact all thirty-seven had a calcareous clay one.³²

It is unlikely that these wares were produced for formal court banquets as documentary evidence alludes to the use of precious metal vessels and imported Chinese porcelains for this purpose, but they were probably to be found in pharmacies and kitchens; it is also unlikely that they were manufactured in one centre. They were most probably made for the merchant classes, senior administrators and religious institutions with guest accommodation.³³ The group known as Kashan lustre wares is excluded as it has already been well-studied by Oliver Watson,³⁴ though occasionally it is necessary to draw upon this type for comparative shapes, styles, inscriptions and dating information.

1.4. ARCHAEOLOGICAL EXCAVATIONS

A number of scientific excavations and surveys have been carried out,³⁵ but natural erosion, and continuous or a later occupation, are frequently found to have destroyed much of the stratigraphy, thus contaminating the evidence. No kiln sites for these fourteenth century Iranian wares have been published scientifically to date. Kiani describes Īlkhānid production and includes images of kilns from his excavations at Jurjān, yet to my knowledge they remain unpublished.³⁶ Since 1979 the Iran Cultural Heritage and Tourism Organisation (ICHTO) and several universities have been actively engaged in excavating Islamic sites. The ICHTO Khurasan archaeology unit based in Mashhad under the directorship of Mr Labbaf is particularly energetic; they write internal reports and there was talk of a website, but to date nothing is in the public

³² Blackman and Redford (1994), 31.

³³ Watson (2006), 325.

³⁴ Watson (1985).

³⁵ For example, Safar (1945); Fyodorov-Davydov (1984); Gibson, Armstrong and McMahon (1998); Bivar (2000); Priestman and Kennet (2002), 265-67; Kennet (2002), 151-164. See Chapter 3 for a gazetteer and much fuller account.

³⁶ Kiani (1984), 69-70, pl. 32.2, 34.1, and 34.2 – the latter was a tile kiln.

arena. On my two study visits to Iran in 2002 and 2003 all the archaeologists interviewed were extremely cooperative and willingly shared their discoveries and observations. The results of these visits are included in Chapter 3.

1.5. PREVIOUS STUDIES

Two doctoral theses, and a master's thesis, have been written on Sultanabad wares. Kristy McCoy's unpublished MA thesis is a useful synthesis of published material up to 1991, and outlines both Lane and Reitlinger's studies.³⁷ Madame Mathias-Imbert's doctoral thesis, entitled *La Céramique Il-Khanide et ses Motifs Décoratifs*,³⁸ analyses 850 non-archaeological museum pieces (both tiles and vessels) chosen for iconographical interest. She includes black decorated wares under a clear turquoise alkaline glaze in her Sultanabad classification, and lustre tiles for comparative material. Her work demonstrates the range and variety to be found in these wares, building on both Lane's and Reitlinger's classification and adding more material. Peter Morgan's more recent Oxford thesis, titled: *Change and Continuity in Il-Khanid Iran: the Ceramic Evidence*,³⁹ covers the period 1260-1340, and he makes more use of archaeological discoveries, with a special focus on the German investigations at Takht-i Sulaymān, especially the tile sequence revealed there. Their fourteenth century ceramics have yet to be published, but he has the advantage of firsthand experience, as he joined the team for a couple of seasons in 1975 and 1977.⁴⁰ The other two theses ignore the archaeological material and restrict themselves to art historical comparisons. A more recent article on Īlkhānid pottery by Watson,⁴¹ presented as a paper at the 2003 Los Angeles County Museum of Art (LACMA) conference organised in conjunction with the *Legacy of Genghis Khan* exhibition, follows Morgan's classification divisions,

³⁷ McCoy (1991).

³⁸ Mathias-Imbert (1993). I am grateful to Alastair Northedge for bringing this study to my attention.

³⁹ Morgan (2005).

⁴⁰ *Ibid.*, xiii.

⁴¹ Watson (2006), 335-41.

breaking away from the Lane/Reitlinger Sultanabad categories, only retaining two by name: the grisaille effect white-slipped, coloured-ground wares (a name coined by Morgan in his 1995 article),⁴² Lane's type 2 (Catalogue numbers 1.1.1 and 1.1.2); and the polychrome slip-relief variation, Lane's type 1 (Catalogue numbers 1.3.1 and 1.3.2).⁴³ He sees these two wares as being closely related, and therefore likely to be from the same production centre. The others he incorporates under the umbrella of 'Īlkhānid underglaze-painted wares', namely: panel style; polychrome painted; and black under turquoise.⁴⁴ This helps to clarify the rather confusing classifications used by Lane and Reitlinger. The other siliceous-paste wares that he includes are: lustre (vessels and tiles); *lajvardīna* (the continuation of overglaze-painted enamelled *mīnā`ī* wares - the name derives from the Persian word for lapis lazuli, and is discussed in the Catalogue, Volume 2, type 1.9 and page 202 in this volume);⁴⁵ imitation celadon; white wares; and monochrome glazed wares. Morgan also preferred this subdivision for the fine siliceous-paste, so-called Sultanabad wares, and calls them coloured-ground and 'Aragh' wares; the latter is Watson's polychrome slip-relief ware, and the term was used by the early twentieth century dealers for the Sultanabad area. He discusses six other categories of vessels: Syrian wares (Watson's white wares); *lajvardīna*; lustre; imitation celadon; black and turquoise; and blue, black, and turquoise on white.

The most recent publication is Yuka Kadoi's chapter on ceramics in her *Islamic Chinoiserie: the Art of Mongol Iran*.⁴⁶ She did not consult either Watson or Morgan, and much of her information is outdated. She does confirm that the Chinese influence is stylistic and not technical.⁴⁷ More importantly, a little later she cites a case for an earlier

⁴² Morgan, (1995), 19-43.

⁴³ Watson (2006), 338-39.

⁴⁴ *Ibid.*, 340-41.

⁴⁵ *Ibid.*, 336-37.

⁴⁶ Kadoi (2009), 39-73.

⁴⁷ *Ibid.*, 50.

date for Chinese blue and white production, with finds in a dated tomb of 1319, and some in a late thirteenth century context in Inner Mongolia.⁴⁸ She agrees that designs could have been transmitted by textiles, but sees the increased use of paper as a major vehicle for the dissemination of patterns.⁴⁹

Building on these typologies and based on archaeological discoveries I have further subdivided this material and it is presented and illustrated in the Catalogue in Volume 2 along with comparative material from the Golden Horde and Mamlūk territories.

1.6. COMPARISONS WITH CONTEMPORARY PRODUCTS IN THE GOLDEN HORDE AND MAMLŪK TERRITORIES

This study draws on archaeological information available in Iran, and makes comparisons with excavated material from both Golden Horde sites (the area occupied by the Jochid branch of Genghis Khan's successors, which encompassed the Volga River basin roughly from Kazan to the Caspian, the northern Caspian and Black Sea littorals, Khwārizm and the north Caucasus - see Map 5, page 34), and ones in Mamlūk Syria and Egypt. Due to publication delays, much of the information has been garnered by interviewing the archaeologists involved. Another source of material is to be found in museums' storage; material with a recorded provenance is included in the corpus. For example, in the Ashmolean there are two bowls from Sultāniyya that Gerald Reitlinger purchased on a visit to the site in 1931. He was accompanied by David Talbot Rice, with whom he had been working at al-Hīra, in Iraq. Talbot Rice published a fragmentary bowl he had acquired, and reported abundant wasters on the site.⁵⁰ This topic is discussed further in the Catalogue, in connection with Īlkhānid type 1.4.

⁴⁸ *Ibid.*, 68.

⁴⁹ *Ibid.*, 50.

⁵⁰ Talbot Rice (1932), 252-53. This is now in the V&A, inv no C8-1972 - see Catalogue 1.4.19a and b.

1.7. SCIENTIFIC AIDS FOR BODY ANALYSIS

Ceramic technological analysis facilities available today should add an invaluable dimension to archaeological ceramic studies. As stated above, several historical recipes exist, and there were two ethnographic studies carried out in Iran which demonstrate a continued use of this technology with twentieth-century refinements. The first is by Hans Wulff,⁵¹ whose book on traditional Iranian crafts gives much of the technical vocabulary. The second, by Micheline Centlivres-Demont, concentrates on the Maybod potteries, and is more relevant for this thesis; it demonstrates how some potters made vessels of both clay and siliceous-paste bodies in the same workshops.⁵² Today the Maybod pottery is highly mechanized, and is no longer a series of traditional workshops. They appear to make exclusively underglaze-painted siliceous-paste wares.⁵³

Robert Mason of the Royal Ontario Museum (ROM) has studied the petrographic fabrics of numerous Islamic wares, which he presented in his doctoral thesis, in subsequent articles, and most recently in a book entitled *Shine Like the Sun*.⁵⁴ His studies include both archaeological and dealer-purchased material, with some earthenware provincial copies. Mason uses the term ‘stonepaste’ for these siliceous-paste vessels. He admits that the bulk of the quartz material could easily mask the clay’s properties.⁵⁵ However, he is confident that the technique he has devised is sufficient to differentiate the various petrographic sources, whether quartz or clay, and to assign a firm provenance once production sites have been established. His admission that: “attempts at chemical analysis are theoretically problematic as the quartz is generally

⁵¹ Wulff (1966), 374.

⁵² Centlivres-Demont (1971).

⁵³ A brief visit made in September 2002.

⁵⁴ Mason (2004), see full bibliography of Mason’s publications herein.

⁵⁵ Mason (1996), 16.

not chemically diverse,”⁵⁶ is, however, worrying. The research for his thesis was carried out exclusively by him in the Research Laboratory for Archaeology and History of Art (RLAHA), Oxford University. An interview with the laboratory’s geologist, Christopher Doherty, to seek a scientific appraisal of the whole process, and Mason’s methodology was carried out.⁵⁷

In the course of my field study tour to Iran I had acquired three sherds from archaeological sites: a blue, black and white underglaze-painted base sherd decorated with traces of a geometric design, most probably a central six-pointed star, collected from Isfarā’īn, Juvayn, Western Khurasan (Catalogue number 1.6.4); a turquoise-glazed T-rim fragment from Marāghe, NW Iran (Fig. 3.8); and a Sultāniyya blue and white sherd (Catalogue number 1.14.4). In addition to these, Nicholas Talbot-Rice kindly gave me a Sultāniyya black and turquoise fragment (Catalogue number 1.15.6) from his father’s collection, made of exactly the same material as the other type 1.15 fragments. Although the RLAHA’s scanning electron microscope (SEM) was out of service, Doherty agreed to look at thin sections of all these pieces through a conventional X10 magnification microscope to identify whether their body pastes were siliceous or calcareous clay.⁵⁸ The results are given in the Catalogue. Suffice it to say that by this method he was able to confirm what is evident by eye, touch and feel.

LACMA instigated a programme to test the glazes and petrofabrics of related wares commencing with Īlkhānid tile material from Takht-i Sulaymān,⁵⁹ in NW Iran. The next phase is to sample the Mamlūk pieces from the recently acquired Madina collection. They would like to include other collections, especially the Hermitage’s Golden Horde pieces, but to my knowledge nothing has been formalised to date. A

⁵⁶ Mason (1995), 307.

⁵⁷ This was carried out in February 2004, and I am most grateful to him for his patience and clarity.

⁵⁸ This was done on 30.5.2012 and I am grateful to Chris Doherty for this help.

⁵⁹ Hix, Leona and Meyer (2002), 233-41.

recent email correspondence with John Hix reported that the project has been on hold since 2004 due to other commitments, but they now have the requisite instruments to continue with it in the future.⁶⁰

1.8. THE PROBLEM

Given the paucity of archaeological fixed points, studies and art historical research have been greatly aggravated by ‘the problem,’⁶¹ identified by Reitlinger in his article on Sultanabad wares. This problem is the considerable uniformity in decoration of many of the contemporary wares produced in Mamlūk Syria and Egypt, and those in Iran and Central Asia, making it difficult to identify a regional provenance. Reitlinger saw a Syrian influence on these Iranian wares, believing the vitreous glazes, and the panel designs on many, to be of Syrian origin, Lane declared the opposite opinion in *Later Islamic Pottery*.⁶² Rogers went further and stated that “The artistic dependence of Egypt upon Iranwas not reciprocated.”⁶³ I believe we should keep an open mind on this matter in the case of ceramics, and attempt to identify as many diagnostic features as possible in order to differentiate between the sources of these products. In the Golden Horde territories there was also an active contemporary ceramics industry, but most of these wares are appreciably more distinctive.⁶⁴ Then there is the question of where to place the so-called ‘Bojnurd’ or ‘Juvayn’ bowls, which appeared on the art market in the 1970s; the first published example that I have found was in the Mahboubian 1971 exhibition catalogue.⁶⁵

In some cases, the similarities between the geometric wares are so ill-defined that dealers have exacerbated the situation by assigning provenance by market forces.

⁶⁰ Email from John Hix 7.2.2012.

⁶¹ Reitlinger (1945), 27.

⁶² Lane (1957), 18.

⁶³ Rogers (1972), 386.

⁶⁴ Compare Lane’s *LIP* plates 4a and 5a.

⁶⁵ Mahboubian (1971), # 318, now in the Reza ‘Abbāsi Museum collection, Tehran.

For example, in the early 1980s, a type 1.6 bowl was sold by Houshang Mahboubian to an English dealer. It had been imported from Iran, and given a provenance of Nishapur or Jajārm (near Isfarā'īn), both in Western Khurasan. A few months later it appeared in a Sotheby's sale catalogue described as "A large Mamluk blue-and-white pottery bowl (fourteenth century, diameter 32.5cm)."⁶⁶ In 1996 it, or an identical one (the only discernible difference is 0.9cm in the diameter measurement - as these wares are never perfectly shaped, the measurement will undoubtedly differ at points around the vessel), appeared in the Christie's October sale styled as "A Mamluk pottery dish, Syria, probably Damascus, fourteenth century."⁶⁷

The Islamic section of the National Museum, Tehran, has one on display (Catalogue number 1.6.2).⁶⁸ It is said to be from Khurasan, but is dated to the fifteenth- or sixteenth-centuries. Unlike many similarly decorated vessels in other Iranian museums, which have either been purchased on the open market or confiscated from 'smugglers', the National Museum's piece is of impeccable pedigree, according to the curator, Madame Zohra Roohfār. In other words she believes it to have come from a sound provenance in Khurasan, from a chance find, probably through village elders and not confiscated from smugglers who had attempted to restore it from fragments. She showed me the registration card, but that had no additional information. So, evidently we need to define these similarities and differences then establish who copied whom. Or investigate whether collectors have been duped by the dealers into thinking there is a far wider geographical distribution than there was in reality. This is another idea explored in this study. Form and function will be discussed at length in the section on utility, Chapter 6.

⁶⁶ Sotheby's (1982), #62, 79.

⁶⁷ Christie's (1996), #320, 139.

⁶⁸ Karimi and Kiani (1985), 262-63, plate 85.

1.9. WRITTEN SOURCES

The written sources specifically dealing with ceramics at this period are few; the Arabic ones have been well summarised by Marcus Milwright.⁶⁹ What is not clear in his article is the traditional translation, use, and interpretation of two words ‘*ṣīnī*’ and ‘*qāshānī*’. It is a question of whether they are generic terms for fine ceramics or indications of their country of origin. This is discussed in Chapter 5, sections 5.2.1 and 5.2.2. Milwright’s article also highlights the social side of this topic and al-Maqrīzī’s (d 845/1442) disgust at the ‘throw away’ society in fifteenth century Cairo that chucked red earthenware bowls (*al-shiqāf al-ḥumr*) used to contain dairy products and served as takeaway containers for the poor of Cairo.⁷⁰ An article by Amelia Levanoni complements Milwright’s study and demonstrates how food preparation and ritual were used politically to prove that Mamlūks followed Islamic traditions and upheld Muslim ideals and practices.⁷¹ Levanoni details various aspects of the kitchen and use of utensils, and makes interesting observations, such as, the fire risk from cooking in domestic kitchens – in 751/1350 the Cairene quarter Khaṭṭ al-Bunduqīyīn was burnt to the ground over a period of two days from a fire that started in a kitchen, with the consequence, according to al-Maqrīzī, that many abandoned cooking in the home and bought cooked food in the market.⁷² Goitein had already noted for the previous two centuries that:

*“...bringing home cooked food from the bazaar was common practice. Although one document states that Jews did more cooking at home than others, we see that brides have in their trousseaus a meal carrier, a contrivance consisting of several compartments and a handle in which various warm dishes could be brought home at a time.”*⁷³

Such metal containers could certainly have housed ceramic dishes for this food and doubtless services were commissioned especially for this use. There are several later

⁶⁹ Milwright (1999a).

⁷⁰ *Ibid.*, 505.

⁷¹ Levanoni (2005)

⁷² *Ibid.*, 204.

⁷³ Goitein (1983), 141.

examples in the Museum of Islamic Art (MIA), Cairo,⁷⁴ indicating that this was a continuous practice. See Figure 1.1 for a fifteenth century example in the BM.

Persian *waqf* documents indicate that pottery vessels had to be provided for guests and students in religious institutions.⁷⁵ Indeed, Ibn Yamīn Faryūmadī (d 1368), “the eulogist of several small Khorasani rulers, even criticizes the excessive spending to embellish *khāneqāhs* [sic] in a poem.”⁷⁶ The fourteenth century explosion of *khānaqāhs* has been studied in a couple of articles by Lisa Golombek⁷⁷ and Sheila Blair,⁷⁸ and Potter adds to their information.⁷⁹ However, medieval geographers seldom mention anything as lowly as ceramic production. The fourteenth century Persian historian and geographer Mustawfī (1281-1349) occasionally refers to metalwork and wooden bowl manufacturers, but not potters.⁸⁰ A century earlier Yāqūt (1179-1229) does refer to Kashan tiles and beautiful green bowls of *qāshī*-ware which were produced for export.⁸¹ These could have been imitation celadons, although at this period Chinese celadons were a dirty, olive green. Colours are difficult to define without the aid of a gauge such as a Munsell chart, and even this is open to individual interpretation, and the operator’s ability to see colour. Different commentators may perceive and describe a colour in a variety of ways, and colour-blindness is not uncommon, so colour descriptions must be read with caution, even in modern publications.

1.10. THE CRAFTSMEN AND THEIR TRADE

Almost nothing is known of these potters, and being engaged in ‘trade’ their status in society would have been low. However, for successful master craftsmen’s families, with

⁷⁴ Wiet (1984), 98-100; plates LXVI-LXXI; Ward (1993), 118-19; fig 95.

⁷⁵ Blair (1984), 83.

⁷⁶ Potter (1994), 79; he cites his source as Rodwell (1933), 44 - “The craze for building.”

⁷⁷ Golombek (1974).

⁷⁸ Blair (1990).

⁷⁹ Potter (1994), 78, footnote 4.

⁸⁰ Mustawfī (1915-1919).

⁸¹ Le Strange (1965), 209.

the means to educate their young, it was possible to be socially mobile. Golombek, using a fifteenth century text, cites a young poet:

“Mani of Mashhad, son of a famous potter, who disdained his father’s profession, seeking, rather the highlife of the court at Harāt. Pottery-making was a family business, and Mani’s brother had already learned his father’s trade.”

and so was thus apparently free to try his chance at court.⁸² Admittedly this citation was for at least half a century later than the period under discussion, but a contemporary example is found in the Abū Tāhir family of Kashan.⁸³ Yūsuf, known to be at least the fourth generation in the family workshop, followed in his father’s footsteps, but his two younger brothers took other routes: Jamāl al-Dīn Abū’l Qāsim ‘Abd Allah (already referred to as Abū’l Qāsim above) became a scribe and accountant, and was commissioned by his mentor, the vizir Rashīd al-Dīn (1247-1318), to write Öljeitü’s official history. He also wrote a treatise on gems and minerals, which includes a section on the art of ceramics and the technical composition thereof;⁸⁴ while another brother, ‘Izz al-Dīn Maḥmūd, became a Šūfī and entered the Suhrawardī *khānaqāh* at Natanz.⁸⁵ It is tempting to propose that this ability to escape the traditional family occupation was a result of Īlkhānid rule, and perhaps society had become less stratified and more flexible with the break-up of the established order by the imperial power. It is, however, more likely that with the increased riches from a successful business it was possible to ‘buy’ respectability. Whichever way you look at it, what is clear is that manufacturing fine tablewares was evidently a profitable enterprise.

The Mamlūk potters were regulated by the market inspector or *muḥtasib*.⁸⁶ In Iran it is thought that a similar system existed.⁸⁷ In the medical field strict rules on the

⁸² Golombek (1995), 238.

⁸³ Blair (1986), 395.

⁸⁴ *Ibid.*, note 24; Allan (1973).

⁸⁵ Blair (1986), 395.

⁸⁶ Milwright (1999), 508.

cleanliness of pots were supervised by the *muhtasib*, indeed he had the right to destroy pots if they were “old and smelly.”⁸⁸

1.11. INSCRIPTIONS ON TILES AND POTS

Many of these pots have pseudo-epigraphic designs, but as can be seen in the Catalogue several have legible benedictory inscriptions in Arabic. O’Kane has demonstrated that Persian inscriptions on both objects and buildings become increasingly common from the late twelfth century.⁸⁹ The largest source of inscribed tiles is Takht-i Sulaymān, where forty-three different poets have been identified.⁹⁰ Many of the *Shahnamah* texts are incomplete and O’Kane suggests these may have served as an *aide memoire* for oral recitations.⁹¹ He goes on to remark that Persian was much more common on lustre pottery vessels and tiles in the thirteenth/fourteenth centuries than on metalwares, declaring:

*“The import which the use of Persian carried was therefore not the same for different media. Luster pottery was perhaps less of a luxury ware than metalwork or the finest textiles, and may have been distributed to a wider non-princely clientele to whom Arabic may have been incomprehensible.”*⁹²

Most of the poetry on pottery vessels is Ṣūfī, possibly reflecting the new-found importance of Sufism in society. O’Kane suggests that Mongols favoured mystical Islam “perhaps because of its greater affinities to their previous attachment to Shamanism,”⁹³ In this context though he suggests that it is more likely that ideas of Iranian separateness were revived, and the language switch reflects this.⁹⁴

⁸⁷ Lambton (1971), 490.

⁸⁸ Elgood (1951), 275.

⁸⁹ O’Kane (2009), 26ff.

⁹⁰ *Ibid.*, 48.

⁹¹ *Ibid.*, 49.

⁹² *Ibid.*, 62.

⁹³ *Ibid.*

⁹⁴ *Ibid.*, 63,

1.12. IMITATIONS AND ARCHAEOLOGY

One further point to make is that the Egyptians and Syrians were great imitators, and vast quantities of locally-produced imitation Longquan celadon wares have been excavated at sites such as Fustāṭ, Alexandria, Aleppo and Ḥamā, and seemingly rather fewer in Iran, although this could be disproved in the future.⁹⁵ The Takht-i Sulaymān sherd collection in the Berlin Museum confirms a local production – see type 1.8 in the Catalogue for examples and further discussion. It has already been noted above that before the Mongol invasions Yāqūt recorded that Kashan was renowned for producing green wares, which could have been imitation celadons, or the more common plain turquoise wares. However, the Īlkhānids had ample supplies of the genuine article, as evidenced at Hormuz, although they appear less common inland,⁹⁶ this could be because they have yet to be found or being precious and portable they were taken as booty. By contrast, Bolgary, on the middle Volga, in the northern Golden Horde territories, has huge quantities of both imported celadons and their imitations. There are several intact imitation wares labelled ‘from Iran’ in Western collections.

The Īlkhānid coloured-ground style (Catalogue, type 1.1) was imitated by the Mamlūks and this is discussed in Chapter 5, section 5.5 and the Catalogue type 3.1. The presence of Sultanabad imports in Fustāṭ and Alexandria has crept into the literature, without any confirmation, certainly none were found in the American excavations.⁹⁷ Gayraud’s team at Iṣṭabl ‘Antār, Fustāṭ has recently excavated a cistern in which they found Mamlūk material, the results of which were reported on at the last conference organised by the Association Internationale pour l’Etude des Céramiques Médiévales de

⁹⁵ Rogers (1985), 264.

⁹⁶ Morgan (1991), 67, and note 6 on page 78.

⁹⁷ A fact confirmed by George Scanlon by email on 15 May 2003.

la Méditerranéennes in Venice, November 2009.⁹⁸ The full paper will be published shortly. In the conference abstract Gayraud does not mention any imported wares, but does state that they found imitation celadon wasters. However, there is one Īlkhānid coloured-ground style fragment in the Ashmolean collection (P.645 - see Catalogue number 1.1.13a/b) which according to the register is from Fustāt, but there are no further details as to how and by whose hand it arrived in the museum.

1.13. DATING

Dating is a problem with these wares, for there are few secure archaeological contexts. However, there are some dated vessels which are discussed and listed in the Catalogue. As an illustration of the problems of the whole dating issue, in the Bīrjand Museum (approximately 485km south of Mashhad in the eastern part of Western Khurasan) there is a blue and white bowl with a typical fifteenth century honeycomb design dated 925/1529 (Fig. 1.2). It is undoubtedly a provincial copy, but it was evidently prized by someone, as it had been mended with metal rivets at some stage, and was one of a group found in a graveyard 70km north of Bīrjand. It indicates the continued use of decorative motifs spanning well over a century, and that extreme caution must be used when attempting to date by comparative decoration.

Amongst the Mamlūk ‘copies’ there are several base sherds from Fustāt, some with “made in the year forty-five,” (*umila sanat al-khamsa wa al-`araba `in*) and others with simply “year forty-four” (*sanat `araba wa `araba `in*) or “forty-five” (*sanat khamsa wa `araba `in*) written cursorily in Arabic in the tondo (see Fig. 1.3). Lane suggested that this formula should be read as 744 or 745/1343-44,⁹⁹ and his theory is supported by both Marshak and Blair; the latter in her survey of Islamic inscriptions

⁹⁸ Gayraud and Trégliā (2009), 8.

⁹⁹ Lane (1957), 9. Wherein he records: “...such pieces have turned up both at Hamā and Fustāt, and provide a useful check for the general chronology of the Mongol style in pottery.”

wrote: “When space was a premium, the ‘centuries’ digit could be dropped.”¹⁰⁰ More recently, Edward Gibbs has proposed a possible alternative dating formula, and that it could be the forty-fourth or forty-fifth year of the reign of al-Nāṣir Muḥammad ibn Qalawūn (d 741/1341), which would be between 739-741/1338-40.¹⁰¹ However, there is no historical mention of any significant event to indicate a special anniversary, or jubilee celebration. These base fragments reveal little of the cavetto decoration, but most would appear to have had panel designs emanating from the central inscription.¹⁰² When digitally recording the entire Gayer Anderson Museum’s, Cairo (GAMC) sherd collection¹⁰³ in 2002, number 541¹⁰⁴ was found to have traces of the diagnostic Mamlūk trefoil leaves, imitating the foliage of Sultanabad coloured-ground wares.¹⁰⁵ Another example can be found in the Berlin Museum collection (Fig. 1.3). These key observations confirm that this decoration definitely continued well into the middle of the fourteenth century. The same trefoil leaf that occurs on the imitation Sultanabad vessels can also be seen on an unpublished Mamlūk playing card displayed in the LACMA galleries,¹⁰⁶ metalwares,¹⁰⁷ and enamelled glasswares;¹⁰⁸ the latter two confirm the mid-fourteenth century dating.

1.14. CONTEMPORARY TILE PRODUCTION

Interesting comparisons and observations can be made with contemporary tile production. The late Douglas Pickett presented a significant corpus and survey of dated

¹⁰⁰ Blair (1998), 217.

¹⁰¹ Gibbs (2000), 33, note 54 for further references.

¹⁰² Bahgat and Massoul (1930), pl. L, 86.

¹⁰³ This comprises 769 items, all stored in two drawer-cabinets in Room F. The majority are sherds, but there are 133 lamps, many of which are complete. It is assumed that these all came from Fuṣṭāṭ. The numbers are not museum registration numbers, but those given by the author when photographing each individual item. The museum register only has a few numbers which cover the entire collection. I am grateful to Nicholas Warner for bringing this collection to my attention and facilitating their recording.

¹⁰⁴ There are two other dated sherds, nos 542 (Cat no 3.3.10) and 543 (Cat no 3.3.12).

¹⁰⁵ Lane (1957), pl. 1 & 4.

¹⁰⁶ Madina collection – M.2002.1.650.

¹⁰⁷ Ward (1993), 111, pl. 88 – inscription includes name and titles of Sulṭān al-Nāṣir Muḥammad ibn Qalawūn (d 1341).

¹⁰⁸ Stanley (2004), 16, # 14 – lamp dated between 1347-1361.

buildings with their tile decoration, which is a valuable resource. Pickett supports the argumentation for the fourteenth century underglaze-painted blue and black on white tile industry.¹⁰⁹ He sees these tiles as part of:

“...an emerging eighth/fourteenth century corpus recently described by Rogers¹¹⁰ as “a homogeneous group of material, mostly carved in relief enhanced with white slip on a brilliant cobalt ground, with drawing in greenish black and occasionally some turquoise staining” and provisionally attributed to Kashan between 700/1300 and 751/1350. To this group we could also assign the blue and white tiles found in Uljaitu’s mausoleum without necessarily implying a parental influence on Turbat-i Shaikh Jām.”¹¹¹

Morgan’s thesis presents a more recent, and extensive catalogue of all categories of glazed tiles produced between 1260 and 1340.¹¹² In his introduction he states that the archaeology suggests three phases of decoration,¹¹³ with the earliest dated lustre tiles being 1270 and 1274 at Takht-i Sulaymān; the contemporary, but undated *lajvardīna* tiles produced on the site represent the earliest known in Iran;¹¹⁴ a comparable overglaze enamelled star-and-cross tile type is known from Qiliç Arslan’s (r 1156-92) pavilion in Konya, Anatolia.¹¹⁵ Morgan suggests that either Qiliç Arslan IV (r 1248-49, 1257-66) or his brother Kay Kāwus II (r 1246-57) renovated this structure, and that these enamelled tiles reflect the Mongol taste of their overlords.¹¹⁶ However, he does not present any concrete evidence for this attractive theory. The earliest known Persian inscription in Anatolia is 1220, to be found on Kay Kāwus I’s (r 1211-1220) hospital in Sivas.¹¹⁷

¹⁰⁹ Pickett, Douglas (1997),: 113-14.

¹¹⁰ Rogers (1979).

¹¹¹ Pickett, (1997), 114.

¹¹² Morgan (2005).

¹¹³ *Ibid.*, xvii.

¹¹⁴ *Ibid.*, 14.

¹¹⁵ Turkish (1983), 22-26, figs. D3-10.

¹¹⁶ Morgan (2005): 90.

¹¹⁷ O’ Kane (2009), 37.

Returning to Takht-i Sulaymān, it is difficult to see how the archaeology helps in any precise dating. Morgan explains that Abāqā Khān's building works were never finished and most of the tiles were dismantled sometime before 1300, probably proscribed by Ghāzān's islamicisation programme at the end of the thirteenth century. Many of these tiles were reused in domestic structures at the site.¹¹⁸

1.15. PRODUCTION CENTRES

Kashan was seen as the major tile and ceramic producer, yet Abū 'l Qāsim's reference to Baghdad, Tabriz, and "other places"¹¹⁹ with regard to their choice of wood for firing the kilns used for siliceous-paste wares should not be ignored. He is informing us that there were other pottery centres producing these siliceous-paste wares. The investigation of different ceramic centres is central to this thesis. Golombek and colleagues dismissed Baghdad as a possible production centre in favour of Diyār Bakr at the end of the fourteenth century on the grounds there were no suitable raw materials available in the central flood plain.¹²⁰ They did not discuss the idea that these raw materials could have been sourced from Diyār Bakr or another basaltic region, and that perhaps the manufacturing process took place in Baghdad. Instead they saw that "Diyarbakir's [*sic*] position at the head of the navigable Tigris would have made it ideally suited to supply the East African market."¹²¹ This rather far-fetched statement is discussed in Appendix B.

1.16. PROPOSED CORPUS

This largely fourteenth century corpus includes the various so-called Sultanabad wares, underglaze-painted wares, *lajvardīna* ones and imitation celadons, all of which are itemised in the Catalogue in Volume 2. There are anomalies in that the quantity of

¹¹⁸ Morgan (2005), 33.

¹¹⁹ Allan (1973), 114.

¹²⁰ Golombek, Mason and Bailey (1996), 130-31.

¹²¹ *Ibid.*, 131.

archaeological material does not match that of museum collections. For example, the slip-relief, coloured-ground wares (type **1.1**) which are so prevalent in museum catalogues are poorly represented in Iranian archaeological contexts. Morgan states that the alkaline glazes used for the Iranian examples are water soluble, and have even been known to degrade within museums, which could account for their scarcity in archaeological contexts.¹²² This is not true for the Golden Horde products for which there are abundant finds of a similar ware (type **2.1**) found in much wetter contexts. Alternatively, it could be argued that this is another diagnostic difference between the two products and indicates a chemical difference in the glaze materials. Morgan adds a fragmentary jar in the Zanjān ICHTO storage from Nūrabad to his list, which I did not see in my all too brief visit to these stores.

The black under a transparent turquoise glaze group is an important part of this corpus (Catalogue types **1.4** and **1.15**). When I was discussing the topic with archaeologists in the Zanjān ICHTO office, they emphasised that when surveying sites this is the most common ware and a clear indicator of Īlkhānid occupation.

Years of illegal excavations and misleading provenance citations have totally confused the overall picture, and even the more luxurious siliceous-paste wares can be shown to have defined regional variations. This study is an attempt to rectify this and serve as a foundation for establishing the differences in the fourteenth century products. Golombek and colleagues have done this for the fifteenth century.¹²³ They have demonstrated that diagnostic decorative features can be attached to identified kilns, in the fifteenth century, for example the Nishapur “double-scroll” exterior motif.¹²⁴ However, their argumentation should be approached with caution, as demonstrated by

¹²² Morgan (2005): 143.

¹²³ Golombek, Mason and Bailey (1996)

¹²⁴ *Ibid.*, 204-205, plates 45 and 46.

the case of a bowl in the Ashmolean Museum collection with a classic double-scroll decoration,¹²⁵ which Mason sampled but designated it as “ungrouped,” indicating that it did not have the same petrofabric as the other Nishapur pieces. He failed to point this out in his discussion.

1.17. THE QUESTION OF UNIFORMITY

This corpus does not explain the perceived uniformity of the decorative motifs between Iran, Mamlūk Egypt and Syria, and the more distinctive Golden Horde products.

However, what has become increasingly clear is that there are diagnostic shapes for each group, this is discussed in Chapter 5, section 5.4. In several instances it is possible to use shape in the argument for identifying the provenance of specific designs and comparative material is discussed. Chapter 2 outlines the historical background and attempts to demonstrate that the histories greatly inflated the daily realities of the political situation. The historical chronicles indicate that this was a period of considerable turmoil. Under the Īlkhānids there were frequent battles and border skirmishes with both the Golden Horde and the Mamlūk forces. After the death of Abū Sa‘īd, in 735/1335, Iran split into a series of autonomous princely states, but most sought legitimacy through a Chingizid puppet, and the indigenous Muẓaffarids even acknowledged the shadow caliph in Cairo.¹²⁶ There was, however, constant cultural and economic exchange between all the states, and no evidence of enforced blockades. Cultural and religious patronage was another means of expressing and aspiring to legitimacy. There was a notable increase in institutional building activity in the principal cities.

Chapters 3 and 4 discuss the archaeology of all three areas and Chapter 6 discusses the organisation and use of these wares. All serve to demonstrate the

¹²⁵ *Ibid.*, # OA4 – 1978.1593, see Table A.2 on page 154.

¹²⁶ Roemer (1986), 4, for a chart giving a summary of this split.

interconnectivity of these cultures, so it is not surprising that there is such a seeming uniformity. I think that eventually it will be possible to demonstrate that it was largely ideas and perhaps the potters that travelled but few of these ceramics did, trade was restricted to textiles, raw materials and luxuries, not the mundane pot.

1.18. CONCLUSION

My premise is that we are certainly not discussing tribute-quality ceramics, there would have been ample supplies of precious metal vessels, Chinese porcelains and inlaid bronzes for this level, in addition to the requisite textiles. What we are discussing is a fine tableware for the many religious and commercial institutions that had guest accommodation, for general use in the encampments of the nomadic rulers on their tours around their lands, for the military and civil administrators in their centres, and amongst the merchant classes. This frequent courtly movement and ceremonial would have assisted in disseminating fashionable ideas throughout the Īlkhānid Empire and beyond. It is likely that this tradition would have persisted long after their demise. The Moroccan jurist, Ibn Baṭṭūṭa (1304-1368), illustrates the ease of travel throughout the Islamic world in the first half of the fourteenth century, and how he frequently stayed in religious hospices or was well entertained by prominent officials. This uniformity in decorative designs is a perception, and there are discernible differences which I intend to demonstrate in the following chapters. However, as I have already stated, this is very much work in progress and each new archaeological discovery may serve to add another dimension.

1.19. FIGURES



Fig. 1.1 - A Mamlūk brass lunch box - engraved and originally tinned. It has three round containers and a lid which originally served as a lunch bowl. The cartouches contain a popular poem. Height 18.4cm. Damascus, 15th century. Image taken from BM website.¹²⁷ The examples in the MIA Cairo are almost double the size.

¹²⁷

http://www.britishmuseum.org/research/search_the_collection_database/search_object_details.aspx?objectId=238212&partId=1, accessed 22.5.2012.



Fig. 1.2 – An underglaze-painted blue on white bowl on display in the Bīrjand Museum, dated 925/1529. Found in a graveyard 70km north of Bīrjand. No dimensions available.



Fig. 1.3 – A Mamlūk type 3.2 base with the date forty-five inscribed in cursive Arabic letters in the tondo. From the Berlin Museum collection, inventory number I.1-78a. Diameter of foot 7.6cm; height 1.7cm.

2. HISTORY AND THE SOURCES

2.1. INTRODUCTION

This study follows the history of the Īlkhānid Empire approximately from Ghāzān Khan's (r 694-703/1295-1304) conversion to Islam on 2 *sha' bān* 694/17 June 1295¹²⁸ through to Timur's first invasions of 786/1384. In the search to understand how the seeming uniformity in pottery production in the Iranian, Mamlūk and Golden Horde worlds arose a brief analysis of their history in the thirteenth and fourteenth centuries follows and a discussion as to how the Mongol conquests could have had this effect on the material culture. After the death of Abū Sa'īd (r 716-736/1316-1335) commentators on the arts of the book have confidently assigned different schools of miniature painting to the successor dynasties in the so-called Interim Period – the Jalāyirids, the Īnjū and the Muẓaffarids,¹²⁹ but architectural and ceramic studies are much more tentative. Indeed, it is doubtful whether it is possible to be specific for such everyday items as pottery due to a lack of information on patronage and a paucity of dates. Notwithstanding that there is so little information available on production centres. Many of the types under discussion were ignored in Pope's *Survey of Persian Art*, and some, such as the coloured-ground wares, were included and assigned a thirteenth century dating; Morgan has argued convincingly for an early fourteenth century dating for these.¹³⁰

¹²⁸ See Potter (1994) for a precise account of religion in this period.

¹²⁹ O'Kane (2003), see the Bibliography for other references.

¹³⁰ Morgan (2005), 24.

2. 2. METHODOLOGY

I am approaching the subject as a practical field archaeologist, not as an historian, and am unable to read the original Persian and Mongol sources except in translation.¹³¹

Through this survey I am looking to establish the social context of these wares and to understand how ideas and fashions were disseminated. Such a study raises many questions and is ongoing research constantly under review with each new discovery and publication. There are several catastrophic events such as the Black Death which ravaged the cities of the *ulus* Jochi (Golden Horde) in 745-746/1345-46,¹³² and then the Eastern Mediterranean world, including Mamlūk Syria and Egypt in the following year, yet it is unclear if this had any long-lasting affect on material culture. For Iran there are passing references to the Black Death in Azarbayjan,¹³³ Sīstān where the malik Quṭb al-Dīn died of it in 747/1346,¹³⁴ and Baghdad,¹³⁵ but its impact is never given as a reason for a decline in agricultural productivity, or cessation of hostilities. It was usually seen as a result of famine, divine retribution for misdeeds, and not a disease transmitted along the commercial routes by merchants and travellers, as was the case in the *ulus* Jochi, the Black Sea littoral, and the Mediterranean world.¹³⁶

2.3. GEOGRAPHY

The late Andrew Williamson studied ceramic distribution patterns specifically in Fārs and Kirmān provinces, but was taking a wider view too and concluded that “...it does appear that the distribution of ceramics was determined principally by natural lines of communication rather than by fluctuating political boundaries.”¹³⁷ This is

¹³¹ If none have been available for the Persian Manijeh Bayani and Javad Golmohammadi have kindly assisted.

¹³² Dols (1977), 50; and Borsch (2005), reviewed by Hattox (2007), 203-5.

¹³³ Dols (1977), 45; Aubin (1976-77), 132, citing Ḥāfiz-i (1317), 227.

¹³⁴ Bosworth (1994), 443.

¹³⁵ Dols (1977), 45.

¹³⁶ Dols (1974), for Ibn al-Wardī's first-hand account of the plague.

¹³⁷ Williamson (1970), 206.

probably true for these types under review, and eventually it should be possible to establish a pattern of exchange along the principal trade routes, like the great Khurasan trunk route that Aubin described. This lay a little further north than the present day highway and railway line to Mashhad and passed through Juvayn to Nishapur and on to Tūs.¹³⁸ Market demands can be strong forces in assisting distribution. For fourteenth century Chinese ceramics it is certainly true: the demand was so great for such prestigious wares that examples are found in most urban and administrative centres and imitated widely, with considerably greater quantities found at transit points and its distribution certainly was not constrained by political boundaries, it was a free market.¹³⁹ The two great Mesopotamian rivers, the Tigris and the Euphrates, seemingly served more as borders than lines of communication, and were little used for transportation, unlike the Volga River basin and all its tributaries. The ceramic finds around the Caspian Sea reflect remarkably little contact between its northern and southern shores in the fourteenth century,¹⁴⁰ whereas in thirteenth century contexts fine Kashan lustre and *mīnā'ī* wares are found along the Volga up to Bolgary and Bilyar, and beyond in Moscow. Of course at this stage they did not produce these siliceous-paste wares, so there was a need to import such products from their southern neighbours. Despite a sharp increase in trade with the Īlkhānids and Mamlūks by the fourteenth century,¹⁴¹ it would appear that the Golden Horde potteries were meeting the home market demands. Only prestigious Chinese wares were imported.

2.4. COMMON LINKS – TEXTILES AND PAPER

A shared practice between all three powers was the use of and gift of textiles with ceremonial investitures being regular occurrences. This was already a long-established

¹³⁸ Aubin (1971).

¹³⁹ Morgan (1991).

¹⁴⁰ This may be because there has been insufficient study of Islamic sites in the Caspian littoral.

¹⁴¹ Martin (1978).

tradition in the Iranian and Arab world from well before the rise of Islam and was the impetus for trade all along what was to become known as the ‘Silk Road’. The brocades woven in gold and silk called *nasīj* in Arabic and *nakh* in Persian are referred to in European medieval texts as ‘Tartary cloth’.¹⁴² They also served as currency,¹⁴³ and were taken as booty.¹⁴⁴ When the Mongols swept through Asia they rounded up weavers and organised them into state workshops or *kārkhānas*. Allsen cites a thirteenth century Chinese source who observed Chinese craftsmen working in Samarqand in 1221/22 and heard of Chinese weavers forcibly settled in Siberia to weave fine silks.¹⁴⁵ There is no mention of potters in a thirteenth century context. It was Arthur Lane who suggested that design motifs were undoubtedly transmitted through the medium of textiles.¹⁴⁶ As an example, compare the floral design in Appendix A, motif **1k** with the type **1.1** Ilkhānid ceramics in the Catalogue, Volume 2. This close link is evident.

Yuka Kadoi suggests that the increased availability of paper is an even more likely medium for transmitting design ideas in the fourteenth century, as it was considerably cheaper.¹⁴⁷ She states that the Chinese influence was through styles as opposed to potting techniques.¹⁴⁸

2.5. THE MONGOLS

The Mongols are generally given a bad press, as they were the conquerors, and most commentators were the conquered, with little good to say about their oppressors.¹⁴⁹ But, their impressive effect on trade within this vast empire cannot be ignored, and is generally referred to as the *pax mongolica* or *pax tartarica*. The empire was divided

¹⁴² Allsen (1997), 2-3.

¹⁴³ *Ibid.*, 1.

¹⁴⁴ *Ibid.*, 11-12.

¹⁴⁵ *Ibid.*, (1997), 35.

¹⁴⁶ Lane (1957), 6-7.

¹⁴⁷ Kadoi (2009), 57.

¹⁴⁸ *Ibid.*, 50.

¹⁴⁹ Buell, Anderson and Perry (2000), 19-20.

amongst Chingiz Khān’s sons and successors, but the divisions that we recognize today were not defined at his death in 1227, rather they evolved, as Jackson has outlined.¹⁵⁰ Certainly by the fifteenth century the four *ulus* (Jochid, Toluid, Chagatayid and Ögedeid - see Map 1, page 31) are understood to have been well-established entities, as a history purporting to have been written by Timur’s grandson Ulugh Beg entitled *Ta’rīkh-u ulūs-i arba‘a-yi Chingīzī* (“History of the four Chingizid *ulus*”) attests.¹⁵¹ To put it simplistically, the thirteenth century was a period of assertion through force, and by the beginning of the fourteenth century the borders were better established, the old cities restored and new ones were emerging, trade routes were secured, and perhaps most importantly the administration geared to protecting and encouraging this trade. Added to this, the Īlkhānids under Ghāzān had converted to Islam, which removed a pretext for the Mamlūks to pose as ‘defenders of the faith’; a theme that is traced and succinctly argued by Anne Broadbridge.¹⁵²

2.6. CONTEMPORARY SOURCES

The main contemporary sources are written by Īlkhānid bureaucrats – Rashīd al-Dīn (d 718/1318)¹⁵³ and Ḥamd-Allah Mustawfī Qazvīnī (d 740/1339-40).¹⁵⁴ Ḥamd-Allah Mustawfī’s *Zafar-nāma*¹⁵⁵ is written in verse form, closely imitating Firdawsī.¹⁵⁶ He gives evocative accounts of what it was like to be travelling and campaigning with the Īlkhāns. His *Nuzhat-al-Qulūb* is a useful geography of Greater Iran. A little later there is al-Aḥrī’s history of the Jalāyirid ruler Shaykh Uways (r 757-76/1356-1374).¹⁵⁷ Another

¹⁵⁰ Jackson (1999), 13.

¹⁵¹ *Ibid.*, 15.

¹⁵² Broadbridge (2008).

¹⁵³ Boyle (1971).

¹⁵⁴ Le Strange (1915-1919); Ward (1983).

¹⁵⁵ Ward (1983).

¹⁵⁶ Spuler (1971), 122.

¹⁵⁷ Van Loon (1954).

useful document is Rashīd al-Dīn's controversial letters.¹⁵⁸ Edmund Bosworth has studied the minor dynasties of Sīstān, that add to the picture of life on the edges,¹⁵⁹ and two theses analyse the pressures on the eastern borders through contemporary accounts.¹⁶⁰ The list would not be complete without Professor Lambton's forensic studies of all these documents and many fiscal ones which add to the picture of life in fourteenth century Iran.

These are supplemented by the Egyptian geographer al-'Umarī (700-749/1301-1349),¹⁶¹ who compiled a comprehensive gazetteer of the Mongol world sourcing his information from 'reliable sources.' Lastly, there is the engaging chronicler, who travelled to all three political arenas and beyond, to India and China, the Moroccan jurist Ibn Baṭṭūṭa (1304-1368).¹⁶² In addition there are numerous European travelogues and trading accounts that help too.¹⁶³

2.7. COINAGE AND *WAQFIYYĀT* AS ADDITIONAL SOURCES OF INFORMATION

In the Islamic world coinage is a useful tool as it provides evidence for a ruler's claim to power. Other forms are colophons to manuscripts, foundation inscriptions and *waqfiyyāt*, or religious endowment documents. Histories can be exaggerated, edited, lost in translation or transcription, and are usually commissioned and sanctioned by the ruler or his advisers, and therefore, are frequently biased and unreliable. The rights of *khutba* and *sikka* (respectively the ruler's right to have his name mentioned in the invocation of God's blessing at the Friday prayer service and the right to put it on his coinage) were the standard formulae for announcing sovereignty in the caliphal period.¹⁶⁴ With the fall

¹⁵⁸ Dānešpažuh (1979).

¹⁵⁹ Bosworth (1994).

¹⁶⁰ Kempiners (1985); Potter (1992).

¹⁶¹ Lech (1968).

¹⁶² Ibn Baṭṭūṭa (1962).

¹⁶³ Jackson (2005).

¹⁶⁴ Album, Bates and Floor (1993), 20.

of the ‘Abbāsīd caliphate new coins acknowledged the Great Khan Möngke, in conjunction with the Īlkhānīd ruler’s name. This became the established system of legitimisation. At first this coinage was very local, and it was not until 674/1275 that Abāqā (r 663-80/1265-82) unified it, and later Ghāzān Khan introduced a standard coinage for the whole of Iran in 696-97/1297-98.¹⁶⁵ Album describes this as “one of the most sophisticated monetary systems ever developed in pre-modern times.”¹⁶⁶ The Īlkhānīds never turned to acknowledging the shadow caliph in Cairo after their conversion to Islam.¹⁶⁷

Rashīd al-Dīn’s endowment deed or *waqfiyya* is an invaluable source of information on the institutional social structure of his foundation.¹⁶⁸ He details daily rations for the labourers, employees and inhabitants – we learn that each of the thirty-five hospice residents is allocated two bowls of food for breakfast alone.¹⁶⁹ This confirms that there was a heavy institutional demand for a variety of table wares, especially individual bowls.

2.8. ISLAM AND THE ĪLKHĀNS

Ghāzān’s conversion to Islam instigated a prodigious building programme of charitable and monumental religious structures by the Īlkhāns and their administrators. Ghāzān and his trusted vizir Rashīd al-Dīn, established scriptoria attached to their foundations in the major cities, the most famous being those in Tabriz, at their respective funerary complexes, the Shām-Ghāzān and the Rab‘-i Rashīdī.¹⁷⁰ The chroniclers report that land reforms and tax exemptions revived the ailing agricultural economy. Trade shouldered

¹⁶⁵ *Ibid.*, 24.

¹⁶⁶ Album (2001), intro.

¹⁶⁷ Album (1974), 157.

¹⁶⁸ Blair (1984).

¹⁶⁹ *Ibid.*, 82.

¹⁷⁰ *Ibid.*; Hoffmann (1995), 287-296; idem (1997), 189-202.

the major tax burden, through the *tamghā* tax.¹⁷¹ This helped finance the *yām*, or postal system, which in turn facilitated communications throughout the empire. To encourage this renaissance of Iranian pride and prosperity the rulers commissioned their vizirs and their subordinates to write histories and instructed the royal scriptoria to produce illustrated copies of these, which included the traditional epic tales of the kings of Persia, or *shāhnāmas*. In the main the authors were Iranian bureaucrats, who cannot be wholly relied upon for accuracy in the interests of their personal survival.

2.9. MONGOL RULE

Thomas Allsen has demonstrated that Hülegü (r 654-663/1256-1265) was effectively a usurper, and that it had not been Mongol policy to establish a ruling dynasty in Iran.¹⁷² Allsen's account of these complementary nomadic dynasties ruling over the sedentary populations of Iran and China explores the respective influences and exchanges, but does not analyse the actual physical rule and administration of Iran. The fact that both the Jochid, and Chagatayid, branches of the Chingizid heirs had territorial claims on parts of Iran meant that the borders were never secure. The successive dynasts continued their peripatetic rule, and when their movements are analysed it becomes evident that they only had full control over a fraction of the territory. It was very much a question of divide and rule, and balancing the tribes against one another. Territories were farmed out to indigenous prominent families or Turco-Mongol princely families through an appanage system in return for military support. Turco-Mongol administrators worked alongside their Persian counterparts from the start.¹⁷³

¹⁷¹ For *tamghā* see Kolbas (1992), 582, wherein, interpreting Remler, she declares: "Specifically, the *tamghā* was used to support the royal household, royal stables and animals, treasury, manufactories, chief diwan salaries, salaries of the great amirs, salaries of the *urdū* functionaries, *iqṭā*, mail, grants and charity." Remler (1985), 157-77.

¹⁷² Allsen (2001b).

¹⁷³ Lane (1990), 459-482.

A study of Öljeitü's (r 704-716/1304-16) itineraries outlines his progression, and demonstrates the balance between sedentary and nomadic government.¹⁷⁴ Despite establishing a magnificent capital at Sultāniyya, Öljeitü and his entourage still needed to move between winter (*qishlāq*) and summer quarters (*yailāq*). This apparently kept his military machinery, with its vast mobile supplies of animal herds, content and in a permanent state of readiness, while providing the amusement of princely pursuits such as hunting and polo playing for his *amīrs* and *noyans*, who were central to his administrative machinery. The hunt was also highly organised, and a training tool for the military in archery and horsemanship.¹⁷⁵ Melville concludes that the stimulus for this nomadism was an economic one, in order to avoid the extremes of heat and cold for their herds, and thus protect these necessary supplies.¹⁷⁶ A map of his itineraries amplifies the relatively small area that Öljeitü actually covered during the course of his reign, which for most of this period consisted of winters in Baghdad and its surrounding area, summers in Mughān, and visits to Sultāniyya in between.¹⁷⁷ Foreign visitors' accounts of these *ordus*, or camps, indicate their size. Ibn Baṭṭūṭa records:

*".. - and we saw a vast city on the move with its inhabitants, with mosques and bazaars in it, the smoke of the kitchens rising in the air (for they cook while on the march), and horse-drawn wagons transporting the people. On reaching the camping place they took down their tents from the wagons and set them on the ground, for they are light to carry, and so likewise they did with the mosques and shops. The sultan's khātūns passed by us, each one separately with her retinue."*¹⁷⁸

However, these temporary encampments, despite their size, would have left almost nothing for the archaeological record, unless they returned to the same sites annually and erected some semi-permanent structures too; but peripheral strategic points were

¹⁷⁴ Melville, Charles (1990), 55-70.

¹⁷⁵ Lambton (1988), 254.

¹⁷⁶ Melville (1990), 55.

¹⁷⁷ *Ibid.*, Fig. 1, 58.

¹⁷⁸ Ibn Baṭṭūṭa (1962), 482.

guarded by more permanent structures such as the fortress at Ḥasanlū (described in Chapter 3, section 3.6.2). It is these settlements that provide information on fourteenth century material culture.

Another of Melville's articles draws attention to Mustawfī's *Ẓafarnāma*.¹⁷⁹ This was translated as part of a doctoral thesis and it provides further insight into Mongol peregrinations and rule.¹⁸⁰ It indicates that there was an established pattern for the heir-apparent to govern Khurasan, while the Īlkhān moved between Azarbayjan and Iraq.¹⁸¹ Khurasan, styled by Mustawfī as the "doorway to Iran,"¹⁸² was exposed to open hostility and machinations by the neighbouring Chaghatayids, and became a thorn in the side of Īlkhānid Iran, and there was almost constant unrest there in the fourteenth century.¹⁸³

Öljeitü's son, Abū Sa'īd, was effectively the last of the Hülegüids to rule Iran. Their line is said to have been destroyed by their excessive drinking and self-abuse amongst both males and females, which purportedly led to infertility and a shorter life expectancy.¹⁸⁴ Each generation had also ensured that their blood rivals had been eliminated. Abū Sa'īd's reign was punctuated with rebellion amongst his *amīrs*, but under the able vizierate of Ghiyāth al-Dīn (d 736/1336), Rāshid al-Dīn's son, in 722-3/1322-23 a peace agreement with the Mamlūks of Egypt was signed and formally acknowledged by the so-called treaty of Aleppo.¹⁸⁵ This initiated even greater trade, and cultural contacts between the two nations. Al-Nāṣir Muḥammad's desire to keep on good terms with Abū Sa'īd was put to the test when Chubān's rebel son Tīmūrtash fled

¹⁷⁹ Melville (1998), 1-12.

¹⁸⁰ Ward (1983).

¹⁸¹ *Ibid.*, 406 for Öljeitü and 599 for Abū Sa'īd.

¹⁸² *Ibid.*, 512.

¹⁸³ *Ibid.*, 640.

¹⁸⁴ Masson-Smith, (2000), 35-52.

¹⁸⁵ Jackson, P (1985), "Abū Sa'īd," *EIr* 1: 375 – brokered by the chief merchant (*Tājir al-Khās*) and slave trader, Majd al-Dīn Sallāmī. See Labib (1965), 71-72 ; 259.

to the Egyptian court, seeking asylum in 729/1328, after his father's death. He was put to the sword under the sultan's orders, in order to honour their agreement.¹⁸⁶ Despite this official peace, Melville has demonstrated that al-Nāṣir Muḥammad used al-Sallāmī's trade missions to the Īlkhānid territories to continue to send Isma'īlī *fidāwīs* (assassins) from their Syrian strongholds to murder the Mamlūk deserter Qarāsunqur until his death (most probably by his own hand) in 729/1328, which saved Abū Sa'īd having to send him to Cairo in exchange for Tīmūrtash's demise.¹⁸⁷

2.10. CIVIL ADMINISTRATION

Professor Lambton's seminal work on civil administration in Iran throughout the medieval period demonstrates that there was considerable continuity through the local bureaucrats.¹⁸⁸ Being a senior Persian bureaucrat was risky, and most fell to court intrigues. Tāj al-Dīn 'Alī Shāh was the only vizir to die of natural causes under the Īlkhāns.¹⁸⁹ When Rashīd al-Dīn and 'Alī Shāh shared a joint vizierate under Öljeitü they quarrelled so heatedly over army expenses for Khurasan that Öljeitü had to divide the fiscal empire between the two: Rashīd al-Dīn was assigned "Central and Southern Persia to the confines of Khurasan whilst 'Alī-Shāh was placed in charge of Northwestern Persia, Mesopotamia and Asia Minor."¹⁹⁰

The ultimate court in Mongol Iran was that of the *yarghu*, but the *sharī'a* courts still functioned.¹⁹¹ However, after Ghāzān's conversion Islamic government prevailed and the *dīwān-i qadā'* gained in importance.¹⁹² Ghāzān, in order to establish uniformity within the legal system, collated draft legal documents in volumes to be distributed to

¹⁸⁶ Boyle (1968), 411.

¹⁸⁷ Melville (1996b), 258.

¹⁸⁸ Lambton (1988), specifically pages 50-68 for the Wazirate, and 249-257 for Society.

¹⁸⁹ Boyle (1968), 409.

¹⁹⁰ *Ibid.*, 406.

¹⁹¹ Lambton (1988), 88-90.

¹⁹² *Ibid.*, 91.

the provinces.¹⁹³ Lambton comments that it is not known if these procedures were actually implemented but it does indicate a desire for uniformity within the state. Rāshīd al-Dīn's controversial letters (see section 2.11 below and Chapter 5, section 5.2.4) were likewise bound in a single volume to serve as a model for bureaucratic penmanship.¹⁹⁴

2.11. ANATOLIA AND THE ĪLKHĀNIDS

An aspect of Īlkhānid history that is difficult to establish is the position of Anatolia and their conquest of the Saljūqs of Rūm in the thirteenth century. Melville states that when:

*“...the Mongol general Baiju had annihilated the Seljuk army at Köseadağ, on Friday 26 June 1243. Mongol dominion in Anatolia was now a military reality, not just a diplomatic nicety.”*¹⁹⁵

However, it would seem that Baijū had been under orders from the Jochid ruler, Batū Khān (r 1227-1256), as Anatolia had hitherto been considered the Golden Horde's area of interest, yet the orders for the Īlkhānids to control the Saljūqs of Rūm came from Qaraqorum.¹⁹⁶ At Güyük's election to be *qāghān*, or great khan, in August 1246, he appointed Īljīkdāy as his representative in the west with responsibility over Anatolia, Georgia, Armenia, Aleppo and Mosul, which continued to be ruled by local rulers, responsible for paying tribute to Qaraqorum's representative.¹⁹⁷ Just over a decade later, with Hülegü's formation of the Īlkhānate, Anatolia came under his jurisdiction.¹⁹⁸ It was a valuable resource of essential pasture lands for the Mongols, besides many other raw materials, so the Īlkhānids gradually encroached on the Saljūqs as they became increasingly involved in succession crises, and reduced the Golden Horde's original hold on the area. After the Mamlūk victory over the Īlkhānid army at 'Ayn Jālūt in 658/1260, the Mamlūks started to harass the eastern provinces and demand tribute from

¹⁹³ *Ibid.*, 94.

¹⁹⁴ Soudavar (2003), 77-120.

¹⁹⁵ Melville (2009), 53.

¹⁹⁶ *Ibid.*, 54.

¹⁹⁷ *Ibid.*, 55.

¹⁹⁸ *Ibid.*, 57.

the Saljūqs too, taking advantage of a situation when the two Mongol states were embattled in the Caucasus.¹⁹⁹

Little has been written about Anatolia's economic and cultural life for this period - one key is found in Rashīd al-Dīn's letters.²⁰⁰ Although Morton has argued strongly that they are a fifteenth century fabrication, Soudavar's counter argument for their authenticity is persuasive.²⁰¹ Forty-seven of these fifty-three letters are addressed to Rashīd al-Dīn's sons, several of whom held administrative positions in Anatolia. He instructs them to establish pious foundations, improve communications, construct irrigation systems and build bridges. These letters indicate a high degree of administrative organisation and the vast wealth that was being accrued in eastern Anatolia.

2.12. THE SUCCESSORS TO ĪLKHĀNID RULE

When Īlkhānid rule effectively ended, Iran split up into several smaller states, most leaders ruled in the name of a Chingizid puppet khan. In reality this was a natural progression from the way regions were apportioned under the Īlkhānate. Mongol and Turkish princes were sent to the provinces as military governors,²⁰² and during the last years of Īlkhānid rule became increasingly independent and obstructive, as the central system fragmented. Border areas in Khurasan, Sīstān, and the Makrān, were subject to external pressures from hostile neighbours, and in the case of the latter two they had been permitted to establish minor indigenous dynasties to act as buffers. This period is confusing, and what follows is a simplified version of the intrigues and counter intrigues that went on in order to give an idea of the complexities involved. However, central to this confusion was an evident desire to emulate the Īlkhānid way of life and there is no

¹⁹⁹ Amitai (1999), 134.

²⁰⁰ Togan/Leiser (2006), 84-111.

²⁰¹ *Ibid.*, 86.

²⁰² Lambton (1988), 256.

reason to suppose that there would have been any radical stylistic changes and patronage continued.

2.12.1. Khurasan

Medieval Khurasan was a much larger area than the present day north-eastern Iranian province, and it encompassed parts of Turkmenistan and Afghanistan, with the four great cities of Balkh, Marv, Harāt and Nishapur.²⁰³ The Oxus or Amū Dārya defined its eastern border. It was treated separately administratively, and the revenues were not counted in with the state ones.²⁰⁴ As the doorway to Iran, Khurasan experienced considerable turbulence from the start of this era, which involved a conflict between the Īlkhāns and the Chaghatayids for supremacy in the region.²⁰⁵ Kempiners demonstrates how many diverse forces were at work during this period, and illuminates the complexity of these border areas. He defines three thematic issues at play:²⁰⁶

1. The border relationships between the Īlkhānate and the Chaghatayid Khānate;
2. The interaction between the various Mongol factions involved;
3. The strength of the indigenous institutions and resources.

The history of western Khurasan, a geographical area roughly equivalent to that of present day Khurasan, after the fall of the Īlkhānids, covers the so-called Sarbadārid rising, and their interaction with Mazāndarān, and the Ja'ūnī Gūrbān. The sources are sparse, and Masson Smith based his study largely on the coin evidence.²⁰⁷ The most

²⁰³ Le Strange (1965a), 382.

²⁰⁴ Mustawfī (1919), 32. However, Masson Smith (1970), 95- states that during 'Abu Sa'īd's reign, his vizir Ghiyāth al-Dīn insisted that they should be sent to the central treasury, and he cites this as one of the underlying causes of the Khurasanian uprisings after Abū Sa'īd's death.

²⁰⁵ Kempiners (1985).

²⁰⁶ *Ibid.*, 34-35.

²⁰⁷ Masson Smith (1970), 95.

recent, concise account of the Sarbadārids is Melville's entry in the *Encyclopaedia of Islam*.²⁰⁸ Alluding to the varied and contradictory accounts of this rule, he concludes:

*“It can most usefully be seen as an attempt at self-government among the indigenous population of western Khurāsān, faced with the disintegration of Mongol rule.”*²⁰⁹

The rising started in Bāshṭīn, a district of Sabzavār, on 9 *sha* 'bān 737/13 March 1337, when 'Abd al-Razzāk, the son of respected local notable, murdered a tax official. What ensued can be interpreted as reaction against fiscal repression, which became the common cause for diverse indigenous groups. However, despite the new rule, coins continued to be minted in the name of the Jochid Mongol ruler, Tughāy Tīmūr until 742/1342, and then briefly in that of his rival, the Chūbānid Sulaymān, before reverting back to Tughāy Timur; the first independent coinage was struck in 748/1348.²¹⁰ This break with the traditional format indicates the diverse tensions that existed in Iran at this time, and were to re-emerge over a century later under the Ṣafavids. In 783/1381, the last ruler, Khwāja 'Alī, keen on preserving what little remained, entered Timur's service, the new power in the east, who was soon to transform the political picture of the area.²¹¹ Unfortunately, the only known physical trace of this enigmatic dynasty is through its coins; according to Roemer the sources indicate that a Friday mosque was built in Sabzavār, and “a warehouse affording work for artisans,” which could possibly be better translated as “workshops.”²¹² Unfortunately the source is not footnoted.

The former splendour of the Juvayn area is attested by several early fourteenth century monumental Īlkhānid-style structures: the remains of Khosroshīr and Aq Qalā, which are described in Chapter 3, sections 3.13.1 and 3.13.6, respectively;²¹³ the two-

²⁰⁸ Melville (1997), 47-49.

²⁰⁹ *Ibid.*, 47.

²¹⁰ *Ibid.*, 48.

²¹¹ *Ibid.*, 49.

²¹² Roemer (1986a), 38.

²¹³ Wade Haddon (2004).

īwān complex at Faryūmād (section 3.13.4);²¹⁴ and the ruins of Shahr-i Bilqīs at Isfarāʾīn (section 3.13.9),²¹⁵ which are indicative of a sizable population and considerable wealth. They need to be investigated thoroughly to establish whether the archaeology matches the history. These settlements are relatively remote and have not been encroached upon by modern structures.

2.12.2. Īnjūids

The Īnjū dynasty of Shiraz is an example of how an indigenous family, already virtually independent, was able to profit from the internal fragmentation at the death of Abū Saʿīd. The name derives from the Turkish word *īnjū*, meaning ‘royal estates’.²¹⁶ The founder of the dynasty, Sharaf al-Dīn Maḥmūd-Shāh, was appointed by Öljeitü in 703/1304 to manage the royal estates around Shiraz, and by 725/1325 he had extended his sphere of influence over most of Fārs.²¹⁷ This apparently outraged Abū Saʿīd, and he summoned Sharaf al-Dīn to his presence, and replaced him.²¹⁸ However, his son, Ghiyāth al-Dīn Kay-Khusraw, who ruled in his father’s name, refused to hand over control of the province to this replacement. When Arpa Keʿūn (r 736/1335-36) succeeded Abū Saʿīd, he had Sharaf al-Dīn imprisoned and executed, and his two sons Amīr Jalāl al-Dīn Masʿūd Shāh and Shaykh Abū Iṣḥāq, who were with him at the *ordu*, sought refuge with the Jalāyirid Shaykh Ḥasan-i Buzurg in Rūm and Amīr Pādishāh in Diyār Bakr, respectively.²¹⁹

Over the next eight years an extraordinary complex struggle between the siblings ensued, with Abū Iṣḥāq emerging as victor and sole survivor.²²⁰ His nemesis was Mubārīz al-Dīn Muḥammad al-Muẓaffar, who resented Īnjūid designs on his

²¹⁴ Godard (1949), 83-114; Wilber (1969), 156-57, pl. 61; Adamec (1981), 172; and Adle (1999), 384-85.

²¹⁵ Bosworth, CE (1978), 107; and Adamec (1981), 227-28 and 606.

²¹⁶ Boyle (1971), “Īnju,” *EI²* III (1971): 1208 and <http://www.iranica.com/articles/inju-dynasty>.

²¹⁷ *Ibid.*; and Roemer (1986), 11.

²¹⁸ *Ibid.*, 12.

²¹⁹ Roemer (1986), 2.

²²⁰ Boyle (1971), 1209.

territories in Kirmān and Yazd, and took Abū Iṣḥāq prisoner and subsequently executed him in 758/1357.²²¹ Abū Iṣḥāq was a great patron of the arts, especially those of the book. Ibn Baṭṭūṭa comments that he was competing with the sultan of Delhi for his patronage of men of learning.²²² But he was rather disparaging about his relative lack of generosity with cash donations, and his grandiose building schemes.²²³ One can only conclude that Ibn Baṭṭūṭa, on departure, was not despatched with the usual gifts. On arrival his initial impression had been enthusiastic: “..one of the best of sultans, handsome and well-conducted, of generous character, humble, but powerful and the ruler of a great kingdom.”²²⁴

2.12.3. Muḏaffarids

Knowledge of this Persian dynasty has a solid base in fifteenth century writings.²²⁵ As both Miller and Manz indicate, besides Timur’s biographer Ḥāfiḏ-i Abrū (d 833/1430), there were three important works on central and southern Iran written by Sharaf al-Dīn ‘Alī Yazdī (d 858/1454), Ja‘far ibn Muḥammad ibn Ḥasan Ja‘farī (*Tārīkh-i Ja‘farī*) and Ibn Shihāb Shā‘ir Munajjim (*Jāmi‘ al-Tawārīkh-i Ḥasanī*).²²⁶ Ja‘farī also wrote a local history of Yazd, the *Tārīkh-i Yazd*, and Aḥmad ibn Ḥusayn ‘Alī Kātib wrote *Tārīkh-i Jadīd-i Yazd* a little later.²²⁷ The founder of the Muḏaffarid dynasty, Sharaf al-Dīn, was appointed by Ghāzān Khan to be commander of a thousand (*hazāra*) in Maybod, near Yazd, and later to guard the roads from Ardīstān to Kirmānshah.²²⁸ His son, Mubāriz al-Dīn, inherited his offices in 713/1314. Five years later he helped Kay Khusraw Īnjū overthrow the last *atabeg* of Yazd, Ḥajjī Shāh, and in 719/1319-20 was recognized as

²²¹ *Ibid.*, 13.

²²² Ibn Baṭṭūṭa (1929), 94.

²²³ *Ibid.*

²²⁴ *Ibid.*

²²⁵ Miller, Isabel (1989), 75-79; idem (1990); and Manz (2006), 267-81.

²²⁶ Miller (1989), 75.

²²⁷ *Ibid.*

²²⁸ Jackson (1993), 820.

civilian governor of Yazd by the Īlkhān Abū Sa‘īd.²²⁹ When Abū Sa‘īd died he found himself governor of the military too, and took over the fortress and treasury, confessing allegiance to the Chūbānid Pīr Ḥusayn.²³⁰ In addition, Pīr Ḥusayn rewarded him with the governorship of Kirmān, which he had to fight for, ousting the last ruler, Quṭb al-Dīn Nīkrūz. He took the city in 740/1340.²³¹ Quṭb al-Dīn rallied once more, with the help of Mu‘izz al-Dīn Kart, but again he was defeated and Mubāriz al-Dīn was assured the province of Kirmān too.²³² With the addition of Bām a little later, he controlled the trade route to India. By 745/1343-4 the Chūbānids had ceased to be a threat, and Abū Ishāq Īnjū was the only serious contender. The Īnjūids had tried to rally the Jāndār and Awghān tribes in support against the Muẓaffarids, but failed, and finally in a treaty of 747-8/1346 Mubāriz al-Dīn recognized Abū Ishāq’s sovereignty. The outcome of their protracted struggle, as noted above, was the Muẓaffarid acquisition of Shiraz and Isfahan, and the execution of Abū Ishāq in 757/1356.²³³ At this point, Mubāriz al-Dīn, keen to seek a legitimizing formula for his actions, applied to the shadow caliph in Cairo for formal recognition of his right to rule.²³⁴

Mubāriz al-Dīn’s ambitions did not rest with Fārs and Kirmān, and with the defeat of the Chūbānids in Tabriz by the Golden Horde, he set his sights on Azarbayjan in 758/1357.²³⁵ He defeated the Golden Horde general, Akhīchūk, but failed to hold the region due to a Jalāyirid threat.²³⁶ On his return south he was blinded and deposed by his sons, and there followed a period of internecine strife, which continued intermittently until 1 *rajab* 795/May 1393, when Timur executed all of the Muẓaffarid

²²⁹ *Ibid.*

²³⁰ Miller (1989), 15.

²³¹ *Ibid.*

²³² *Ibid.*

²³³ Jackson (1993), 820; Miller (1989), 22.

²³⁴ *Ibid.*, 23.

²³⁵ Jackson (1993), 820.

²³⁶ *Ibid.*

princes, with the exception of two, near Isfahan.²³⁷ Admittedly, in this forty-year period there had been successes, and alliances with the Jalāyirids to counter the threats from the Türkmen confederations in the west, and the internecine fighting, but according to the histories the overall picture is one of destruction. Despite this litany of political and physical conflict, the textile industry and trade prospered, and cultural life flourished under the Muẓaffarids. Using Yazd as a microcosm of activity in this period, it is possible to see that contrary to all expectation, due to good local government, active investment in agricultural resources and water supply, textile industry production actually increased.²³⁸ Many more mulberry trees were planted, thus it was possible to feed more silkworms, which greatly increased output of the raw materials. Miller, citing Mustawfī, adds that most men in Yazd were artisans and craftsmen.²³⁹ Once again, the histories overly exaggerated the situation.

2.12.4. Jalāyirids

The Jalāyirid dynasty was the only successful Turco-Mongol one after the fall of the Īlkhānids. Their great rivals, the Chūbānids, had limited success under Ḥasan-i Kūchuk b. Tīmūrtāsh (d 744/1343) and his brother Malik Ashraf.²⁴⁰ The name Jalāyir derives from a Turco-Mongol tribe and genealogies start with Īlkā Nūyūn, one of Hülegü's generals, who played a significant role in the Mongol conquests, and his offspring likewise supported the successive Mongol rulers.²⁴¹ The dynasty's official chronicler was Abū Bakr al-Quṭbi al-Aḥri (14th century).²⁴² They were linked with the Īlkhānids through marriage: Shaykh Ḥasan-i Buzurg, the acknowledged founder of this independent dynasty, was the son of Ḥusayn and the Īlkhānid princess, Öljeite, daughter

²³⁷ Miller (1989), 39.

²³⁸ *Ibid.*, 182.

²³⁹ *Ibid.*, 190, and Le Strange (1965), 284.

²⁴⁰ Roemer (1986a), 3; and Peter (2008).

²⁴¹ Masson Smith (1965), 401; and Roemer (1986a), 5.

²⁴² Van Loon (1954); see Ī. Aka's entry: <http://www.iranicaonline.org/articles/ahari-abu-bakr-qotbi-8th-14th-cent>.

of Arghūn, sister of Ghāzān and Öljeitü.²⁴³ Shaykh Ḥasan had been *ulus beg* (*amīr* of state) under Abū Saʿīd and Arpa Keʿūn, a title that he retained despite his eventual independence.²⁴⁴ After Arpa's untimely death he acknowledged puppet Chingizids, and for the last ten years issued his coinage anonymously, dying a natural death in 757/1356, and succeeded by his son Shaykh Uways.²⁴⁵

Initially the Chūbānids restricted Shaykh Ḥasan to Baghdad, but Uways extended his influence and territory to the Caucasus, keeping the Golden Horde in check. Throughout his reign he was pressed by his neighbours, especially the growing force of the Türkmen confederation of the Qarā Qoyunlū, to the west in Diyār Bakr. In his introduction to Al-Aḥri's manuscript, van Loon also credits Uways with promoting trade,²⁴⁶ and apparently he made considerable efforts to revive commercial enterprise in the devastated regions of Iran.²⁴⁷ The political effects on commerce have already been discussed in the section on coinage above; this is another example of the historians making false or exaggerated claims for their patron. In Tabriz the Jalāyirids are said to have built extensively, notably a mausoleum complex known as the Dimishqīyya. The Castilian ambassador, Gonzalez de Clavijo, who passed through in 807/1403 en route for Samarqand, refers to a 20,000-chamber building that was once Shaykh Uways's palace.²⁴⁸ Clavijo reported that much of Tabriz had been levelled by Timur's son, Mīrānshāh (1366-1408):

*“This enormous palace for the most part is still standing intact, and indeed it might have been hoped that likewise all those fine buildings in Tabriz would have been left to stand in their early condition, but unfortunately many have of late been pulled down by order of Mīrān Shāh that Prince who is the eldest son of Timur, but the cause will be explained later.”*²⁴⁹

²⁴³ Roemer (1986a), 5.

²⁴⁴ *Ibid.*

²⁴⁵ *Ibid.*

²⁴⁶ van Loon (1954), 11.

²⁴⁷ Roemer (1986), 7.

²⁴⁸ Minorsky/Bosworth (1998), 44; and Clavijo (1928), 153.

²⁴⁹ *Ibid.*, 153.

In addition, continuous occupation and the devastating earthquakes that Tabriz experiences intermittently have erased all traces of these complexes. In Baghdad the only extant examples of Jalāyirid architecture are the *madrasa* mosque and *khān* of the Amīr Mirjān.²⁵⁰ These were completed in 758/1357 and 760/1358, respectively, and have similar decorated brickwork to the thirteenth century Madrasa al-Mustanṣirīyya.²⁵¹

2.13. CONCLUSION

Throughout the second half of the fourteenth century the Jalāyirids maintained a measure of control over central and western Iran, and kept in check the Türkmen confederations to the west. Shaykh Uways' successors did not have as strong a hold on these territories, and their constant internal quarrelling created a vacuum that made Timur's eventual conquest relatively easy. Throughout this confusing period it is possible to trace a thread of continuity and to appreciate that commercial enterprises continued with little interruption. The main income was derived from silk production, trade in raw silk and manufactured textiles, the transit trade of pearls and luxury imports from the Arabian-Persian Gulf, perfumes, herbs, medicines, foodstuffs such as dried fruits and nuts, and slaves. The abundance of imported Chinese ceramics undoubtedly affected the demand for high quality wares, but that did not deter the pottery workshops from copying and imitating these imports. Containers were needed for medicines and foodstuffs, and the increased number of religious establishments and charitable foundations all required tablewares for their dining halls. The wealthy merchant classes would also have needed high-quality wares for their tables and kitchens.

A tantalising theme that is interwoven with these turbulent historic events is the question of religious leanings and the power of Ṣūfism. Time and again there are

²⁵⁰ Lloyd (1946), 10-12, plates in Arabic section; and de Favières, J-G (1971), 162, pl. 90; and Khalīl (1987), 46-50 and 75-77.

²⁵¹ *Ibid.*

references to Ṣūfī shaykhs acting as mediators or endorsers of political manoeuvres.²⁵² Blair remarks that Ṣūfism had become institutionalised by the fourteenth century.²⁵³ A fact well attested in such foundations as Rashīd al-Dīn's. Historians agonise over whether a dynasty had Shī'ite leanings or not.²⁵⁴ What is certain is that the Ṣūfī hospices, or *khānaqāhs*, served dervishes and merchants, and it would appear that in practice the wealthy merchants and bureaucrats financed these institutions, thus facilitating the ease of their travel, and their charitable donations invoked blessings on their ventures, themselves and their families in addition to securing potentially inalienable inheritance for them.²⁵⁵

The courts in their peregrinations, with all their paraphernalia, herds, supplies, and moving markets, would have absorbed ideas from diverse regions, and acted as the arbiters of taste, thus achieving a continuity of design and accounting for so many similarities from region to region. Economics and materials would have dictated whether it was possible to manufacture in one specific centre, or many, and with respect to ceramics the story will gradually unfold as the archaeological evidence is collected and collated. This mobility and the active trade and exchanges between the Mamlūk territories as well as those of the Golden Horde may also explain how decorative motifs were carried.

²⁵² Boyle (1968), 384, the Shaykh of Jām interceded to raise the siege of Harāt and advised the Karts to relinquish Naurūz to Ghāzān, or face the wrath of his forces; Potter (1992), 120, cites the blessings of the Shaykhs of Jām as being the psychological key for Timur's victory over the Karts in 1381, and 19: "The Jām Ṣūfis repeatedly played an important mediating role during conflicts between the Karts and the *Īl-khāns*, usually negotiating on the Karts' behalf."

²⁵³ Blair (1984), 82.

²⁵⁴ Mazzaoui (1972), 63-65 for a summary.

²⁵⁵ Golombek (1974), 419-30 for a summary of the system of patronage for these institutions – Golombek cites Ghāzān's fiscal reforms as being responsible for the availability of abundant surplus to finance these building programmes; Hoffmann (1997): 200, wherein she interprets Rashīd al-Dīn's munificence as conscience money; and Blair (1984): 67-90, which gives a hypothetical ground plan extrapolated from the list of functions and make-up of this complex at its inception, and an insight into its administration and furnishings.

3. ARCHAEOLOGICAL EVIDENCE IN IRAN

3.1. INTRODUCTION

This chapter focuses on Greater Iran; comparative archaeological information from her neighbours and trading partners is included in Chapter 4. In the fourteenth century the Iranian world encompassed the Persian Gulf ports, present day Iraq, eastern Anatolia, Transcaspia, and Khurasan up to the Oxus or Amū Daryā; thus including much of present day Afghanistan and Turkmenistan (see Map 1, page 31). Despite political rivalries between Iran and the Golden Horde territories, and those of the Mamlūks of Syria and Egypt, the archaeological and commercial evidence demonstrates that there was still considerable contact. In the words of Russian archaeologist German Fedorov-Davydov, when referring to contacts with the Golden Horde, “warlike operations did not obstruct trade relations with Iran.”²⁵⁶ Islamic sites and levels, with the exception of the Golden Horde ones within Russia, the German work at Samarra in Iraq,²⁵⁷ and Ba ‘ albakk, Lebanon,²⁵⁸ and Gertrude Bell’s study of al-Ukhayḍir,²⁵⁹ received little serious scientific attention until the 1930s. The French had had the only foreign government-sponsored team excavating in Iran since 1895, when they signed a convention with the Iranian government giving them this exclusive right. They had concentrated on the Elamite capital Susa.²⁶⁰ It was finally annulled in November 1927, thereby giving other nationalities a chance to explore Iran’s antiquities. Despite this French monopoly, under the guise of the Survey of India’s Boundary Commission, and the Telegraph Service, the British had made valuable observations and contributions to our topographical knowledge during this period. The published travels of Colonel Yate

²⁵⁶ Fedorov-Davydov (1984), 218.

²⁵⁷ The Golden Horde information is reviewed in Fedorov-Davydov (1984) and the German work in Northedge (1996), 229-258.

²⁵⁸ Wiegand (1921-25).

²⁵⁹ Bell (1914).

²⁶⁰ Stronach (1999), 88; and Hillenbrand (1998), accessed 21.6.2011.

in Khurasan and Sīstān,²⁶¹ and those of GP Tate in the latter,²⁶² make frequent references to extant antiquities. They were following in the footsteps of one of their predecessors, William Kennett Loftus, who had made small-scale soundings at Warka, in southern Iraq, and explored Susa.²⁶³

3.2. ESTABLISHMENT OF AN ANTIQUITIES SERVICE

The 1930s witnessed much archaeological activity. A Department of Antiquities was formalised in 1930, under the direction of French architect André Godard. The eminent German scholar Ernst Herzfeld was amongst the first to profit from the annulment. While the majority of foreign teams continued to explore pre-Islamic cultures, the Islamic levels were not totally ignored. A brief summary of the relevant fourteenth century levels will be listed below when discussing individual sites. Despite the introduction of a new antiquities law, commercial excavation permits were still being issued to Iranian nationals and continued to be until the 1960s.²⁶⁴ Thus, the unscientific plundering of sites continued legally, and the trade in antiquities continued to flourish. Indeed it was active in both fakes and forgeries, all too evident in museum collections today.²⁶⁵

World War II brought a halt to foreign archaeological activity, and serious scientific work was not fully resumed until the late 1950s. There is one account of a couple of survey seasons carried out in Sīstān, albeit from the Afghānī side, in 1949 and 1950-51, which included Islamic collections amongst observations made on earlier

²⁶¹ Yate (1900).

²⁶² Tate (1910).

²⁶³ Stronach (1999), 88.

²⁶⁴ *Ibid.*, 90; and Mahboubian (1970), intro. His father, Benyamin, died on 23 September 1969, having conducted over 100 “excavations,” most being at Islamic sites, viz: “Bezineh Gerd, Farahan, Soltanabad, Saveh, Aveh, Ray, Yaskand, etc.”

²⁶⁵ For a forgery example see Fitzwilliam C5-1969:

http://www.fitzmuseum.cam.ac.uk/opac/search/cataloguedetail.html?&preref=75389&_function_=xslt&_limit_=10, accessed 23.5.2011.

sites.²⁶⁶ Their ‘observations’ on the Iranian side were taken from Sir Aurel Stein’s notes of a visit he made in 1928. In the main, archaeologists have based their chronological results on historical accounts, and many readily believed the official historians’ graphic details of the utter devastation that these Mongol and Turkic armies inflicted on the populace. This led to a thirteenth century cut-off date for those sites reported to have been razed, which has caused some confusion in the preliminary pottery sequences for sites investigated. With a paucity of coin information in the earlier levels, there being an almost total lack of stratified copper coinage between 800 and the middle of the twelfth century,²⁶⁷ in most cases excavators have had to call upon Southeast Asian and Chinese imported wares to establish a relative sequence. Publications have concentrated on the fine wares, and little space has been given to the coarser, everyday wares. This aspect was being addressed by the late Andrew Williamson in the early 1970s, and his tragic death in Oman robbed the Islamic archaeological world of vital information on these pottery sequences. Derek Kennet’s and Seth Priestman’s work on his material currently housed in Durham helps to fill this void, and will be extremely useful for future work.²⁶⁸ Another field practitioner, who has diligently published his observations and results, is German architect, Wolfram Kleiss. His studies were carried out under the auspices of the Deutsche Archäologische Institut (DAI) in Tehran, and his many publications, which will be cited below as each site is discussed, greatly assist this study. He always includes the unglazed corpus too, giving a more balanced picture of each settlement’s ceramic culture.

²⁶⁶ Fairservis (1952); idem (1961); and Stein (1928).

²⁶⁷ Northedge (1996), 230.

²⁶⁸ Priestman and Kennet (2002): 265-67; and Priestman (2003a), 345-48; and Priestman (2005).

3.3. CURRENT SITUATION UNDER ICHTO

The events of 1979 caused yet another break in foreign archaeological activity, but Iran's Cultural Heritage and Tourism Organisation (ICHTO) has been gathering momentum, and is now extremely active. Regional museums and archaeological storage units have been established, whereas in the past much of this material was centralised in Tehran. The desire to study pre-Islamic sites and levels continues, and almost without exception, each excavator and academic interviewed declared him/herself to really be a "pre-historian," a term that seems to cover all Iranian periods prior to the coming of Islam. They maybe keen to find the pre-Islamic levels, but they are investigating many Islamic sites, aiming to consolidate the remaining structures and to educate visitors in the utility of archaeology, and how it can help to explain and confirm the ups and downs of Iran's historical events.

3.4. FOCUS OF STUDY

The focus of this study is the fourteenth century, for which knowledge of the archaeology is tentative, largely because of the historical expectations already mentioned above, and the fact that many existing buildings were reused, and claimed by their Timurid and Şafavid successors. Fortunately there are some structures and abandoned sites in more remote areas that remain untouched. The devastating December 2003 earthquake in Bām demonstrated how mudbrick structures can be reduced to powdered rubble in an instant with the force of severe tremors, thus removing all obvious traces of occupation. Such dramatic occurrences can account for the incidences of complete vessels being reported in chance finds, and a wealth of finds that lay undisturbed.

A pattern is emerging of a series of Īlkhānid military outposts established to protect trade routes, hydraulic installations, the key cities, and seasonal encampments.

The Turco-Mongol courts were frequently on the move, whether in search of pasturage, or to escape the climatic extremes. Their encampments may have left little material evidence, but the outlying fortified settlements did. They would also have provided accommodation for tax collectors and storage for vital agricultural resources that were the backbone of the economy. The indigenous population was settled, as was that of the Mesopotamian plains, who were frequently threatened by marauding bedouin, so required protection. One unknown is how devastating the Black Death was on the population in the middle of the fourteenth century. There is the odd tantalising reference, but no detailed commentaries. It is generally understood that it reached the Levant through the Golden Horde ports, but Fedorov-Davydov makes no reference to its effect on the Volga cites when discussing the archaeology of Selitryonnoye and Tsarevo,²⁶⁹ despite remarking on the evident population decrease by 1360. It would be difficult to quantify this archaeologically unless an excavator found a mass burial, and a physical anthropologist was able to establish the cause of death from the skeletal evidence.

Here follows an alphabetical list of sites by province yielding fourteenth century deposits, many of which were not visited in person: for these the information has been culled from published material. Much of the source material has been gathered from interviews with the Iranian directors or their colleagues during visits to Iran in 2002 and 2003.²⁷⁰ The list is by no means complete, but it is an attempt to collate the material available to date. One factor that cannot be ignored in this survey is the archaeologist's instinctive knowledge of excavated material, and his/her capacity to place specific wares into approximate chronological time frames, frequently without concrete

²⁶⁹ Fedorov-Davydov (1984).

²⁷⁰ These visits were assisted by travel grants from the British Institute for Persian Studies, and my stay in Tehran was greatly facilitated by accommodation in the Institute's hostel.

scientific support. The art historian relies on dated pieces, and builds up his/her corpus around these, whereas the archaeologist is faced with mounds of detritus, and different occupation levels, which act as chronological indicators. Williamson had seemingly arrived at this point from his intensive surveys of Fārs and Kirmān, and his two seasons excavating at Tepeh Dasht-ī Deh.²⁷¹

However, until a typesite has been identified and carefully excavated, these observations remain generalities. Even so, it is likely that regional variations will have to be accounted for, and many comparative sites will be needed. In numerous interviews I found that today's archaeologists repeated similar observations and identified diagnostic wares by specific historical periods, without hesitation. This methodology is dependent on the capability of the excavator, and is not appropriate for some of the more conservative practitioners interviewed, who failed to appreciate the importance and utility of stratigraphic excavation, in maximising the information that would have been available. But, it is easy to criticise, and one never knows the constraints, budgets, and political difficulties imposed upon the excavators at any particular time. For a valid evaluation it is necessary to apply the same critical approach for all archaeological activity.

3.5. ARDABĪL

3.5.1. The Shrine of Shaykh Ṣafī

Ardabīl suffered two sackings in the thirteenth century, firstly by the Georgians in 605/1209, followed by the Mongols a little over a decade later. It was then eclipsed by Tabriz as an administrative centre, and but for the birth of Shaykh Ṣafī-al-dīn Iṣḥāq in 650/1252 may have remained sidelined in perpetuity. It is thought that the tomb was

²⁷¹ See below under Kirmān.

built adjacent to an existing thirteenth century *khānaqāh*,²⁷² after Shaykh Ṣafi's death in 735/1334. Two separate excavations are known to have been carried out, but neither has been published to date in any detail. The first campaign was by 'Ali Sarfarāz in 1971 on behalf of the Iranian Archaeological Service.²⁷³ This is in the area known as the *shahīd-gāh*, to the northeast and east of the *chīnīkhāna* (Plan 3.1, page 38, domed building to east of number 2), which is thought to be a fourteenth century structure, and was later reused to house Shāh 'Abbās's porcelain donation. When I met Mr Sarfarāz in Tehran, in September 2002, he explained that they excavated a 2 x 4 metre trial trench to approximately four metres. He identified five levels, the upper most one below the surface rubble dating to the Ṣafavid period. In this they found incomplete skeletons which he proposed were the remains of the Ṣafavid soldiers butchered by the Ottomans at the Battle of Chālderān (920/1514). Level four was Īlkhānid, typified by blue and white pottery. He was emphatic that locally-produced blue and white wares started in the Īlkhānid period. He was probably referring to the same or similar wares found at Sulṭāniyya in their Īlkhānid levels (see Catalogue numbers 1.14.1 and 1.14.2 in Volume 2), he had no images or examples to show me.

Typically the Sulṭāniyya wares have a red calcareous clay body tempered with natural fine components including shell, quartz, iron-rich mica grains and oversize pieces of limestone;²⁷⁴ the body is covered in a thick white slip. The Īlkhānid dating is open to question, due to the long-accepted view that blue and white porcelain in Yuan China was not in production until the mid-fourteenth century. However, an article by Soudavar refuting Morton's theory that Rashīd ad-Dīn's letters were a forgery, throws more light on the possibility that unofficial Chinese blue and white may have been in

²⁷² Weaver (1986), 362 or <http://www.iranica.com/articles/ardabil> - accessed 23.6.2011; see also Morton (1974); idem (1975).

²⁷³ *Ibid.*, 363.

²⁷⁴ A typical river clay body according to RLAHA geologist Chris Doherty.

production earlier in the fourteenth century.²⁷⁵ This is explored in Chapter 5, section 5.2.4. Catalogue numbers 1.14.1 and 1.14.3 were photographed in the dig house at Sulṭāniyya. I saw many more registered pieces from previous seasons' excavations in the ICHTO's storage in Zanjān, which I was forbidden to photograph and only permitted to handle. The base fragment Catalogue number 1.14.2 was on the pottery mats on my last visit to Sulṭāniyya in 2003. It is evident that Sarfarāz, like his colleague Mirfatāḥ at Sulṭāniyya, chose to ignore the Timurid levels which they both consider not to be historically significant at the two sites.

Returning to Sarfarāz's stratigraphy, his level three was Saljūq, level two 'Abbāsīd, and level one virgin soil. It is not known where the pottery from this trial trench is stored; Tabriz is the most likely location. Enquiries were made in both the Tabriz Museum and the ICHTO offices, with a negative response, as those who might have been able to locate them were out of town on field trips. Since Ardabīl became a separate province in 1993 the policy has been to store any finds at the shrine.

The second excavation was to the west of the tomb complex, adjacent to the *chillakhāna* and conducted over five campaigns, starting in 1994, by Maḥmūd Mousavī,²⁷⁶ with the assistance of Ḥasan Yousefī, a local archaeologist with ICHTO, who acted as our guide, and a Japanese student, Katsuhiko Abe. This area had been selected for a new cultural complex. Early twentieth century shops were removed, and the foundations of four levels of earlier structures excavated to a depth of between four and five metres. Mousavī presented a brief account of this work at a conference in the British Museum in March 1998.²⁷⁷ I was able to have a quick look at their sherds, but the storeroom had been flooded, and the bags dumped in a domeless room, open to the

²⁷⁵ Soudavar (2003), 96.

²⁷⁶ Mousavī (2002), 16-19.

²⁷⁷ *Ibid.*

elements (number 13 on Weaver’s 1973 plan [Plan 3.1, page 38]), the new *chillakhāna* and annotated as such on Mousavī’s plan (see Plan 3.2, page 38) along with unwanted pieces of furniture, and general building debris (Fig. 3.1). Abe photographed the collection during the course of excavations, but at the time of my visit had failed to give Ardabīl any copies. He has since promised me digital copies, which have never materialised. The excavations revealed a series of drains, and water storage tanks, an Īlkhānid *khānaqāh*, and the so-called *sherbet-khāna* or *hashtī*, a small octagonal building built in burnt bricks to the north of the *khānaqāh*. Yousefī interpreted this as the vestibule to the whole complex. This is, however, at variance with the schematic plan produced by Weaver in 1970, based on the *Ṣarīḥ al-Milk* commissioned in 975/1567-68²⁷⁸ and Mousavī’s plan on page 19. They did excavate a small trench inside the *hashtī* and found nothing pre-Īlkhānid. Mousavī summed up the pottery finds immediately above the floor of the Īlkhānid structures:

*“The excavations of the area have revealed a considerable bulk of pottery belonging to the thirteenth and fourteenth centuries including sgraffito ware, blue and black ware of Kashan, Garrus ware, some minai, and lustre-painted ceramics.”*²⁷⁹

However, unfortunately in the few bags that I was able to examine they were largely fifteenth century and later, although there was one example of ‘Sultāniyya blue and white’, see Figure 3.2. It is to be hoped that a fuller publication will be produced. Yousefī has published a brief article recently, but only describes a Ṣafavid kitchen complex.²⁸⁰

²⁷⁸ See note 15, Morton (1974), fig. 2.

²⁷⁹ Mousavī (2002), 17.

²⁸⁰ Yousefī (2010), 28-30.

3.6. AZARBAYJAN

3.6.1. Baṣṭām (Urartu)

Baṣṭām lies due north of Khoy and Lake Urmīyya, and east of Van in the heartland of ancient Urartu (ninth to sixth centuries BC). According to the German excavators of this site, in the ninth/eighth centuries BC it was an Urartian staging post, and in the medieval period (ninth through thirteenth centuries) an Armenian fortress and village had been superimposed on the Parthian/Sasanian occupation levels, which was abandoned after the Mongol invasions.²⁸¹ However, the fineware pottery finds indicate fourteenth century occupation too.²⁸² These include an underglaze-painted panel style *albarello* (see plate 72.13)²⁸³ which verges on a Mamlūk shape (see Catalogue number 1.5.3.10 for a similar one) and a Golden Horde ‘peacock feather’ design (see plate 72.16²⁸⁴ and Catalogue number 2.4.6).

3.6.2. Ḥasanlū Tepeh

The first European to document this site was Sir Aurel Stein, following a visit on 8th September 1936.²⁸⁵ Between 1956 and 1962 ten field seasons were conducted on this largely Iron Age site under the directorship of Dr Robert Dyson, Jr., on behalf of the University of Pennsylvania Museum, the Metropolitan Museum of Art (MMA) and the Archaeological Service of Iran. However, the final report of Ḥasanlū Period I (late thirteenth and fourteenth centuries) was only published in 2004.²⁸⁶ This slim volume is an important synthesis, and a rare insight into the amount of information that can be extracted from a late medieval Islamic site. Even so, it was impossible to present a full pottery corpus, as Danti was limited by the selectivity of the excavators and noted that

²⁸¹ Kleiss (1990), 176-77.

²⁸² Strauss (1979), pl. 72, 9-17.

²⁸³ *Ibid.*

²⁸⁴ *Ibid.*

²⁸⁵ Danti (2004), xiii.

²⁸⁶ *Ibid.*

not all ceramic samples had been preserved. Unlike many of the *tepeh* sites in Central Iran, Ḥasanlū is not a dry, dusty mound. It is usually covered in dense grass, whose roots retain the archaeological fragments, and prevent the elements from eroding too much of the surface material. Danti summarises the site as follows:

*“Hasanlu Tepe appears to have been a small planned, fortified settlement occupied year-round by a fairly prosperous populace. It is difficult to ascertain the site’s function within the broader framework of the regional Ilkhanid settlement system given the limited archaeological dataset currently available for the region. However, the settlement’s apparent importance relative to its small size was probably also linked to its proximity to the Mongol winter camp of Jaghatu.”*²⁸⁷ (see Map 2, page 32 for location)

Despite the protective grass, the site had experienced some erosion and Danti estimated that the Īlkhānid (Period I) levels were thin, averaging 60cm in depth in the best preserved areas of the *tepeh*. A total of five buildings were exposed and a small section of the defensive wall. The best finds came from pits dug into Period I floors. The excavators recognized a single building period, with renovations and additional rebuilds; finds sealed by these rebuilds form their dating evidence, but unfortunately no coins were found. The ceramic finds were rich, with abundant examples of *lajvardīna* (see Catalogue numbers 1.9.5. and 1.9.6),²⁸⁸ along with underglaze-painted wares, lustre, and green-glazed *sgraffito* earthenwares that are paralleled at Takht-i Sulaymān and Sulṭāniyya (see Fig. 3.4); hitherto green-glazed *sgraffito* is thought to have ceased production in the thirteenth century at the latest, but this later context is an important marker in the history of *sgraffito* production, and one that is likely to support an extended time frame for this ware. Danti observed that these fine wares were not found at a contemporary hill fort in eastern Turkey, namely Taşkun Kale (*circa* 1300-1350),

²⁸⁷ *Ibid.*, 2.

²⁸⁸ See Catalogue section 1.9 Īlkhānid *lajvardīna* for the timespan and further details on *lajvardīna*.

excavated by McNicoll,²⁸⁹ and interpreted this as a distinguishing function between the two forts: with Ḥasanlū specifically serving the royal summer and winter encampments, with Īlkhānid officials and their families perhaps permanently settled there, and Taşkun Kale, which lacked domestic debris, serving as a garrison to protect the lines of communication. He also suggests that Ḥasanlū may have served as a *ribāṭ*, or rural caravanserai.²⁹⁰

Dyson also conducted a regional survey in 1956, which included Takht-i Sulaymān, prior to the German Archaeological Institute's excavations, and will be outlined below. Danti drew parallels with the division of living space, with four-*īwān* structures in both. The domestic ovens were identical. The University of Pennsylvania Museum possesses thirty-seven diagnostic sherds from the site, in which all the major groups are represented, with the exception of Ḥasanlū I buff ware.²⁹¹ Many of the so-called typically Saljūq or pre-Mongol *sgraffito* wares found at Takht-i Sulaymān, such as yellow, purple, and golden brown glazes, champlevé, and so-called Amol and Aghkand wares, are absent at Ḥasanlu. Danti's interpretation is that these were wares produced in areas devastated by the Mongols, which led to a break in ceramic tradition, whereas Azarbayjan was spared much of the destruction, and therefore pre-Mongol ceramic styles persisted. However, as no production site for these wares has been attested, and it is likely that they were made all over Iran, it is difficult to support such an hypothesis with our current state of knowledge, and the lack of the other wares at Ḥasanlū could be due to taste, fashion and geography. Or, it could be argued that most of these 'Saljūq' styles had ceased production by the mid-thirteenth century, and only the green-glazed *sgraffito* type persisted. We know that other ceramic wares, for

²⁸⁹ McNicoll, (1983).

²⁹⁰ Danti (2004), 64.

²⁹¹ *Ibid.*, 59.

example lustre-ware vessels and tiles, continued in production until 740/1339,²⁹² at least, so it could be that Danti is underestimating the importance of the evidence from this site. His initial premise is that it is solely Mongol and it is only the presence of the *sgraffito* material that makes him waiver. Two other sites near Ḥasanlū surveyed were Hajjī Firūz Tepeh and Dinkha Tepeh, which unfortunately are not marked on his location map (Map 2). Both were dated to the Saljūq period on the basis of their ceramic assemblages and one radiocarbon date.²⁹³ These assemblages had closer parallels with the Saljūq levels at Takht-i Sulaymān, than the Ḥasanlū material, but Danti has one final thought on this aspect:

*“One other sobering possibility that might bias regional settlement data would be the attribution of small sites with monochrome glazed ware and unglazed earthenwares to the later Saljūq period and sites with a similar assemblage with the addition of lajvardīnah ware to the early Ilkhanid, when in fact socioeconomic differences, rather than chronological variation, was responsible for the pattern.”*²⁹⁴

This is an interesting conclusion. He had already stated that Ḥasanlū was a single-period site, yet seemed loathed to take his argument one step further and admit the possibility of a proven lack of Saljūq material. Takht-i Sulaymān has evidently confused him, and we will see below that unlike Ḥasanlū there is no break in the sequencing from the Sasanian levels through to the Īlkhānid ones. There is no doubt that there is an element of socioeconomic or social differences indicated by the lack of finewares on some sites, and it is a topic that needs further study.

3.6.3. Marāgheh

According to Minorsky’s entry in the *Encyclopaedia of Islam*,²⁹⁵ the town was stormed by the Mongols in 618/1221; it was briefly occupied by the Khwārazmshāhs in

²⁹² Watson (1985), 196; three tiles of 739 listed, and one of 740/1339; however, the latest dated vessel is much earlier – 683/1284.

²⁹³ *Ibid.*, 62.

²⁹⁴ *Ibid.*, 66.

²⁹⁵ Minorsky (1991), 498-503.

622/1225, and retaken by the Mongols in 628/1231. By 656/1258 Hülegü had ordered the scholar Naṣīr al-Dīn Ṭūsī to supervise the construction of an observatory on a fortified hill to the west of the town. The site was excavated over three seasons during 1972, 1975 and 1976, and the observatory building is now covered with a light dome.²⁹⁶ All that remains is a circular ground plan, displaying foundation walls constructed with large river pebbles, and the inner divisions articulated with burnt bricks (see Fig. 3.5). I was unable to locate any of the finds, other than some lustre tiles on display in the local museum (Fig. 3.6); these are similar to the tile published in the two reports cited. Vardjavand assumes that it continued in use into the early fourteenth century, and cites Ḥamd Allāh Mustawfī's report in the *Nuzhat-al-Qulūb* that it had already gone out of use by 740/1340.²⁹⁷ He gives no detail of his finds or stratigraphy.

In the town there is a burnt brick tomb of the Mamlūk *amīr*, Qarāsunqur, who sought refuge with Öljeitü from the Mamlūk sultan al-Naṣīr Muḥammad in 712/1312. Öljeitü granted him Marāgheh,²⁹⁸ appointed him governor, and he died there in 729/1328. Excavations were carried out near the two tomb towers situated in the centre of the town and known locally as the Gunbad-i kābūd and Qoybūrj, by Dr Reza Nobarī of Tarbiat Modares University, Tehran, in 2002, where the foundations of a third tomb tower were revealed. As part of it lies under some modern buildings, work had had to halt. I found some typical Īlkhānid underglaze-painted wares - including a diagnostic T-rim decorated in black under a transparent turquoise glaze (see Fig. 3.8 for fragment) in a spoil heap; this was examined under a X10 magnification microscope by geologist

²⁹⁶ Vardjavand (1975), 119-24; idem (1979), 527-36.

²⁹⁷ *Ibid.*, 528.

²⁹⁸ Minorsky (1991), 501.

Chris Doherty at Oxford's Research Laboratory for Archaeology and History of Art (RLAHA), and identified as having a fine siliceous-paste body.²⁹⁹

3.6.4. Tabriz

Until 2002 the only official excavations since 1979 that had been carried out were in the area adjacent to the fifteenth century Blue Mosque. This is a rescue excavation triggered by discoveries made when commercial contractors started to excavate the foundations for a shopping complex. Our guide and informant was Mr Moḥammed Raḥmatpur, an archaeologist in the ICHTO office responsible for establishing a regional pottery store for both excavated and survey material. He and his colleagues were also in the process of producing an archaeological map of the area. Plans and permissions had just been granted to excavate the Rab' -i Rashīdī (see Fig. 3.9), and a rescue excavation commenced December 2003 directed by Dr Laleh Roohangiz.³⁰⁰ She has found extensive evidence of Īlkhānid, Timurid and Ṣafavid occupation.

3.6.4.1. The Blue Mosque

Excavations were in progress behind the Blue Mosque directed by Dr Nobarī who had been responsible for them for the past three seasons; they commenced in 1997, and serve as an annual training excavation for students. Dr Nobarī discussed his work with us, and demonstrated that the site had always been a cemetery, extending back to the first millennium BC, with Iron I, II and III levels of occupation (see Fig. 3.10). The Islamic sherds are all associated with small, simple graves, and not with any building. There was a scattering of underglaze-painted fourteenth century wares, but many more unglazed domestic wares, as to be expected. They had not established a detailed diagnostic assemblage for this period, there being a greater focus on the pre-Islamic levels. In the Tabriz Museum there is a didactic display of a typical archaeological

²⁹⁹ Carried out on 30.5.2012.

³⁰⁰ Roohangiz (2010). Grateful thanks to Dr Javad Golmohammadi for bringing this to my attention.

trench, drawing upon their finds, alongside a chronological typology of complete vessels stacked vertically. This highlights the fine wares, and demonstrates the lack of architectural structures in the subsequent levels (see Fig. 3.11).

More recently a French scholar, Sandra Aube, has published a study of the tilework of the fifteenth century Blue Mosque (founded 1465).³⁰¹ While this lies without the time frame of this study, it demonstrates continued tile production in Tabriz, and an active pottery industry (see Fig. 3.12). I should add that no fourteenth century siliceous-paste vessels specific to Tabriz have been identified to date to my knowledge, yet Abū 'l Qāsim Kāshānī, writing at the beginning of the century cites Tabriz as a manufacturing centre when describing suitable wood to fire kilns.³⁰²

3.6.4.2. *Mesjid-i 'Alī Shāh*

This was excavated by Safarāz in the 1970s, but not published. In an interview he reported that the building was unfinished,³⁰³ and that it had collapsed before the decoration was completed. His excavations revealed a square building, and the massive *qiblah* wall (see Fig. 3.13) he explained was not integral to the original building and he saw it as an addition. He added that Wilber's³⁰⁴ definition of the decoration was fanciful, "all a dream". He concluded that there were no useful ceramic finds. This is curious considering it was the tile decoration here that so impressed Aytamish that he was inspired to invite the tileworkers to Cairo around 1328.³⁰⁵ Ibn Baṭṭūṭa, who made a brief visit to Tabriz, was scandalised by the wealth of the markets, describes it thus:

"Afterwards we came to the cathedral mosque, which was founded by the vizier 'Alī Shāh, known by the name of Jīlān. Outside it, to the right as one faces the qibla, is a college, and to the left is a hospice. The court of the mosque is paved

³⁰¹ Aube (2008), 241-277.

³⁰² Allan (1973), 114.

³⁰³ My thanks to Dr Ahmed Chaychi of the National Museum, Tehran for arranging this interview during my 2002 study tour.

³⁰⁴ Wilber (1955), 146-8.

³⁰⁵ O'Kane, Bernard (forthcoming); Meinecke (1976-77), 85-144.

with marble, and its walls are faced with [tiles of] qāshānī, which is like zalīj;
..³⁰⁶

Perhaps the tilework had been removed and recycled during the turbulence of the fourteenth century or when Timur's son Mīranshāh wrought destruction at the end of the fourteenth century.³⁰⁷

3.6.4.3. Rab ' -i Rashīdī

Further to an initial season in 2003 under the directorship of Dr Laleh Roohangiz,³⁰⁸ in the summer of 2004 some twenty-two soundings were made, seventeen of which revealed architectural features dating between the Īlkhānid and Qajār periods producing some 4,100 tile and pottery fragments. A third season in 2005-2006 produced a further 6,500 ceramic fragments, most of them dating to the Īlkhānid period. The full report will be extremely important for the understanding of this area.³⁰⁹

It is evident that sufficient remains to gain an insight into the structures below the surface and the perimeter wall (see Fig. 3.14), which in turn will give invaluable stratigraphic information, if it is well excavated. The surface in one of the areas visited was littered with tile fragments, indicating a substantial structure. There is a small collection of similar tile fragments collected by Michael Rogers in Cabinet I, drawer 4 at the British Institute of Persian Studies (BIPS), Tehran, which I inspected briefly in September 2002 (see Fig. 3.15). These were collected in September 1966.

3.6. 5. Takht-i Sulaymān

This site, with its Sasanian fire temple, was excavated by the DAI under the directorship of Dr Rudolf Naumann between 1959 and 1978. The pre-Islamic structures have been well published, but the final report for the Islamic levels has yet to appear. Their work is

³⁰⁶ Ibn Baṭṭūṭa (1962), vol 2, 345.

³⁰⁷ Clavijo (1928), 153.

³⁰⁸ See above.

³⁰⁹ Roohangiz (2010).

well summarised in English by the Japanese scholar, Tomoko Masuya.³¹⁰ Their inference is that the Īlkhānid occupation was limited to the thirteenth century, but considering the attractions of this summer hunting camp it is unlikely that successive rulers and their courtiers did not continue to visit the site, albeit for brief periods during the summer months. Masuya refers to “three ‘Abbāsīd farmhouses” at the north end of the sanctuary, dating to the eleventh/twelfth centuries,³¹¹ and the German ceramicist, Rudolf Schnyder, has published Saljūq *sgraffito* wares excavated at the site, but it is not clear where they were manufactured.³¹² Mathias-Imbert reports that she had understood from the excavators that there was an earlier kiln dating between the eleventh and thirteenth centuries, the firebox of which was sealed by Īlkhānid paving, and that it had ceased to operate by the time Abāqā started building.³¹³

There is also a brief unpublished report on the stratigraphy of the 1973-74 season by Annagret Nippa.³¹⁴ She includes drawings of typical T-rim bowl profiles found in a “post-Abāqā ashtip,” thus confirming continued occupation into the fourteenth century.

I observed examples of ninth/tenth century ‘Abbāsīd lustre wares on display at the site in the so-called audience hall with its impressive carved red sandstone door jambs, southwest of the Dodecagon (see Plan 3.3, page 38), thus indicating fairly continuous occupation from the ‘Abbāsīd period, with the means, and capability, to import fine wares even at this early stage. Morgan proposed that these were brought by pilgrims who continued to visit the fire temple.³¹⁵ Two kilns were excavated north of the Sassanian fire temple, in a cruciform building constructed in reused Sassanian burnt

³¹⁰ Masuya (1997); idem (2002), 74-103.

³¹¹ Masuya (1997), 142-3, 147-8. ‘Saljūq’ or ‘pre-Mongol’ would be a more fitting nomenclature.

³¹² Schnyder (1974), 85-94.

³¹³ Mathias-Imbert (1992), 32.

³¹⁴ An unpublished, photocopied document in the possession of Alastair Northedge, and given to him by Dr Dieter Huff; the Berlin Museum has another copy, which I was permitted to photocopy.

³¹⁵ Morgan (2005), 19.

bricks. It produced both glazed and unglazed tiles, dated to the Īlkhānid period;³¹⁶ the excavators reported that one of the kilns was a muffle-kiln, and assume that it was used for affixing the overglaze enamels and gold leaf to the *lajvardīna* tiles, and possibly for the so-called Kashan lustre tiles.³¹⁷ Masuya believes that the lustre tiles were imported from Kashan, and adds that it was too cold in winter to manufacture them in situ.³¹⁸ It is not clear why she excluded the idea of summer production, especially when she was prepared to accept the manufacture of *lajvardīna* tiles which are equally complex technically and have the same siliceous-paste bodies. Certainly a gypsum mould for a double pentagon tile with a dragon chasing a flaming pearl was found in the potters' atelier,³¹⁹ indicating local production, and one for an animal figurine.³²⁰ An unglazed, moulded pilgrim flask and an unglazed sphericoconical vessel with a stamped design were illustrated, but no other vessels, other than schematic drawings in the proposed kiln reconstruction.³²¹ Huff in a more recent summary describes these workshops as producing wall and floor tiles as well as green-glazed pottery.³²² The fragments illustrated in Figure 3.16 are probably examples of this type; these are now in the pottery storage at the Tehran National Museum. According to the decorative evidence, the principal Īlkhānid building phase was thirteenth century, with the palace area being decorated with lustre tiles dated 670, 671, and 674 AH/1271-3 and 1275-6 CE, during Abāqā's reign.³²³ On the archaeological evidence Huff states that the town was abandoned in the fifteenth century, believing the area to have become depopulated due

³¹⁶ Naumann and Naumann (1976), 64.

³¹⁷ Naumann (1977), 103.

³¹⁸ Masuya (1997), 392.

³¹⁹ Morgan (2005), 26.

³²⁰ *Ibid.*, 64; and Naumann (1977), 106, abb 88.

³²¹ Naumann (1977), 111-2; see figs 95, 97 and 98.

³²² Huff (2006), 109.

³²³ Masuya (2002), 84.

to the Timurid wars at the end of the fourteenth century.³²⁴ Morgan in his thesis refers to this later Īlkhānid use as being by Šūfīs, but does not cite his source.³²⁵

ICHTO is continuing to work at the site; I had understood that this was largely restoration work, but an internet search revealed that a ten-member team in 2003 had started their third season:

“In the second season of the excavations, it was enlightened that under the reign of Ilkhanids, Takht-e Soleyman Complex, excluding the official section, was converted into a charitable township consisting of a bazaar, mosque, bathroom and a number of residential buildings around the northern gate. The complex located to the northeast of the present day city of Takab in West Azarbaijan province is one of the three major Zoroastrian fire temples.”³²⁶

In 2004 there was another announcement declaring that a sherd databank had been established for all the excavated sherds, but no link to access this was given.³²⁷ Their work has continued and there were two further press releases in 2006, and most recently a brief report published describing a fourteenth century Īlkhānid bath complex.³²⁸ Unfortunately there are no illustrations of the ceramics retrieved, and no further reference to the sherd databank. However, in a report dated 4 October 2006 Moradi stipulated that the finewares were imports from “other cities such as Kashan and Kerman”, while the glazed and other earthenwares were made in the workshop they excavated. In 2003 it was declared a UNESCO World Heritage site.

To conclude, the situation is confusing, but Nippa’s report establishes a corpus of fine wares found in a fourteenth century context that provides a framework for studying the excavated fragments stored in both the Berlin and Tehran Museums. I understand that the long-awaited full DAI report is forthcoming.³²⁹

³²⁴ Huff (2006): 110.

³²⁵ Morgan (2005), 19.

³²⁶ Iranian News Agency (28 September 2003), detailing the beginning of their third season.

³²⁷ <http://www.chnpress.com/news/?section=2&id=1289>, accessed 24.5.2011.

³²⁸ Moradi (2010); and <http://www.chnpress.com/news/?section=2&id=6710>, accessed on 2.9.2009 – this had two press releases, one dated 4 October and the other 9 October 2006.

³²⁹ Information from Yolande Crowe.

3.7. FĀRS

Fārs has been the focus of the most comprehensive regional surveys, which are summarised in the Sumner/Whitcomb article published in Stronach's festschrift volume.³³⁰ Whitcomb was appointed to continue Williamson's work on the Islamic material, and was able to incorporate some of the material into his thesis.³³¹

Unfortunately for the present study this covers the earlier periods - his co-authored article with Sumner encapsulates his analysis of site morphology, and summarises all the preceding studies that were available to Williamson. However, there is no evidence of any excavations in fourteenth century levels, other than those mentioned below.

3.7.1. Hormūz

Excavations in Hormūz started in May 1977 under the direction of Mr Hossein Bakhtiārī, and a brief report appeared in *Iran* in 1979.³³² In the same year Kleiss published a useful summary of a ceramics survey that he had made.³³³ The island was occupied as a trading port from the early fourteenth through to the seventeenth centuries, which should thus provide an ideal occupational sequence, but sadly no fuller publication has appeared to my knowledge. Twelve pottery kilns were reported, which were producing high-quality unglazed wares, deemed to be of exportable quality – apparently this porous ware was renowned for its properties of water cooling. This view is confirmed by Peter Morgan in his article on Old Hormūz.³³⁴ I understand that excavations have resumed more recently, but no information is available.

³³⁰ Sumner and Whitcomb (1999), 309-24.

³³¹ Whitcomb (1979).

³³² Bakhtiari (1979), 150-52.

³³³ Kleiss (1979), 369-79.

³³⁴ Morgan (1991), 78.

3.7.2. Qays (Kīsh)

The archaeology of Qays is equally enigmatic. Whitehouse published a brief report in *Iran* in 1976 of a visit he made in March 1974.³³⁵ This is confirmation that it was a major Īlkhānid port. Whitehouse reported on the pottery, thus:

“The pottery from Kīsh, collected under the supervision of Mr Peter Farries,³³⁶ is both rich and varied. Among the Islamic glazed wares by far the most common variety is a bowl with underglaze ornament of the type found in Bahrain. As at Sīrāf, the glaze seldom survives. When preserved, however, it is bluish green or green. The decoration is black and consists mainly of radial panels filled with cross-hatching, chevrons or groups of dots.³³⁷ Other varieties of glazed pottery include “late sgraffiato” ware (without pseudo-epigraphic ornament found at Sīrāf), wares with a white frit body and sherds of so-called “Sultanabad” ware decorated in either black and blue on white or black under a turquoise glaze. Mr Farries found one sherd each of minā’ī and lājvardīna ware, presumably from northern Iran.

The Far Eastern ceramics are no less interesting. They occur in large quantities; indeed, it was my impression that the eleventh to fourteenth century glazed pottery from Kīsh contains a higher proportion of imported material than does the ninth to eleventh century pottery from Sīrāf. Most of the Far Eastern material seems to date from the period of maximum prosperity between c. 692/1292 and 731/1330.”³³⁸

I could not find any further references to Qays, but I know that an Iranian team has been working there at the ancient settlement of Harireh under the directorship of Simin Lakpour.³³⁹ There was one press release posted on the CAIS website in 2005 that describes an Īlkhānid residential excavation at Harireh, which also identified a mosque and glass workshops.³⁴⁰ According to a 29th May 2006 press release the finds indicate trading contacts with Africa and China. In accordance with ICHTO policy the excavated buildings have been restored and consolidated in order to make it more comprehensible to visitors, see Figure 3.17. Although the island had been conquered by the ruler of

³³⁵ Whitehouse (1976), 146-7.

³³⁶ Farries took over from Williamson in Oman after his tragic death in 1973. According to Northedge (2007) he was last heard of in Italy in the 1990s but he has had no contact since then.

³³⁷ Typical black under transparent turquoise glaze, see type 1.4 in Catalogue.

³³⁸ *Ibid.*, 147.

³³⁹ CAIS news 29.7.2005; and <http://thepersiangulf.org/index.htm>, press release dated 1.5.2006.

³⁴⁰ “Ilkhanid dynasty site on Kish Island yields new artifacts,” *CAIS Archaeological and Cultural News*, posted 29 July 2005: <http://www.cais-soas.com/News/2005/June2005/21-06-new.htm>.

Hormūz in 626/1229, under the Ṭībī family, when Malik al-Islām (d 706/1306) was the Īlkhānid governor of Fārs, the island “enjoyed a brief, but spectacular renaissance as the commercial capital”.³⁴¹ A naval survey carried out in 1857, published in 1896³⁴² in the *Geographical Journal*, describes the remains of ‘Harira’ on the northeast part of the island, with its *qanats*, collapsing vaulted cisterns and the remains of a large mosque with a fallen minaret.³⁴³ The author noted a scattering of pottery fragments, including a considerable number of Chinese ones which he collected and deposited in the BM.³⁴⁴ These are with the Asia Department and I had a chance to study them in December 2011.³⁴⁵ They are all later, fifteenth and sixteenth century Ming wares - both blue and white underglaze-painted and five-coloured enamelled, *wucai* wares. This was an unexpected surprise, and contrary to all the historical accounts. It is impossible to know from this evidence whether these were from a single instance of a cargo being stranded or an indicator that the islanders continued to trade.

3.7.3. Qaṣr-i Abū Nasīr

This site, near Shiraz, was excavated by a team from the Metropolitan Museum of Art in the 1930s, and published posthumously by Whitcomb in 1985.³⁴⁶ This had its problems, in that Whitcomb had to rely on the pottery selected by the excavators, and it was a multi-occupational site. The Western Area was deemed to have thirteenth and fourteenth century material, and the expected ceramic finds are there, together with valuable numismatic evidence.³⁴⁷ No coloured-ground wares are reported, just lustred, underglaze-painted blue and black on white, and black under a ‘blue’ glaze - which judging from the decoration on the fragments illustrated, albeit in black and white,

³⁴¹ Whitehouse (2009), 15.

³⁴² Stiffe (1896), 644-649.

³⁴³ *Ibid.*, 644.

³⁴⁴ *Ibid.*

³⁴⁵ Grateful thanks to Jessica Harrison-Hall and Nina Harrison for giving me access to these.

³⁴⁶ Whitcomb (1985).

³⁴⁷ *Ibid.*, 34.

should read ‘turquoise blue’ - and cobalt wares, frequently with T-rims and moulded inscriptions on the exterior - and tiles.³⁴⁸

However, there is no irrefutable stratigraphy to tie them all together. Whitcomb takes a leap of faith in his report and suddenly these fourteenth century wares and coins are associated with a *Ṣūfī khānaqāh*. His argument is based on the building plan, which is very fragmentary. Instinctively I think his dating conclusions are correct, but those on the nature of the building are too speculative.

3.7.4. Sīrāf

The latest publication clarifies the late medieval history of Sīrāf.³⁴⁹ There is certainly some post-thirteenth century material. Tampoe had attempted to address the sequencing, but was not wholly successful as she was unable to see much of the pottery at first hand, and was heavily reliant on the excavators’ record cards.³⁵⁰ As Hormūz had superceded both Sīrāf and Qays, as the main Gulf entrepôt site, Sīrāf is unlikely to be as useful for the fourteenth century sequencing. Seth Priestman has now painstakingly and efficiently collated all the material housed in the BM, so access to it has greatly improved, and he will be able to display its enormous diversity in a future publication.³⁵¹

3.8. GĪLĀN

3.8.1. Samirān

This multi-occupational fortified site lies on the Qizil Uzūn, a tributary of the Sefīd Rūd. In the BM’s reserves there is a sherd collection from this site, collected by Michael Rogers and Ralph Pinder Wilson in the 1960s, with thirteenth/fourteenth century

³⁴⁸ *Ibid.*, 67.

³⁴⁹ Whitehouse (2009), 14-16.

³⁵⁰ Kennet (2004), 84.

³⁵¹ I am grateful to Priestman for sharing this ‘treasure trove’ on 9.2.2011.

samples, as well as Saljūq and Şafavid pieces. The site is described by Willey in his book on Assassin castles.³⁵²

3.9. GŪLISTĀN/ MAZANDARĀN

3.9.1. Tammishe

There is potentially relevant material here, but one short season in 1964 was insufficient to gain a clear picture of the site.³⁵³ Bivar and Fehérvári in their brief report published in *Iran* outline the history of Tammishe from the sources, and establish that “the location of Tammīsha is closely linked with that of the famous port of Ābaskūn. This place played a notable part in medieval trade between Iran and the Volga region, ...”³⁵⁴

There were no Golden Horde glazed wares published in the report, but I did find a complete bowl, albeit unprovenanced, in the Sārī ICHTO treasury (Catalogue number 2.4.3a/ b); such a find is to be expected on the Caspian littoral.³⁵⁵ There were certainly some fourteenth century underglaze-painted Iranian wares evident in the pottery published. More recent studies of the Gorgān and Tammishe walls have demonstrated that they are in fact Sasanian,³⁵⁶ but this certainly does not preclude a later Īlkhānid settlement and reuse of earlier structures.

3.9.2. Jurjān

The medieval city of Jurjān lies in the fertile Gorgān plain, watered by the Atrek and Gorgān rivers. It was excavated by Moḥammed Kiani during the 1970s, and is now being investigated by Jebrael Nokandeh of ICHTO. Unfortunately he was on a field trip when I visited Gorgān in 2003 and his young assistant, Mr Zangī, had been detailed to assist. He was unable to give any information on Jurjān itself, except confirm that they

³⁵² Willey (1963), 84.

³⁵³ Bivar and Fehérvári (1972), 35-50.

³⁵⁴ *Ibid.*, 38.

³⁵⁵ Sārī Treasury # 60.

³⁵⁶ Rekavandi et al (2008), 151-178.

had already had two seasons and that a third was about to start in which they planned to explore the outer defensive wall.³⁵⁷ I have found no further information on the internet for this work. Kiani in his publication detailed:

*“In the early 13th century A.D., Ğurgān was destroyed by the Mongols, but recovered under the Īl-Khānids. Ceramic production restarted using a combination of pre-Mongol styles and Mongol tastes. The lustre and underglaze painted wares of this period were made with thin bodies, and their decoration became simpler. Other types of pottery, such as Carved, Sgraffiato, Unglazed and Monochrome wares, continued to use more-or-less the old styles. Despite the invasion of Timur in 1393 A.D. production continued. During the later Īl-Khānid and Timurid periods, there also appeared new types of pottery such as blue-and-white and celadon wares, but these have not been found in great numbers.”*³⁵⁸

He excavated five kilns and a glass works, but has never published a technical evaluation. These were all updraught kilns, four circular and one rectangular in plan, with the usual kiln furniture including tripod trivets and pegs.³⁵⁹

3.9.3. Current Projects

Mr Zangī described their current projects which included a survey of all archaeological sites in the region based on the Swedish archaeological survey map from 1933 – see below.³⁶⁰ They are conducting systematic sherd counts and registering what sites are in immediate danger of agricultural or rural settlement encroachment. Figure 3.18 is a collection with typical fourteenth century material from a site called Pa ‘īn Killeh and is an example of how they are recording representative sherd collections, in addition to drawing their profiles.

3.9.4. Shāh Tepeh

In 1933 a Swedish team under the direction of Ture Arne spent three months surveying the Gorgān plain, a region they identified as the ‘Turkoman steppe’. They listed a total

³⁵⁷ This could have been the Gorgān wall – Nokandeh was part of that team – and not the city wall.

³⁵⁸ Kiani (1984), 69-70.

³⁵⁹ *Ibid.*, 35.

³⁶⁰ Arne (1945).

of 303 tepehs,³⁶¹ and chose a medium-sized one to excavate – Shāh Tepeh.

Unfortunately they only found evidence of early Islamic occupation dating to the eighth and ninth centuries.³⁶²

3.9.5. Turāng Tepeh

Extensive excavations were carried out by French archaeologists under the direction of Jean Deshayes at this multi-period site, which lies about 20km north-east of modern Gorgān, between 1960 and 1980.³⁶³ Pre-Mongol and Mongol levels were identified on the South Tepeh directly over Bronze Age level IIIC in two sondages, labelled D and E.³⁶⁴ The ceramic finds were studied by Gardin.³⁶⁵ He identified the Mongol level as VIII with underglaze-painted finewares represented by types 1.4 and 1.6, which he stated were useful diagnostics for dating purposes, as they are better documented than the kitchen wares.³⁶⁶ He drew comparisons with finds from Dehistan³⁶⁷ and Khwārazm.

3.10. ISFAHAN

3.10.1. Friday Mosque

The Italians worked on the conservation of the Friday Mosque in the 1970s, under the directorship of the late Eugenio Galdieri. In the course of their work they undertook various excavations and the finds are currently being studied and will be published shortly.³⁶⁸ Martina Rugiadi, who is working on the pottery, reported that they do not have secure contexts for the Īlkhānid material, but they do for the eleventh century Saljūq ones.³⁶⁹

³⁶¹ *Ibid.*, 15.

³⁶² *Ibid.*, 342.

³⁶³ Boucharlat and Le Comte (1987), 8.

³⁶⁴ Gardin (1987), 153.

³⁶⁵ *Ibid.*

³⁶⁶ *Ibid.*, 158.

³⁶⁷ Atagarryev (1986), 124.

³⁶⁸ Rugiadi (2009) – email correspondence.

³⁶⁹ Rugiadi (2010).

3.10.2. Kashan

Kashan is the eponymous site for all fine siliceous-paste wares, but as it has been continually occupied there has been little chance to explore its archaeological remains. Bahrami recorded some chance finds there during building works, which inspired further investigations by property owners.³⁷⁰ He claimed it was possible to date the kilns by the shape of the bricks and their findspot.³⁷¹ He goes on to say that most of these Saljūq kilns were found within existing properties, sometimes under Şafavid structures, without taking into consideration the possibility of Timurid or Īlkhānid levels in between. He does include one polychrome coloured-ground type 1.3 base fragment from a kiln on the Darb-i Zanjīr.³⁷²

3.11. KIRMANSHĀH

3.11.1. Bīsūtūn

Bīsūtūn is located along an ancient trade route linking the Iranian high plateau with Mesopotamia and features remains from the prehistoric times to the Median, Achaemenid, Sasanian, Īlkhānid and Şafavid periods, including the famous monumental relief of Darius I, King of Persia, representing the king's victory over the usurper Gaumāta and the nine rebels.³⁷³ The Īlkhānid rulers built a kiosk at the site facing the river in burnt brick and with a tiled interior. Mustawfī records that the capital of Kurdistan, Sulṭānabād Jamjamāl founded by Öljeitü, lay to the south of Bīsūtūn.³⁷⁴ The kiosk was excavated and published by the DAI.³⁷⁵ Amongst the pottery finds the excavators identified a T-rim bowl with type 1.4 decoration;³⁷⁶ a panel style lotus bowl,

³⁷⁰ Bahrami (1938), 218.

³⁷¹ *Ibid.*, 219.

³⁷² *Ibid.*, 225, fig 140.

³⁷³ Schmitt (1989).

³⁷⁴ Mustawfī (1915-1919), vol 2, 511.

³⁷⁵ Lushey-Schmeisser (1996), 221-40.

³⁷⁶ *Ibid.*, 230-32; figs 9 and 11. She dates this to the 13th century, despite the fact it was found with other 14th century material.

type 1.5.3;³⁷⁷ and several coloured-ground fragments (types 1.1 and 1.3 – see Catalogue numbers 1.1.3 and 1.1.2 for illustrations).³⁷⁸ The T-rim bowl was dated to the thirteenth century, despite dating the other pieces to the fourteenth century, and the suggestion that the kiosk is probably connected to Öljeitü’s newly founded capital of Kurdistan, Sulṭānabad.³⁷⁹

3.11.2. Kangavār

Located midway between Kirmanshāh and Hamadān, this site is best known for its ‘Anahita Temple’ which dominates the town.³⁸⁰ The site was excavated over seven seasons between 1968 and 1978 (five under the direction of Kambakhsh-e Fard and two under the late Massoud Azarnoush).³⁸¹ This largely Parthian and Sasanian site was occupied by successive Islamic rulers although the Īlkhānid remains are reported to be “few and scattered”.³⁸² These results are based on a single sounding.

3.12. KIRMĀN

3.12.1. Dasht-i Deh

When the Harvard Expedition was working at Tepeh Yaḥyā in 1970, the late Andrew Williamson was invited to investigate an area of approximately 500 x 700 metres with a surface scatter of Islamic pottery dating between the ninth and fifteenth centuries, about 5km southeast of the main site.³⁸³ In his first season a 4.5 x 4 metre trench was excavated to natural clay: three occupational levels were revealed, the last dating to the fourteenth century. A second season was carried out in 1971 over a three-month period.³⁸⁴ Williamson described his findings in *Excavations in Iran: the British*

³⁷⁷ *Ibid.*, 232, fig 12.

³⁷⁸ *Ibid.*, pl 50.

³⁷⁹ Lushey (1990), 297.

³⁸⁰ Azarnoush (1981), 69.

³⁸¹ *Ibid.*, 71-72.

³⁸² *Ibid.*

³⁸³ Williamson (1971), 182.

³⁸⁴ Williamson (1972a), 177-78.

Contribution, a catalogue for an exhibition organised for the Sixth International Congress of Iranian Art and Archaeology held in Oxford in 1972:

“The surface pottery dates from the ninth-fifteenth centuries AD, but the dominant feature, the 53 m. sq ‘central building’, is of the thirteenth and fourteenth centuries. Excavations which have so far been limited to this building reveal it as a large fortified structure on two floors defended by a double wall 2m. thick and reinforced by a glacis sloping into a moat which probably originally held water. This building was destroyed by fire probably towards the end of the thirteenth century, but was replaced shortly afterwards by a single story structure built over the debris and re-using the largely intact exterior wall. Less than a hundred years later the second building too was destroyed. Both destructions seem to have been so sudden that all types of household objects and decorations were abandoned on the floors (fig. 30). The wealth of these finds indicates that the building was the residence of some very important provincial figure. Of even greater interest, they provide large and varied groups of stratigraphically associated material of considerable value in permitting the archaeological and chronological study of the Ilkhanid period so little known from previous excavation.”³⁸⁵

The importance of this work cannot be overemphasised, and must account for Williamson’s confidence in dating much of his survey material for the late medieval period. In his brief report on his second season,³⁸⁶ he illustrated a typical T-rim bowl, a siliceous-paste imitation celadon piece, with a fluted exterior “in imitation of the Chinese late Sung ‘lotus bowls’ imported in large quantities in south eastern Iran in the 13th century AD.”³⁸⁷ He reported that the foot ring was drilled and proposed that this was for display purposes. Interestingly he noted that the turquoise and black wares were less common than the “blues, purples and greens on a white ground.”³⁸⁸ This colour combination is exactly that of the Ghubayrā bowl, Figure 5.12. So perhaps this is an example of a Kirmānī provincial ware. He does not report any coin finds to support his dating of this well-stratified excavation.

³⁸⁵ Williamson (1972b), 28.

³⁸⁶ Williamson (1972a), 177.

³⁸⁷ *Ibid.*, pl. XIIb.

³⁸⁸ *Ibid.*, 177.

3.12.2. Ghubayrā

This is a multi-occupational site, and the excavators concentrated on the areas with visible structures.³⁸⁹ The citadel area was their principal focus for the fourteenth century occupation and the excavators are confident of their dating, largely due to the fact they found no earlier examples of Kashan underglaze-painted wares, datable to the twelfth and thirteenth centuries;³⁹⁰ wares are labelled Īlkhānid and Muẓaffarid, seemingly due to relevant coins being found in much the same area, but not in any stratified context. The other supporting argument for this dating is an historical one: Timur is reported to have destroyed the area in 795/1393, and the excavators assumed that this was the case for the citadel too.³⁹¹ The pottery catalogue is selective, apparently due to the large amounts of fragments retrieved. There is a useful corpus of fine wares for comparative purposes, but the overall conclusions cannot be supported scientifically. This is unfortunate, because instinctively I agree with them, but need more proof for my argumentation. There was one distinctive underglaze-painted T-rim bowl found in room 3, designated a kitchen (see Fig. 5.12).³⁹² It is now housed in storage at the National Museum, Tehran, and I was able to examine it in 2003. It has a coarse calcareous clay body, with a poor glaze, and although the shape is typical thirteenth/fourteenth century Iranian, it is certainly a provincial copy, as acknowledged by the excavators. Its decoration is painted in blue, turquoise and aubergine on white, yet in the final report it is described as “black, blue and green.”³⁹³ The discrepancy in colour description is another subject that is discussed in the Catalogue.

³⁸⁹ Bivar (2000); and Bivar and Fehérvári (1974), 107-141.

³⁹⁰ Bivar (2000), 151.

³⁹¹ Conversation with Professor Bivar, November 2004.

³⁹² Bivar and Fehérvári (1974), 126, pl VIIa.

³⁹³ Bivar (2000), 152.

3.13. KHURASAN

The archaeological unit in Khurasan, headed by Mr Labbaf in 2003, is an impressive force and appears to be working at most of the major sites. There was talk of establishing a website to monitor their work, but I have yet to find it. On my first visit to Mashhad Mr Labbaf was out of the country, but he had instructed all his colleagues to assist me. Towards the end of my stay in Iran I managed to arrange to fly back to Mashhad for the day to meet with him and investigate the regional pottery stores in Robaṭ-i Ṭoraq. Even on this visit it was only possible to have a twenty-minute meeting.

3.13.1. Aq Qalā

This site was recorded by Colonel Yate in the late 1890s.³⁹⁴ It was “marked in large letters on the map,” but all he found was a ruin which he describes:

“It consisted of a high-walled, massive citadel about 200 yards square, with a deep ditch and to the north of that, and joined on to it, a walled town from 600 to 800 yards square. The gate of the citadel opened into the town and riding through, one found oneself in the midst of a mass of ruined buildings that must have been fine and lofty in their day. The citadel was full of ruined walls and broken-in domes and vaults, much being wantonly destroyed by people digging for burnt bricks. The town was built almost entirely of unburnt brick with the exception of a fine Musjid in the centre, sixty yards in length, which still stood almost entire. It was curious to find such a large fine place, so new-looking and so regularly built all in rectangular lines, and yet so utterly deserted.”

Since then Aq Qalā has disappeared from the maps, and was not reported by Kleiss in his survey of the area published in 1996.³⁹⁵ The walled settlement is in fact to the south of the mosque, and not the centre. Mr Labbaf has surveyed the site, and put down small soundings, and Adle has visited it briefly, but neither has published anything to date. The only information that I managed to gather from Labbaf was that there is only simple pottery around the mosque, no residential area, and the occupation was short

³⁹⁴ Yate 1900, 393.

³⁹⁵ Kleiss (1995-96), 369-92; plates 47, 1-55, 3.

lived. The *kohandiz* or citadel has a nineteenth century foundation. The mosque, which is said to have been constructed in 712 AH (see Fig. 3.21 for an inscription with a possible date),³⁹⁶ is an interesting structure with three rows of five domed bays flanking the main, large-domed *qibla* bay (Fig. 3.19). The entrance is a massive *īwān* some 20 metres high (Fig. 3.20). The foundations of a second *īwān* were apparently traced opposite this, but this was not confirmed by Labbaf. Our meeting was too brief and hurried to gain a clear picture. The site certainly deserves greater attention. There was no time to take measurements and draw up a rough plan.

An announcement appeared on the CAIS website in 2005³⁹⁷ declaring the site to be in danger and an appeal was launched to instate it on UNESCO's World Heritage list, equating it with Sulṭāniyya, adding that they were thought to be contemporary. To date it has not been included on the list.³⁹⁸

3.13.2. Atrek Valley

This is the ancient Hīrand Valley, and mentioned by Aubin in his article on trade routes in Khurasan.³⁹⁹ A team from the University of Turin conducted surveys in this region of Iranian north-eastern Khurasan, north of Nishapur, and south of Bojnurd, in the years 1976, 1977 and 1978. Their principal aim was to record the pre-Islamic sites, but they included Islamic ones as well.⁴⁰⁰ These were summarised in a Masters' thesis by Alessandra Perruzetto completed in the academic year of 1995-96.⁴⁰¹ Perruzetto uses a tri-partite division of the Islamic period up to the sixteenth century: I – ninth to eleventh centuries: Tahirids and Ghaznavids; II – eleventh to fourteenth centuries: Saljūq to

³⁹⁶ This dating was confirmed by 'Alī al-Anisi, an employee of ICHTO and then a PhD student of Prof Hillenbrand's at Edinburgh University, at the 2004 BIPS Oxford Workshop, where I gave a paper on some of these archaeological findings.

³⁹⁷ <http://www.cais-soas.com/News/2005/July2005/30-07-ilkhanid.htm>.

³⁹⁸ <http://whc.unesco.org/en/statesparties/ir>, last viewed 14.7.2012.

³⁹⁹ Aubin (1971), 115.

⁴⁰⁰ Ricciardi (1980), 52-72.

⁴⁰¹ Perruzetto (1995-96). I am grateful to Alastair Northedge for bringing this to my attention.

Īlkhānids; III – mid-fourteenth to sixteenth centuries: Timurids and Ṣafavids. It is only an inventory of sites, with a few illustrations of typical wares. While it does not present any conclusive archaeological evidence, it does confirm the presence of typical fourteenth century siliceous-paste wares: both the geometric type 1.6 wares, and the floral Ṭūs wares, type 1.13, which are described in the Catalogue in Volume 2.

3.13.3. Bīrjand

While this city has no Īlkhānid remains, the Director of Bīrjand ICHTO, Mr Mokarrami, is extremely active, and their pottery storage was most instructive. On my visit in September 2003 he explained that his archaeological unit is concentrating on the multi-occupational site of Nehbandan, around 200km south-east of Bīrjand. For the time being they are consolidating the existing structures, on the lines of the work on the citadel at Ṭūs, which will be described below⁴⁰². Their next step is to apply for an excavation permit. The Bīrjand Museum has a number of interesting fourteenth and fifteenth century bowls, all accessed through chance finds in the region, and known provenances. They reported that several had come from Islamic burials, by the deceased's head. It was not altogether clear whether this had been intentional, or coincidence. Mr Mokarrami favoured the former. Many of the *tepehs* I noted have been used as burial sites doubtless to avoid using any valuable agricultural land.

3.13.4. Faryūmad

Faryūmad lies in the extreme west of Khurasan, and in the middle of the fourteenth century became the regional capital of Juvayn, despite being to the west of the Juvayn plain.⁴⁰³ The site is relatively well-known and samples of its tile and brick work from its Friday mosque are on display in the Tehran Islamic Museum. Its plan has been

⁴⁰² Mokarrami did say that they were setting up a website, but currently all the ICHTO sites are unobtainable - <http://www.birjandmiras.ir/eng/content.htm> - last checked 27.7.2012.

⁴⁰³ Spooner (1965), 101.

published by both Godard and Wilber.⁴⁰⁴ More recently the mosque's two-*īwān* structure has been extensively restored by the Iranian authorities (Fig. 3.23). A large citadel area lies to the east of this settlement, which appears clearly on Eric Schmidt's 1937⁴⁰⁵ aerial photographs and is noted by Kleiss in his survey.⁴⁰⁶ There was no time to investigate this. Adle confirms in his *Encyclopaedia of Iran* entry for Faryūmad⁴⁰⁷ that no archaeological investigation has been conducted to date, but he made a preliminary survey in 1998. Adle concludes that all evidence indicates a Mongol period site. While there is no date on the mosque, Adle assumes that it was commissioned by the vizir 'Alā-al-Dīn Moḥammad Faryūmadī, who was appointed by Abū Sa'īd in 728/1327-28 and executed in 742/1342 by the Sarbadārs.

3.13.5. Hydraulic Structures

A brief article by William Clevenger on dams in Khurasan outlines the existence of several massive structures, some of which had fourteenth century foundations.⁴⁰⁸ He concludes that they are indicative of public works of a highly organised society, and thus provide evidence to argue against the received opinion of chaos in fourteenth century Khurasan. Few have acknowledged patrons, but that at Salāmī, near Harāt, was constructed by Ghiyāth al-Dīn Kart (r 706-725/1306-1324), and repaired by Sulṭān Abū Ghāzī Ḥusayn Bayqārā (r 878-912/1473-1507).⁴⁰⁹

3.13.6. Khosroshīr

When Yate was in the vicinity of Khosroshīr he was too busy hunting to explore the ruins, so there is no description from him. Adle requested Labbaf's team to try to conserve what remains of this splendid structure. Today all that remains is a massive

⁴⁰⁴ Godard, André (1949), 83-114; Fig. 65 for plan; and Wilber (1969), 102, 156-7; pl 61.

⁴⁰⁵ Schmidt (1940), pl 61.

⁴⁰⁶ Kleiss (1995-96), 389, fig 29.

⁴⁰⁷ Adle (1999), 384-85.

⁴⁰⁸ Clevenger (1969), 387-94.

⁴⁰⁹ *Ibid.*, 393.

īwān with traces of fine Īlkhānid carved plaster work (see Figs 3.24, 3.25 and 3.27). The sherd collection in Figure 3.26 is from ICHTO's office in Mashhad. The ground is littered with thirteenth/fourteenth century sherds, but there is considerable disturbance around the site, and Adle fears his action may have encouraged the 'amateurs' to come in and explore the area.⁴¹⁰

3.13.7. Nishapur

Mr Labbaf's archaeological assistant, Mr Maḥmūd Bakhtiārī, reported in September 2003 that they had had four seasons (started in 1379/1999) at Shādyākh. This covers some 36 hectares. He used an architectural *maquette* of the whole area, to explain their findings. Their principal aim in excavating is to establish a comprehensive history of this much visited area, which includes the tombs of 'Umar Khayyām (1048-1131) and Farīd al-Dīn 'Aṭṭār (1145-*circa* 1221). They plan to establish an outdoor museum with didactic displays of the archaeological material to help visitors understand the importance of their work. They have defined five periods of architecture within well-stratified levels terminating in the thirteenth century with the Khwārazmshāhs. The Īlkhānid material is sparse, and limited to surface finds. Mr Bakhtiārī believes that the entire city moved to its present location after the earthquake of 679/1280.⁴¹¹ They found plenty of evidence for this calamity, with crushed bodies in the debris. The fifth season was due to start later in the month, and they hoped to begin investigating the walled city or *kohandiz*, or what is popularly believed to be 'Umar Khayyām's library (Fig. 3.28). He said that they would post their results on the ICHTO website, but nothing has appeared to date. Since 2003 Monique Kervran and a team from the Louvre have had several seasons working jointly with the ICHTO group in this area,⁴¹² and had planned

⁴¹⁰ Conversation in Tehran, September 2003.

⁴¹¹ Bosworth (2010), gives this as 1270.

⁴¹² France Diplomati (2008).

for Thiriot to join them to investigate a kiln site, but unfortunately no visas have been issued for them to carry out this work since 2007.⁴¹³

3.13.8. Sarakhs

Little of this significant site lies within the present-day borders of Iran, but we visited the tomb of Ṣūfī shaykh Baba Lughmān al-Sarakhsī which is thought to have Saljūq foundations, with Īlkhānid decoration (see Fig. 3.29). When I was sifting through material in the Mashhad pottery storage I found an underglaze-painted turquoise and black decorated tile from a sounding at Tūs. One of my helpers was an elderly bricklayer employed by ICHTO, and had worked on restoring the tomb before 1979. They had excavated into the foundations prior to restoration, and he reported that they had found many more similar tiles, assorted pottery and coins. Someone had come from Tehran to inspect their finds and taken the entire collection back with him. He said that these finds confirmed an Īlkhānid dating for the structure. A Polish team was working on the Turkmenistan side of the site, where most of the administrative buildings are to be found. To date I have only found tantalising references to this work, with fourteenth century ceramics dating excavations at the northeast corner of the citadel.⁴¹⁴ Mustawfī described the city as having a strong wall 5,000 paces in circumference and flourishing agriculture.⁴¹⁵

3.13.9. Shahr-i Bilqīṣ, Isfarā'īn

Isfarā'īn lies in the fertile Juvayn plain, north of Sabsavār (see Map 4, page 33). This appears to be a key site, judging by the sherds seen in both Mashhad and Bojnurd.

Although the city is reported to have been sacked by the Mongols it revived and in the

⁴¹³ An email correspondence with their ceramologist, Annabelle Collinet confirms Mr Bakhtiārī's observations that the only Īlkhānid fragments to be found in this area are surface finds, including a few *lajvardīna* ones – 29.8.2011.

⁴¹⁴ Kaim (2000), 166. I have been in contact with Dr Kaim by email, and unfortunately they only had two seasons at the site. She told me that her ceramics expert would be in touch, but she never has been.

⁴¹⁵ Mustawfī (1915-19), 159, tr 155.

mid-fourteenth century was controlled by the Sabardārids.⁴¹⁶ By the beginning of the fifteenth century it was all but deserted.⁴¹⁷ The site was reported by both Yate⁴¹⁸ and Kleiss, and due to the depopulation of this area has been relatively unaffected by modern development. Mr Bakhtiārī (Nishapur ICHTO) confirmed that he also thinks that the underglaze geometric wares (type 1.6) are typical Juvayn and Nishapur products. There were several examples amongst the sherds viewed. I think that eventually the ICHTO work will be able to present a corpus of diagnostic wares for each area, and it may well be that several types that were presumed to be ubiquitous because we have numerous complete examples in Western museums are in fact restricted to specific regions, with only a few being in circulation in other areas.

Clevenger reported two dams in the Juvayn area, which he was unable to visit.⁴¹⁹

3.13.10. Ṭūs

Ṭūs lies about 20km to the north of Mashhad – see Map 4, page 33. According to Ibn Baṭṭūṭa it was one of the largest cities in Khurasan.⁴²⁰ In 2003 Mr Maḥmūd Ṭoghrāiy, the director of the Ṭūs excavations, reported that between 1996-1998 they had three seasons making around 240 soundings within the old walls; during the 2000 and 2001 seasons they revealed an early courtyard mosque, four bays of which are now under the modern road that leads up to Firdowsī's tomb. At the *kohandiz*, which lies to the southwest of Firdowsī's tomb, they were just ending their fourth season of excavations. They are concentrating on articulating and restoring the exterior walls before excavating the centre (see Figs 3.30 and 3.31). There is tantalising kiln evidence in the area surrounding the *kohandiz*, but when I visited in 2003 no kilns had been excavated. The

⁴¹⁶ Spooner (1965), 101.

⁴¹⁷ *Ibid.*, citing Clavijo who passed through on his way to Samarqand in the summer of 1404.

⁴¹⁸ Yate (1900), 378-79; Kleiss (1995-96), 388, 392, pottery figs 32-34.

⁴¹⁹ Clevenger (1969), 388.

⁴²⁰ Ibn Baṭṭūṭa (1929), 177.

Khurasan archaeological unit identify Ṭūs underglaze-painted wares as being typically floral, whereas Nishapur and Isfarāʿīn wares are geometric – see Catalogue, type 1.13 for Ṭūs wares and type 1.6 for Khurasan geometric ones. These Ṭūs wares apparently used the same manufacturing technique as those of Nishapur, Isfarāʿīn and Jurjān, but have a sandy-textured siliceous-paste body, no slip, and are inferior. Eighth/fourteenth century wares used black under a turquoise glaze, and blue, black, and/or turquoise under a clear glaze. The corpus includes glazed earthenware copies of the siliceous-paste prototypes. A typical unglazed ware that should be noted is a series of large buff-ware storage and water pots, with incised floral decoration inlaid with turquoise siliceous-paste fragments and turquoise glaze drips. A complete example was on display in a special exhibition in Mashhad (Catalogue number 1.4.24), and there are also sherd fragments in the Mashhad pottery storage (Catalogue number 1.4.25).

3.14. MARKAZĪ

3.14.1. Āveh

Āveh lies around 25km to the south of Sāveh,⁴²¹ just to the east of the Isfahan road. The large 220 hectare *tepeh* was surveyed and published by Kleiss in 1990.⁴²² He identified a Ṣafavid caravanserai and a tomb in the middle of the former walled city.⁴²³ From the pottery it was clear that there had been a sizeable Īlkhānid settlement, with evidence of workshops with kiln furniture such as tripod trivets. Kleiss published photographs of the stamped and moulded unglazed earthenwares and line drawings and profiles of the finewares. Type 1.4 black under a transparent turquoise glaze predominated with T-rims and lotus bowls,⁴²⁴ and he also noted imitation celadons, type 1.8.

⁴²¹ Shahīdi (2010), 23.

⁴²² Kleiss (1990),

⁴²³ *Ibid.*, fig 2.

⁴²⁴ *Ibid.*, figs 29 and 30.

More recently a team of Iranian archaeologists from Tarbiat Modares University has been excavating the site and announced discoveries of Īlkhānid structures and stucco work.⁴²⁵ This work was started by Dr Ḥamīd Shahīdī and is continuing under the directorship of Dr Lashkari.⁴²⁶

3.14.2. Sāveh

Sāveh lies about 125km south-west of Tehran, and was linked with Āveh in the medieval period, although its inhabitants were strongly Sunnī as opposed to fervent Shī‘īs in the latter.⁴²⁷ Being continually occupied it does not have the same archaeological value that the almost deserted Āveh has. There is an Īlkhānid barrage around 15km south-south-west of the town on the Qara-chay – see Kleiss’s sketchmap.⁴²⁸

3.15. SĪSTĀN

When Tate visited the Helmand basin in the early 1900s he reported that it was so underpopulated that he was able to see the outlines of old structures and canals, and mapped the area extensively.⁴²⁹ Stein was the next visitor to make comprehensive records, including many plates of his finds.⁴³⁰ Since then various teams have carried out surveys, but no comprehensive study has been made of the Islamic occupation, and museum reserves hold small pieces of this incomplete jigsaw.⁴³¹ In the 1930s a French team surveyed extensively, and their finds are housed in the Musée Guimet, Paris, and have been published by Gardin.⁴³² As their focus was pre-Islamic, no record was made of exact find spots for these, so their only use is as examples of styles to be found. An

⁴²⁵ Payvand (2006).

⁴²⁶ Information kindly provided by Dr Javad Golmohammadi.

⁴²⁷ Bosworth (1997), 86.

⁴²⁸ Kleiss (1995-96), 370.

⁴²⁹ Tate (1910).

⁴³⁰ Stein (1928), vol 4.

⁴³¹ Fairservis (1952); idem (1961); Gardin (1959); Fischer et al (1974-76).

⁴³² Gardin (1959).

Italian team with Umberto Scerrato and Giuseppe Tucci,⁴³³ worked in Sīstān at a multi-occupational site, Shahr-i Soḥta, for ten seasons from the mid-1960s, but I have not found any published details of their Islamic finds, which would appear to be from surveys; Mason analysed some of this material stored in Rome.⁴³⁴ In the Catalogue there are several fragments of type 1.1 coloured-ground wares, which are discussed.

There was a multidisciplinary American survey in the early 1950s under the auspices of the American Museum of Natural History, New York which used Tate and Stein's surveys as their basis and enlarged upon these.⁴³⁵ The most recent published work is that of a German survey team under Klaus Fischer that studied the hydraulics of the area and published some Islamic finds too.⁴³⁶ While they all demonstrate that there was an established urban population using fine tablewares, they add little to the story of these wares. See Figure 3.36 for an idea of this inhospitable landscape and the affect windblown sands have on sites.

3.16. ZANJĀN

3.16.1. Sulṭāniyya

Three visits were made to Sulṭāniyya, and on the third in 2003 I met with the director of excavations, Mr Sa'īd 'Alī Aṣghar Mirfatāḥ.⁴³⁷ Their fifteenth season was just underway, and they were focussing on the citadel's royal south gate, clearing the so-called sacred area to the east of the Öljeitü's tomb (Fig. 3.34), and continuing to clean and restore the western wall (Fig. 3.35). Mirfatāḥ answered many questions, and clarified observations made on the first visit. For example, on the first visit to the site in 2002 I was informed that a kiln workshop complex had been excavated to the east of

⁴³³ Bassaglia (1977).

⁴³⁴ Mason (1996).

⁴³⁵ Fairservis (1961).

⁴³⁶ Fischer et al (1974-76).

⁴³⁷ Prior to 1979 the site had been excavated by Dr Saeed Ganjavi, and an Italian team led by Marco Brambilla made a study of the complex and published their results in 1982, see Brambilla (1982).

Öljeitü's mausoleum during the 1990s. The following year I was assured by an architect in Khurasan, who had worked on the site for several seasons, that this was incorrect, and that the so-called kiln area was in fact a metal workshop. However, the truth is that this vaulted area east of the domed structure, and north of a four-*īwān* court at the eastern door, is not a workshop area, but a series of tombs - a perfect example of the pitfalls of misinformation. Mirfatāḥ has concluded that this was within the sacred area (Gates of Sanctity or *abwāb al-bīrr*), and had housed tombs. It had been hard to visualize an industrial workshop in such close proximity to a holy site, within the palace/tomb complex. Mirfatāḥ believes that this had been a royal cemetery before Öljeitü's tomb was constructed. Only animal bones were found in these earlier vaulted structures, and he thinks that the human remains must have been removed before construction began.

The workshop area is outside the royal city and has yet to be excavated (see aerial photograph, Fig. 3.30). The finds to date do not give any accurate information, as they have not been systematically excavated and represent the results of a mass clearance. To be fair, the Qajārs probably destroyed much valuable information when they robbed the site to build a pleasure palace on the east side in the late nineteenth century. We will have to wait for the excavation of the Mongol workshops before an accurate and useful assemblage can be established. However, it may well be that they could only produce clay wares here, and that the luxury siliceous-paste wares had to be imported from specific centres. Reitlinger and Talbot Rice visited the site in 1931, and the latter reported on this workshop area in a short article in *Burlington Magazine*.⁴³⁸ The only record that I found for Reitlinger's visit is a passing comment in *A Tower of Skulls*,⁴³⁹ wherein he stated:

⁴³⁸ Talbot Rice (1932), 252-53.

⁴³⁹ Reitlinger (1932), 179.

*“Every man and child had fragments of glazed pottery to sell, some of great beauty, for among the ruins are kilns of the fourteenth century, producing a blue ware like that of Damascus. The villagers seemed to have made the acquaintance of the Teheran dealers; for they had the cunning to hide their choice pieces till the last.”*⁴⁴⁰

Talbot Rice’s published bowl is now in the V&A collection (inv no C.8-1972) housed in Blythe House (see Catalogue numbers 1.4.19a/b); Reitlinger donated a similar bowl to the Ashmolean Museum (inv no 1978.1625 – see Catalogue numbers 1.4.18a/b). Both vessels have a compact calcareous clay body that is definitely not a siliceous-paste ware, and is discussed in the Catalogue. The description “blue ware” is confusing – it is not clear if it describes the turquoise and black wares illustrated, or the blue on white-slipped red calcareous clay variety that is a typical Sulṭāniyya ware too. Mustawfī in his *Ẓafarnāmah* reports on these workshops:

*“There were many similar workshops, where they worked in the manner of Aleppo, Kashan and China. There were implements for banquets, apparatus for battle; there they arranged all things for entertainments.”*⁴⁴¹

It is tempting to interpret this manufacturing “all things for entertainments” when included with Kashan and China as an indication of a ceramics industry. Aleppo had a well established metal-working industry, but several wasters in the BM collection indicate that there was also a ceramics industry by the thirteenth century too.⁴⁴² Georges Antaki, a well-known collector and resident of Aleppo, has several of what he and the local dealers style “Aleppo bowls”, which they date to the fourteenth/fifteenth centuries.⁴⁴³ Julia Gonnella identified a new ware in the Aleppo citadel excavations, whose physical make-up is very different from contemporary so-called ‘Raqqā

⁴⁴⁰ *Ibid.*

⁴⁴¹ Ward (1983), 565; and Melville (1998), 1-12.

⁴⁴² BM 1902 5-19 7, published in Jenkins-Madina (2006), 108, W. 132.

⁴⁴³ Discussion with Georges Antaki and John Carswell in the newly refurbished Islamic galleries of the National Museum, Aleppo in April 2009.

wares'.⁴⁴⁴ I am currently investigating this topic drawing on material from the Aleppo citadel excavations.

Sifting through Mirfatāḥ's information on the pottery, several interesting points were made. He emphasized that they had very few so-called Sultanabad wares (by this he mean coloured-ground, types 1.1 and 1.3 wares), but many other unspecified imports. He confirmed that the turquoise and black wares were largely Īlkhānid, or later. He claims that the Saljūq green-glazed *sgraffito* wares are a distinctive lighter green, and that in the Zanjān area you definitely have Īlkhānid green-glazed *sgraffito*.

Despite fifteen seasons at the site (up to 2003), their excavations of the Islamic levels have not extended beyond the royal citadel. There are apparently nineteen buildings named in the historical documents, and as mentioned above, the workshop areas are known and lie to be to the south-west of the citadel, and will be excavated at a later date. Observations on the glazed pottery excavated to date reveal a markedly diagnostic underglaze blue on white ware. The body paste is a red calcareous clay, with white limestone and quartz inclusions, masked with by a thick white slip (type 1.14 – see Catalogue for images). Unfortunately as Mīrfataḥ is excavating the levels above the Īlkhānid structures as one, and sees no interim material, or indeed Timurid levels, prior to the Ṣafavid one that he sees as the top level, so at this stage of the excavations it would be impossible to date these wares accurately archaeologically.

In 2004 he announced an important 5,000 coin hoard find on the news agencies⁴⁴⁵ of copper files in the names of the last two Īlkhānid rulers, Öljeitü and Abū Sa'īd:

“The discovery of this amount of coins which is unprecedented in the history of the Iranian archaeology shows the dome consisted of industrial workshops.

⁴⁴⁴ Gonnella (1999).

⁴⁴⁵ <http://www.chnpress.com/news/?section=2&id=3381>, dated 18.10.2004 and still accessible at time of submission, but no longer, there has been a switch in address to: <http://eng.chtn.ir/service.aspx?ID=1>.

According to the historical documents, these coins belonged to a mint inside the dome and were part of the government property.”

They were found when tracing the western tower of the domed structure. It is hard to fathom how such a conclusion can be drawn from this find, and to see the mint within this sacred structure. Certainly it could have been within the walled area which encompassed both the mausoleum and the palace, and hidden inside the tomb complex for safety at a time of unrest. None of these coins was illustrated.

3.16.2. Tepeh Nārgēh

This is Abhār Free University’s training excavation site. It is located on the Hamadān road, just outside Tākistān, and in 2003 the project was directed by Dr Ḥamīd Shahīdī when I visited in late September (see Figs 3.37 and 3.38 for views). They were in the middle of their sixth season. The *tepeh* has evidence for Saljūq through Qajār levels. However, progress had been slow and a late Qajār grape juice extraction and sugar refining industry at the top level had destroyed the first few metres of deposit, so to date no firm sequence has been established. Dr Shahīdī believes that eventually they will achieve a full pottery assemblage, and he is excavating the site carefully, and practising some ethnoarchaeology exploring the traditional sugar extraction process still practised by a few farmers today.

3.17. SITES IN PRESENT DAY IRAQ

Baghdad was one of the winter capitals for the peripatetic Īlkhānid rulers, and although little trace remains architecturally,⁴⁴⁶ other outlying sites have yielded evidence for fourteenth century occupation. A gazetteer of all known Islamic sites in Iraq has been compiled by Marie-Odile Rousset,⁴⁴⁷ which makes a useful checklist for this study. The following is an account of published Īlkhānid sites investigated by excavation or survey.

⁴⁴⁶ Strika and Jābir (1987).

⁴⁴⁷ Rousset (1992).

3.17.1. Āna

When Ghāzān was campaigning against the Mamlūks in 702/1302-1303 he spent a week carousing and hunting from Āna, declaring that there was “no more delightful place in the whole world.”⁴⁴⁸ Northedge’s rescue excavations at this Euphrates site in 1981-82 found little evidence of a fourteenth century settlement. This gives further support to my argument that these temporary encampments leave almost no traces.

3.17.2. Harbā

This site on the Baghdad-Mosul road, 30km south of Samarra, was excavated by a French team in 1987 when fourteenth through seventeenth-century levels were investigated.⁴⁴⁹ They uncovered a large hypostyle mosque which they had difficulty in dating, perhaps with late twelfth century foundations, but in continuous use until the site was abandoned in the seventeenth/eighteenth centuries. Its tile decoration was datable to the fifteenth century.⁴⁵⁰ As to the ceramic finds, Rougeulle comments that monochrome turquoise, black under a transparent turquoise glaze and underglaze painted panel style wares were the most numerous wares, which must have been provincial copies with earthenware bodies. The only siliceous-paste examples that she cited were blue and white fifteenth century wares.⁴⁵¹ See Chapter 5, section 5.2.4 for a discussion on blue and white wares, it is possible that this type could be earlier.

3.17.3. Kish

The region of ancient Kish, which lies along the Shaṭṭ al-Nīl, an ancient canal which ran from the Euphrates near Babylon to the Tigris near Na’umaniyya, was studied by Reitlinger, who had worked there in the winter of 1930-31 with a joint Oxford

⁴⁴⁸ Northedge (1988), 12. Quoting Rashīd al-Dīn.

⁴⁴⁹ Rougeulle (2001).

⁴⁵⁰ *Ibid.*, 397.

⁴⁵¹ *Ibid.*, 401.

University and Chicago Field Museum expedition.⁴⁵² In the winter of 1966 Paolo Costa carried out a survey along the Shaṭṭ al-Nīl, referencing Sarre and Herzfeld's⁴⁵³ study of this area, but ignoring Reitlinger's. Costa described the site of Abū Sudayra as "a big tell, which needs at least some soundings to be thoroughly surveyed. It seems to be a very promising site for extensive excavations."⁴⁵⁴ Reitlinger carried out a general clearance of several rooms on the tell and made a deep sounding or sondage into the mound to a depth of 30 feet, revealing "seven successive layers of building."⁴⁵⁵ The lowest level was datable to the sixth century BC by the discovery of Nebuchadnezzar's bricks – he did not consider that these were possibly reused. He saw a settlement gap between these and the eleventh century AD.⁴⁵⁶ The finds are divided between the Ashmolean and the V&A, with the V&A having most of the earlier types illustrated in his Kish article,⁴⁵⁷ and the Ashmolean having the so-called "Syrian" underglaze-painted siliceous-paste wares (type 1.5) and the black under a transparent turquoise glaze (type 1.4). Reitlinger was surprised at the wealth of the thirteenth/fourteenth century finds, with cobalt and lustre, and imitation Chinese blue and white, being used by "the inhabitants of a small and already decaying provincial town."⁴⁵⁸ What he does not consider is the fact that the canal, judging by the considerable number of Islamic shrines erected along its banks, was once a vital node in Iraq's agricultural system, and after the devastation caused by the Mongol hordes in the thirteenth century, a century later the Īlkhānid administrators fully appreciated that it was worth protecting the agricultural infrastructure from further incursions, whether by foreign invaders or local tribes, and established regional administrative centres to both physically protect the area and ensure

⁴⁵² Reitlinger (1935); idem (1939).

⁴⁵³ Sarre and Herzfeld (1911-1920).

⁴⁵⁴ Costa (1971), 200.

⁴⁵⁵ Reitlinger (1935), 199.

⁴⁵⁶ *Ibid.*, 200.

⁴⁵⁷ Reitlinger (1935).

⁴⁵⁸ *Ibid.*, 210.

harvests were accounted for tax purposes. So, as at Ḥasanlū either permanent or seasonal administrators were in residence and in need of finer tablewares than the agricultural labourers. This is totally hypothetical, but would certainly account for the finer dining.

Adams also carried out a survey of the area identifying diagnostic sherd material in the manner of his *Land Behind Baghdad* study.⁴⁵⁹

3.17.4. Nippur

The Nippur concession has been under the direction of American teams since 1888.⁴⁶⁰ While the focus has been on the more ancient remains, the Islamic periods have not been ignored and Level II in Area M outside the ancient city walls represents the fourteenth century.⁴⁶¹ None of the underglaze-painted pottery finds according to the excavators had a siliceous-paste body, all are described as having a “light buff body with sandy grit temper” – the shapes are typically Īlkhānid.⁴⁶² Gibson comments that the canal that feeds the site, although around 7m wide, was poorly engineered and its “lack of regularity....may be an indication of local initiative, in a time of reduced central control and reduction in salinization, with consequent rejuvenation of irrigation agriculture on a tribal basis.”⁴⁶³ An alternative theory to mine given above in Section 3.17.3. Gibson also recorded the crude hand-formed pottery contemporary with these finewares, which is important for establishing future typologies.

3.17.5. Tell Abū Ṣukhayr, al-Daura, Baghdad⁴⁶⁴

⁴⁵⁹ Gibson (1972).

⁴⁶⁰ <http://oi.uchicago.edu/research/projects/nip/> - accessed 29.8.2011.

⁴⁶¹ Gibson et al (1998), 14.

⁴⁶² *Ibid.*, figs 20 and 21.

⁴⁶³ *Ibid.*, 13.

⁴⁶⁴ Shammri (1986),

This lies around 13km due south of Baghdad near the al-Daura oil refinery. There were three seasons in 1976, 1977 and 1978. The site was abandoned in the mid-fourteenth century, probably due to flooding.⁴⁶⁵ Shammri identified two periods of occupation: 1. ‘Abbāsīd – ninth to mid-thirteenth centuries; 2. Īlkhānīd – late thirteenth to mid-fourteenth centuries. He described the site as being surrounded by a network of canals flowing from the Euphrates into the Tigris and that it was also on the Dārb Zubayda. Five mounds were excavated with seven layers of occupation. Two coin hoards were found in the first season, both Īlkhānīd, in the names of Ghāzān, Öljeitü and Abū Sa‘īd and one gold ‘Abbāsīd dinar.⁴⁶⁶ Nearly all the pottery is styled as having a “white paste”. Five examples of underglaze-painted wares are given, but the descriptions are confusing.⁴⁶⁷ One diagnostic example that stands out is a Mamlūk-shaped *albarello* (see Fig. 5.1 for the diagnostic shapes) with a “white earthenware” body and decorated in turquoise, black and blue, with a pseudo-*naskhi* inscription, blue crosshatching and black scrolling.⁴⁶⁸ It can be equated with one in the Ashmolean collection, see Catalogue number 3.3.16, although this example lacks the turquoise.

3.17.6. Wāsiṭ

Wāsiṭ was established on the Tigris mid-way between Baghdad and Basra; the river changed its course eastwards sometime between the middle and end of the fifteenth century.⁴⁶⁹ The Iraq Department of Antiquities excavated the site over six seasons between 1936 and 1942, the last one being directed by Fu‘ād Safar.⁴⁷⁰ The city experienced an Īlkhānīd revival after Hülegü’s devastations and continued to mint coins

⁴⁶⁵ *Ibid.*, apparently there was severe flooding in 757/1356.

⁴⁶⁶ *Ibid.*, 81. Lutfi and Jannabi (1978), 205-222.

⁴⁶⁷ *Ibid.*, 232.

⁴⁶⁸ *Ibid.*, 233; 497, pl I. Height 25cm; diameter at mouth 9.5cm; base 10cm – excavated on NW side of layer II in 1977.

⁴⁶⁹ Sakly (2002), 165.

⁴⁷⁰ *Ibid.*; Safar (1945).

under the Jalāyirids (740-813/1339-1410).⁴⁷¹ The Timurids recognised its strategic importance too. The Īlkhānid levels are represented by levels III and II – these being distinguished by pottery finds and brick sizes.⁴⁷² As at Tūs, the large water jars are “occasionally enriched with small triangles or lozenges of shiny, turquoise-coloured inlay.”⁴⁷³

Safar does not describe any of these fragments as having siliceous-paste bodies either, although I would be surprised if many did not. Figure 18, drawing number 58, is a typical type 1.4; drawing numbers 49, 51 and 87 are described as “Turkish” have a grey ground with a thick white paste and are undoubtedly type 1.2. There is a lustred T-rim (number 68) and true celadons (numbers 98 and 181). Without handling or seeing colour photographs of all these pots I would estimate that there is a mixture of Īlkhānid and Mamlūk wares here.

3.18. SITES IN PRESENT DAY TURKEY

Eastern Anatolia was under Īlkhānid domination at the beginning of the fourteenth century⁴⁷⁴ although archaeologically there is little to determine this. In the Catalogue finds from Ānī are included. The Russian excavators of this Armenian fortified city published examples of types 1.1, 1.9 and 1.11.⁴⁷⁵ According to Barthold an inscription on the main gate declared the city to be a private domain of the Īlkhānid rulers.⁴⁷⁶ It was badly shaken by an earthquake in 1319, but coins continued to be struck into the mid-fourteenth century.⁴⁷⁷

⁴⁷¹ Sakly (2002), 166.

⁴⁷² Safar (1945), 38.

⁴⁷³ *Ibid.*, 38.

⁴⁷⁴ Melville (2009), 51ff.

⁴⁷⁵ Shelkovnikov (1957), plates 33 and 38.

⁴⁷⁶ Barthold and Minorsky (1960), 305.

⁴⁷⁷ *Ibid.*

Two pottery production sites have been excavated, producing provincial underglaze-painted wares to satisfy the local markets: Ahlat⁴⁷⁸ and Hasankeyf.⁴⁷⁹ Both investigated typical updraught peg kilns and used tripod trivets as spacers. The two kilns at Ahlat used the natural contours of the hillside and were built into a small cliff face. The composition of the body pastes is not clear. Garstang reported late medieval, thirteenth/fourteenth century levels at Mersin, but did not publish any images. I established that his sherd collection is still in the British Institute in Ankara but have not had any opportunity to study them as yet.⁴⁸⁰ I am sure that more evidence of an Īlkhānid presence in eastern Anatolia will be found as more sites are investigated.

3.19. CONCLUSION

This list involves many buildings, but the principal focus is an analysis of the archaeology of the sites wherein they are situated, and an assessment of their archaeological potential. To list all fourteenth century buildings would be to repeat the work of architectural historians such as Donald Wilber and André Godard. Iran is an enormous country, and I feel that I am barely scratching the surface. At this stage it would probably be more profitable to concentrate on one specific area, and attempt to gain a clearer picture of the archaeological material available. To judge from the pockets of information available from Iran, this is gradually being carried out.

⁴⁷⁸ Karamağaralı (1981), 75.

⁴⁷⁹ Oluş Arık (2002).

⁴⁸⁰ Garstang (1953), 261.

3.20. FIGURES



Fig. 3.1 – Hasan Yousefi rummaging through the broken bags of pottery now open to the elements in the domeless *chillakhāna*. Most of the labels were ruined and the sherds not marked individually with locus numbers.



Fig. 3.2 – A selection of sherds from one of the broken bags. Largely Timurid. The blue and white sherd above right of the turquoise *sgraffito* one is an example of ‘Sultāniyya blue and white’, type 1.14.

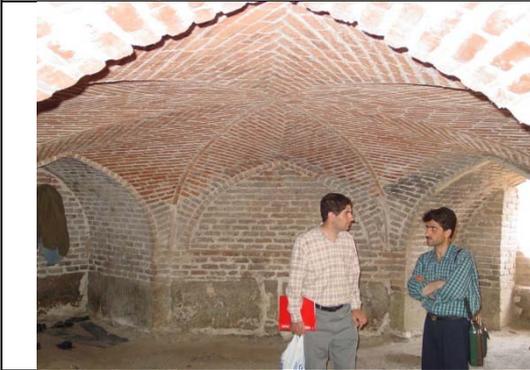


Fig. 3.3 – Interior of the *hashtī*.



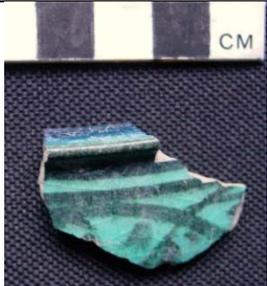
Fig. 3.4 – Green-glazed *sgraffito* bowl from Sultāniyya. Excavated by Dr Saeed Ganjavi pre-1979 and housed in National Museum, Tehran’s pottery store. No further details.



Fig. 3.5 – Reconstructed interior of the Marāgheh observatory, based on excavated floor plan.



Fig. 3.6 – Marāgheh observatory – image taken from internet.

	
<p>Fig. 3.7 – Lustre tile fragment found during the observatory excavations with an inscription in moulded relief highlighted in cobalt. On display in the Marāgheh Museum.</p>	<p>Fig. 3.8 – Small T-rim fragment from Nobarī’s spoil in his excavations at the third tomb at the Gunbad-i Kabūd complex. Inspected under a 10X magnification microscope and demonstrated to be a true siliceous-paste body.⁴⁸¹</p>
	
<p>Fig. 3.9 – Highest point of Rab' -i Rashīdī, image taken 12.9.2002.</p>	<p>Fig. 3.10 – Excavations in progress behind the Blue Mosque, Tabriz.</p>
	
<p>Fig. 3.11 – Tabriz Museum, didactic display of an archaeological section.</p>	<p>Fig. 3.12 – Tile fragments in the Blue Mosque, Tabriz.</p>
	
<p>Fig. 3.13 – Qiblah wall of Mesjid-i 'Alī Shāh, Tabriz.</p>	<p>Fig. 3.14 – The Şafavid defensive wall surrounding Rab' -i Rashīdī.</p>

⁴⁸¹ Thanks to Chris Doherty at RLAHA, 30.5.2012.



Fig. 3.15 – Fragments collected by Michael Rogers at the Rab‘-i Rashīdī in 1966. Now in BIPS store, Tehran.



Fig. 3.16 – Fragments of glazed earthen-ware pottery from the DAI’s excavations at Takht-i Sulaymān in Tehran Museum pottery storage.

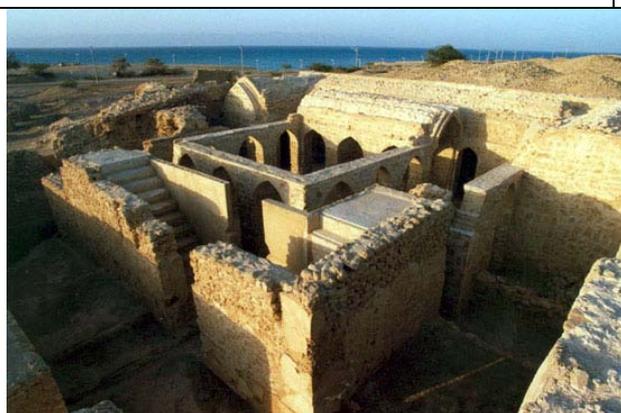


Fig 3.17 – Harireh, Qays Island, image downloaded from CAIS website.



Fig. 3.18 – Sherd collection from ICTHO’s survey of Pa‘īn Killeh.



Fig. 3.19 – Aq Qalā mosque from the SW.



Fig. 3.20 – Aq Qalā entrance iwan.



Fig. 3.21 – Aq Qalā – remains of an inscription in the *qibla iwān*, which possibly has the date 712 AH – the 12 is clear, the 7 fragmentary.



Fig. 3.22 – Aq Qalā – another part of the *qibla iwān* frieze which is better preserved.



Fig. 3.23 – Faryūmad – the two-*iwān* Friday mosque complex.



Fig. 3.24 – Khosroshīr *iwān* from the north.



Fig. 3.25 - Khosroshīr *iwān* from the north-east.



Fig. 3.26 – Pottery from Khosroshīr - collection made by Mashhad ICHTO. Note in the centre, below incised earthenware piece, a polychrome ‘dot and dash’ (design **1k**) sherd.



Fig. 3.27 – Khosroshīr - carved stucco inscription frieze on the interior of the *tūwān*.



Fig. 3.28 – Nishapur, the *kohandiz* or fortified inner city at Shādyākh.



Fig. 3.29 – Sarakhs – tomb of Baba Lughmān al-Sarakhsī from the west.



Fig. 3.30 - Tūs – a mudbrick bastion at the Merv gate of the outer city walls.



Fig. 3.31 - Tūs – conserving the *arg* or citadel prior to excavations in 2003.



Fig. 3.32 – Aerial view of Sultāniyya with the turquoise dome of Öljeitü's tomb top centre and the *khānaqāh* and tomb of Chelebi Oghlū (more correctly Shaykh Buraq), which dates from around 1310,⁴⁸² towards the bottom of the image. The workshops are said to be to the north of the latter, right of the line of *qanāt* holes on the left side of the picture, with the modern road cutting right through them. After Stronach and Mousavī 2009.⁴⁸³



Fig. 3.33 – Sultāniyya – Öljeitü's tomb complex – south facade and south wall.



Fig. 3.34 - Sultāniyya – excavating the east side. The two ovens belong to a later level. The excavator is apparently on an Ilkhānid floor.

⁴⁸² Blair (1986a), 147.

⁴⁸³ Stronach and Mousavī (2009), fig. 79.



Fig. 3.35 - Sulṭāniyya – restoring the western wall to the royal complex.



Fig. 3.36 – The desertification of Sīstān. After Stronach and Mousavī 2009.⁴⁸⁴



Fig. 3.37 – Tepeh Nārgēh from the north.



Fig. 3.38 – Tepeh Nārgēh – the sugar factory area.

⁴⁸⁴ Stronach and Mousavī (2009), 71, fig 42 – Dahan-e Ghulaman 30km south-west from Zabol.

4. COMPARATIVE MATERIAL FROM IRAN'S NEIGHBOURS

4. 1. INTRODUCTION

The full range of fine wares produced and circulating in the Golden Horde (type **2**) and Mamlūk (type **3**) territories are listed in the Catalogue in volume 2. This chapter serves to enumerate and discuss the archaeological sources for these products. Sites are only mentioned if their fourteenth century levels have been studied. The reader may think there are some oversights, and there may well be, but some sites, for example Merv, where the British team working there has yet to investigate the fourteenth century levels, has been omitted intentionally.⁴⁸⁵

4. 2. GOLDEN HORDE

There is a distinctive uniformity to Golden Horde cities which Mark Kramarovsky sees as being Islamic, yet they “had nothing in common in terms of planning structure with either Central Asian or Middle Eastern cities.”⁴⁸⁶ With their lack of fortifications he interprets them as evolving from country estates. Some thirty significant settlements have been identified along the Volga.⁴⁸⁷ The Russian excavations on these sites are invaluable for comparative material, as the two principal cities, the two Sarays, were founded on virgin sites, and present ceramic assemblages, and industrial areas with pottery workshops producing siliceous-paste wares, earthenwares and tiles of both from which it is possible to draw analogies. The nomenclature for these sites is confusing and in the literature there are references to the two Sarays: Old Saray and New Saray; or Saray Batu and Saray Berke; and excavation reports and exhibition catalogues refer to Tsarevo (sometimes Tsarevsko) and Selitryonnoye, which are the modern names of adjacent villages. A succinct definition for these two settlements is found in Allsen's

⁴⁸⁵ Email correspondence with Tim Williams, Director, in May 2011.

⁴⁸⁶ Kramarovsky (2005), 132.

⁴⁸⁷ *Ibid.*, 133.

Encyclopaedia of Islam entry for ‘Saray’,⁴⁸⁸ his information is drawn from coin evidence, medieval travelogues and maps. The first capital was that founded by Batu (r 1237-1256) and was completed about 1242. It is adjacent to the village of Selitryonnoye, a name used in this study for all finds from this site. It lies on the left bank of the Akhtuba, a tributary of the Volga, about 125km up river from Astrakhan.⁴⁸⁹ New Saray was established by Uzbek (r 1311-1341) and the move is thought to have taken place towards the end of his reign.⁴⁹⁰ It is also located on the Akhtuba, near the modern village of Tsarevo, about 125km north of Selitryonnoye.⁴⁹¹ The Selitryonnoye site is appreciably larger. Both sites have been extensively excavated since the nineteenth century, and the finds are distributed between the State Hermitage in St Petersburg, the Museum of Oriental Art, Moscow, the State Historical Museum, Moscow and the Astrakhan State Historical Museum. Between 1960 and 1990 these excavations were headed by German Fedorov-Davydov (1931-2000) under the auspices of the Volga Regional Archaeological Expedition of Moscow University and Archaeology Institute. He published extensively on this work, including two volumes in English, which is fortunate, as many of the Russian publications are unavailable.⁴⁹² Excavations continue at many sites along the Volga and AG Sitdikov is said to be publishing recent work on several pottery kilns excavated at Selitryonnoye in 2013.⁴⁹³

We know from Ibn Baṭṭūṭa that the Jochid rulers continued their nomadic practices, and he, like the monk William Rubruck almost a century earlier, took some time to locate the *orda*.⁴⁹⁴ Neither city was walled initially and the archaeologists noted the addition of a ditch at Tsarevo which they estimated must have been added in the

⁴⁸⁸ Allsen (1997b), 41-41.

⁴⁸⁹ *Ibid.*

⁴⁹⁰ *Ibid.*, 42.

⁴⁹¹ *Ibid.*

⁴⁹² Fedorov-Davydov (1984); idem (2001).

⁴⁹³ Personal communication with Drs Sergei Bocharov and Sitdikov at Silves, October 2012.

⁴⁹⁴ Ibn Baṭṭūṭa (1962), vol 2, 481.

1360s during a time of internecine warfare, as it cut through one of the wealthy villas.⁴⁹⁵ Allsen suggests that from Ibn Baṭṭūṭa's description of his visit to Saray around 1333-35 he was at Selitryonnoye. It took him half a day to cross the city.⁴⁹⁶ The Tsarevo site is appreciably smaller. At the time of Ibn Baṭṭūṭa's visit there were thirteen Friday mosques and many other minor ones.⁴⁹⁷ Ibn Baṭṭūṭa's descriptions are supported by those of the Egyptian historiographer al-ʿUmarī (700-749/1301-1349),⁴⁹⁸ who never visited the area, but recorded and compiled accounts of other travellers in encyclopaedic form.

The Volga basin had a considerable number of settlements along its river banks, some of which are listed below, together with some of the principle Black Sea and Khwārazm sites, in order to give an indication of the wealth of information that is available from this area. While the khāns continued to move between these centres, they profited from the regular trade in furs, metals, slaves and other commodities that passed along these routes. This trade had greatly diminished in the previous century and the Khwārazmshāhs had begun to revive it prior to the Mongol invasions.⁴⁹⁹ The newly invigorated fur trade proved highly profitable and the bulk of the northern trade was directed through the Volga corridor in order to facilitate tax collection.⁵⁰⁰ This helps to explain the upsurge in building new centres along the Volga. Coupled with this, Italian trade in the Black Sea ports increased, with both Venice and Genoa establishing centres in the Crimea, and this encouraged the establishment of secure routes over the steppe between the Don and the Volga.

⁴⁹⁵ Fedorov-Davydov (1984), 23.

⁴⁹⁶ *Ibid.*, 515.

⁴⁹⁷ *Ibid.*.

⁴⁹⁸ al-ʿUmarī (1965), 146.

⁴⁹⁹ Martin (1978), 403.

⁵⁰⁰ *Ibid.*, 407.

4.2.1. *Selitryonnoye*

Fedorov-Davydov started his systematic excavations here in 1972,⁵⁰¹ and only investigated the fourteenth century levels, thus dating all his finds to the fourteenth century or later.⁵⁰² Kramarovsky raises the possibility that “the 13th century history of the Golden Horde remains obscure due to the absence of datable materials.”⁵⁰³ However, given this element of doubt as to their ability to recognize early dated material, I think it is safe to assume that with the coin evidence and knowledge of the pottery assemblage, coupled with comparisons to be made with the Tsarevo material, Fedorov-Davydov was confident with his dating. He managed to garner a clear idea of the architecture, with rich villas and large workshops, which were reused and divided up towards the end of the fourteenth century, when there was an economic down turn and political unrest – the city stretched for three or four kilometres along the banks of the Akhtuba. An important aspect of this work was the discovery of an industrial complex in the centre of the city, manufacturing not only ceramics, but also glass, and bricks; and workshops for ivory and bone carvers, as well as jewellers.⁵⁰⁴ One large potter’s workshop had more than forty kilns⁵⁰⁵ which are described in detail.⁵⁰⁶ Other than importing fine Chinese celadons, judging by the pottery finds it would seem that local production satisfied the market, and whereas at multi-period sites in the earlier levels there were many fineware imports from Iran and Syria, none were evident here, unless the *lajvardīna* vessels were imported – this is discussed below in section 4.3.2, Stary Krym or Solkhat, and in the Catalogue.

⁵⁰¹ Fedorov-Davydov (2001), 67.

⁵⁰² Fedorov-Davydov (1984), 20.

⁵⁰³ Kramarovsky (1991), 256.

⁵⁰⁴ *Ibid.*, 19.

⁵⁰⁵ Fedorov-Davydov (2001), 78.

⁵⁰⁶ Fedorov-Davydov (1984), 143-157.

4.2.2. Tsarevo

Fedorov-Davydov carried out systematic excavations at this site from 1959-1973, uncovering three villas, craft quarters, and revealing the plan of this smaller city. Like Selitryonnoye, no finds of the twelfth or early thirteenth century were discovered, indicating it had been constructed on virgin soil. There was evidence for tile and brick manufacture, but no siliceous-paste wares.⁵⁰⁷

4.2.3. Vodyanskoye

This site lies about 40km upstream from Volgograd and is believed to have been Beljamen.⁵⁰⁸ No industrial finds were described, but its architectural features included a bath-house with a hypocaust, a domed mausoleum and a large fourteenth century congregational mosque, and evidence of secondary usage when it came under attack by Timur's armies at the end of the fourteenth century.⁵⁰⁹

4. 2.4. Ukek

The history of archaeological activity in the vicinity of Ukek has been summarised and studied by Leonard Nedashkovsky.⁵¹⁰ The site is situated near Saratov, and has been almost continuously subjected to some form of archaeological activity since the nineteenth century. It has provided important information on the metalworking industry.

4. 2.5. Bolgary

The site of Bolgary lies about 125km south of Kazan, on a tributary of the Volga (see Figs 4.1 and 4.2). It had been the capital of Volga Bulgaria since the eighth century and was continuously occupied throughout the medieval period, and unlike the newer Golden Horde foundations was surrounded by a defensive ditch. The site has been extensively excavated and the finds are divided between the small site museum and the

⁵⁰⁷Fedorov-Davydov (2001), 78.

⁵⁰⁸ Fedorov-Davydov (1984), 25.

⁵⁰⁹ *Ibid.*, 26.

⁵¹⁰ Nedashkovsky (2004).

State Museum in Kazan, where some 230 thousand items have been deposited and many examples are on display.⁵¹¹ These finds include large quantities of Chinese celadon, thirteenth century Kashan lustre wares, and contemporary Syrian material.⁵¹² These present a valuable comparative checklist for the Golden Horde material. In the fourteenth century it experienced a revival as Bolgary became an important node in the fur trade.⁵¹³

4. 2.6. Bilyar

Bilyar, the second capital of Volga Bolgaria, was harshly treated during the Mongol invasions and never fully returned to its former glory. The site has been intensively studied over the years and most recently under the directorship of Svetlana Valiullina, Director of Kazan State University Museum.⁵¹⁴

4.3. GOLDEN HORDE BLACK SEA SITES

4.3.1. Azov – Azak – Tana

Present day Azov was the Golden Horde site of Azak, which controlled the Don valley and the route to the lower Volga, so important strategically. In the fourteenth century it had a Venetian colony which was central to Volga trade. It has been excavated sporadically and there were a number of fine examples of Golden Horde wares from these campaigns in the Kazan Hermitage exhibition – see Catalogue numbers 2.1.1; 2.1.3; 2.1.11; 2.5.1; 2.7.1; and 2.8.1. They are all labelled as being from the “Volga area” and I think this means that they are Volga products, as up to now the only kilns excavated producing these fine siliceous-paste wares are those at Selitryonnoye. There were certainly kilns at Azov, but these were producing glazed *sgraffito* earthenwares.⁵¹⁵

⁵¹¹ Kazan Museum (2000), 31.

⁵¹² Paper given by Marina Poluboyarinova (Fedorov-Davydov’s widow) at the Kazan Golden Horde conference in May 2006.

⁵¹³ Martin (1978), 412.

⁵¹⁴ Valiullina (2002).

⁵¹⁵ Fedorov-Davydov (1984), 29.

4.3.2. *Stary Krym – Solkhat*

This site on the south-east side of the Crimean peninsula was the centre of the Crimean *tumen*, and struck coins in the name of both Krym and Solkhat.⁵¹⁶ It was a strategically important site for monitoring the sea lanes and conducting Golden Horde trade. The site has undergone extensive archaeological investigations under the directorship of Mark Kramarovsky and his team from the State Hermitage. The pottery corpus at these Crimean sites is a mixture of what is understood as Volga Golden Horde finewares and Byzantine *sgraffito*. Many kilns manufacturing *sgraffito* earthenwares have been excavated.⁵¹⁷ Kramarovsky believes they produced their own version of *lajvardīna*, easily distinguishable by its green-glazed base (see his excavated example in Catalogue number 2.6.3). However, they have yet to find evidence for a kiln producing this ware in the Golden Horde territories, and not all examples found have the green base. So for the time being it is impossible to establish whether these were imports from Īlkhānid Iran, or local products. Whatever the case is, it is interesting that they shared the same taste for this one ware, whereas their underglaze-painted products are easy to distinguish by both shape and painting style. This aspect is discussed in the next chapter and the Catalogue.

4.4. GOLDEN HORDE KAZAKH SITES

4.4.1. *Jayik Settlement*

Going eastwards across the steppe towards Khwārazm, there are more Golden Horde sites with typical ceramic finds. Jayik is a small domed, tiled mausoleum near present day Uralsk, Kazakhstan, on the Ural River. The tomb was excavated prior to restoration,

⁵¹⁶ *Ibid.*

⁵¹⁷ Conversation with Mark Kramarovsky.

yielding several *lajvardīna* fragments of both vessels and tiles illustrated in the Catalogue (numbers 2.6.7 and 2.6.8).⁵¹⁸

4.4.2. Saraichik

Excavations at Saraichik were carried out between 1989 and 2007 under the directorship of Dr Z Samashev. Situated on the Ural River, it was a flourishing town on the trade route connecting Khwārazm with the Volga centres. Ibn Baṭṭūṭa visited the city en route for Kunya Ürgench in 1335, and reported that it took ten days to travel there from Saray (Selitryonnoye) and the onward journey took another thirty days.⁵¹⁹ The river is quite fast flowing and wide here (see Fig. 4.3), and he commented that it was crossed by a bridge of boats like those across the Tigris in Baghdad (see Fig. 4.5). I was unable to find any comprehensive excavation reports, but their ceramologist, Olga Kuznetsova has kindly answered questions by email, and sent a pdf of their latest publication, which gives a visual idea of the range of their finds.⁵²⁰ They have identified kilns producing earthenwares, and have analysed kiln slag that indicates a siliceous-paste was in use, but no associated kilns have been found. They fear that the meandering Ural River has washed away the evidence.

4.5. GOLDEN HORDE KHWĀRAZM SITES

4.5.1. Kunya Ürgench

This site, situated in the delta region of the Amū Daryā (Oxus River), was founded after the Mongol destruction of the previous Khwārizm capital, Gurganj in 1221.⁵²¹ The city was allegedly virtually destroyed by Timur in 793/1391, yet continued to be occupied until the seventeenth century when a change in the Amū Daryā's course necessitated

⁵¹⁸ I am grateful to Olga Kuznetsova for this information and for sending me images.

⁵¹⁹ Ibn Baṭṭūṭa (1929), 167.

⁵²⁰ Samashev et al (2008).

⁵²¹ Bosworth (2000b), 892-3.

moving the capital to Khīva.⁵²² When Ibn Baṭṭūṭa visited the city in 1335 he marvelled at its size and wealth. Over the years there has been much speculation that the Amū Daryā changed its course after the Mongol invasions and flowed westwards into the Caspian Sea. The most recent study by Boroffka and colleagues identified a possible channel, but also calculates that due to intensive irrigation once the canals had been restored in the fourteenth century much less water was flowing into the Aral Sea and it was even lower and more saline than it is today.⁵²³ Some archaeological proof for this statement is the fourteenth century Kerderi mausoleum complex at the north end of the Aral Sea, north of the former island of Barsa Kelmes, on an artificial mound in the sea. When Boroffka surveyed the site in 2002 it was still surrounded by water which was 50cm deep.⁵²⁴ Boroffka reported a good scatter of Golden Horde material amongst the finds.

Today Kunya Ürgench lies in Turkmenistan, but is easily accessible from Nukus, the administrative capital of Karakalpakstan, Uzbekistan. Russian teams of archaeologists, over the years, principally Iakubovskii⁵²⁵ followed by Pugachenkova,⁵²⁶ carried out extensive research, and found typical Golden Horde occupation in the fourteenth century. No evidence for pottery workshops producing the siliceous-paste wares was found, despite the Russian theory that it was the Khwārazm potters who were responsible for introducing the technology to the Saray workshops.⁵²⁷ In the small site museum there is a typical assemblage of finewares on display, including several fragmentary bosses from so-called rosewater bowls (see Figs 5.1 and 5.5 for profiles of this shape). Another interesting find was a polychrome tile (Catalogue number 2.7.4).

⁵²² *Ibid.*, 893.

⁵²³ Boroffka et al (2006), 730-31.

⁵²⁴ *Ibid.*, 726, fig 2.8. Additional information by email from Boroffka 18.1.2007.

⁵²⁵ Grekov and Iakubovsky (1939).

⁵²⁶ Pugachenkova (1960a and b).

⁵²⁷ Tolstov (2005), 297.

With evidence for more from Mizdakhkan in the Nukus Museum it is tempting to suggest that this style (type 2.7) may have originated in Khwārazm, and was possibly manufactured in one of the two centres. Vessels with this style of decoration have been found as far north as Moscow.⁵²⁸ According to Bocharov the excavators refute the idea that these polychrome wares were manufactured here, on the grounds there is no physical evidence to date.⁵²⁹

4.5.2. Mizdakhkan

Mizdakhkan lies east of Kunya Ürgench, and about 19km west of Nukus, near Khodjeili, the former capital of Karakalpakstan. It was an important medieval town, apparently equal in size to Kunya Ürgench,⁵³⁰ but not mentioned by Ibn Baṭṭūṭa, who when he departed for Bukhara only describes going via the former Khwārazm capital, Kāt.⁵³¹ However, he would have been going south-east, whereas Mizdakhkan was probably on the more northerly route going up towards the Aral Sea, via Pulzhaj and on to Saraichik and the Volga basin – an alternative route to the one he took. Mizdakhkan was continuously occupied from the fourth century BC through to the devastations of Timur in the late fourteenth century. Adjacent to the ancient city there is a vast burial mound, which must have served the city throughout its life. The fourteenth century tomb of Madhlūm Khān Zūlū has been investigated and yielded considerable quantities of underglaze-painted and *lajvardīna* tiles (see Fig. 4.9). Both mounds at Mizdakhkan have been extensively excavated by the Faculty of Archaeology at Nukus University, most recently under Kdirniyazov, who has published several articles in Uzbek academic journals on his work.⁵³² He has found kilns producing glazed earthenwares but no

⁵²⁸ Koval (2010).

⁵²⁹ Discussion in Silves, October 2012.

⁵³⁰ Knobloch (2001), 85.

⁵³¹ Ibn Baṭṭūṭa (1929), 171.

⁵³² Michael Rogers has kindly read these for me and confirmed that they are not comprehensive, and rather muddled, but their rather blurred images are useful additions to the corpus.

siliceous-paste ones. The Golden Horde siliceous-paste wares are interesting and in one file of digital images that Kdirniyazov's colleague, Shamil Amirov, sent me, there are some images using motifs in different colour combinations, for example the polychrome flower motif (Design Motif **2m** – see Appendix A) in black under turquoise – see Figure 4.10. There are new forms, with a type 1.1 coloured-ground relief closed form as well as the turquoise and black one (Fig. 4.8), and the straight-sided beaker (Fig. 4.10) is not found in the Volga assemblages either.

4.5.3. Shemakha Kala (Шемаха-Қала)

Shemakha Kala lies on the south side of the Ustyurt plateau, to the west of Kunya Ürgench in present day Turkmenistan.⁵³³ It is now an extremely arid area and difficult to reach, which is probably why no excavations have been carried out there.⁵³⁴ Unlike most other Khwārazmian sites it was constructed in solid stone blocks, so much survives. An aerial photograph taken in the 1930s reveals a well-planned rectangular walled city.⁵³⁵ Tolstov's mission surveyed the site and published considerable quantities of pottery,⁵³⁶ with a full range of Golden Horde wares. Like Eric Schmidt in Iran, Tolstov also carried out an aerial survey of most of the Khwārazmian sites, and described Shemakha Kala thus:

“It is an early medieval city-fortress surrounded by a rectangle of strong walls with huge towers. Probably the Mongols destroyed this city. The walls between the towers were destroyed, and a row of separately standing rectangular and round towers makes an original impression. But by the 14th century the city thrived again, though its fortifications were never restored. An amazing picture is seen of Shemaha [sic] from the air: we can see how the complex web of streets and lanes passes over the line of ruins of the ancient fortifications, as the city expands to the west, east and north. The layout of the post-Mongol cities was perfectly preserved. The walls of the houses were made of carefully squared stones, ...There are well preserved craft quarters (potters' quarters with hills of

⁵³³ Tolstov (2005), 298-99, fig 99.

⁵³⁴ A fact confirmed by both Nik Boroffka and Yves Porter who have both visited the site.

⁵³⁵ Tolstov (2005), 298, fig 99.

⁵³⁶ Vakturskaya (1959), fig 44.

*pottery slag and iron foundries and smithies), and stone and brick mausoleums surrounding the city.”*⁵³⁷

Unfortunately it is not clear from Vakturskaya’s report on the pottery whether he thought there had possibly been a fineware production workshop at the site or not.⁵³⁸ To the west of Shemakha Kala there is another stone built settlement named Dev Kesken,⁵³⁹ which Tolstov identified as Vazir.⁵⁴⁰

4.5.4. Pulzhaj

Unlike Shemakha Kala, Pulzhaj is constructed in mudbrick. It lies to the north, at the foot of the Ustyurt Plateau, to the south-west of the Aral Sea.⁵⁴¹ The German team made a thorough multi-disciplinary study of the Aral Sea area, concentrating on climate change and settlement patterns, and at Pulzhaj collected several coins and “large quantities of high-quality ceramics.”⁵⁴² These include earlier thirteenth century material⁵⁴³ and Golden Horde types 2.1; 2.3; 2.4; and 2.9.⁵⁴⁴ There is one tiny *lajvardīna* fragment,⁵⁴⁵ some turquoise glazed tiles with underglaze cobalt and black,⁵⁴⁶ and imitation celadon vessels.⁵⁴⁷ What is missing in this assemblage is the diagnostic rosewater bowl.

Pulzhaj must have been on the northern route to the Ural River and Volga settlements. Ibn Baṭṭūṭa makes no reference to stopping here and relates that after Saraichik they travelled without stopping, except to eat briefly, for thirty days before reaching Khwārazm, or Konya Ürgench.⁵⁴⁸ The Russian and Kazakh archaeologists

⁵³⁷ Tolstov (2005), 299-30.

⁵³⁸ Vakturskaya (1959).

⁵³⁹ Porter and Soustiel (2004), 101.

⁵⁴⁰ *Ibid.*

⁵⁴¹ Boroffka et al (2006), 725.

⁵⁴² *Ibid.*

⁵⁴³ Boroffka et al (2005), 273, fig 21.5; 279, fig 26.2; 3; 5; and 7.

⁵⁴⁴ *Ibid.*, 277, fig 24 – all; 279, fig 26.1.

⁵⁴⁵ *Ibid.*, 281, fig 27.13.

⁵⁴⁶ *Ibid.*, 281, fig 27.1-3.

⁵⁴⁷ *Ibid.*, 281, fig 27.10.

⁵⁴⁸ Ibn Baṭṭūṭa (1929), 167.

have indicated that there were caravanserais at regular intervals along this route up to Saraichik.⁵⁴⁹

4.5.5. Conclusion

There is a wealth of ceramic material to confirm that Khwārazm was part of the Golden Horde territories. In the Catalogue there are a couple of bowls from the Timur Museum in Tashkent, said to have been excavated in Samarqand (Catalogue numbers 1.2.5 and 1.2.6), that at first glance look to be Golden Horde too, but closer examination reveals differences in the treatment of the stippled infill and the much darker grey slip. The colour could of course be due to poor conservation and the application of a varnish, so such observations must be treated with caution. Taking the finds from Dehistan (modern Turkmenistan east of the Caspian Sea and to the north of Bojnurd)⁵⁵⁰ into consideration too, I see these two bowls as being more closely related to the Iranian type 1.2, the so-called 'Bojnurd' family, and have classified them as such in the Catalogue. It is curious that there should be such a strong invisible line demarcating the distribution patterns of both wares.

4.6. ARABIAN/PERSIAN GULF SITES

4.6.1. Bahrain

The Danish publication on the Islamic levels at Qala' at Bahrain indicates a good fourteenth century presence,⁵⁵¹ but the published material is selective and not quantitative, so therefore of little use. Manchester University, under the directorship of Timothy Insoll, excavated in Old Bahrain; their finds indicate that the fourteenth century levels are too fragmentary and disturbed to be of any use.⁵⁵²

⁵⁴⁹ Samashev et al (2008), 84.

⁵⁵⁰ Masson (1974), 102.

⁵⁵¹ Frifelt (2001).

⁵⁵² Insoll (2005).

4.6.2. *Julfar – al-Maṭāf, Ras al-Khaimah*

Derek Kennet's study of this much excavated site provides a valuable insight into Hormūzi control of trade within the Gulf area in the fourteenth century.⁵⁵³ He was able to confirm what Williamson was working towards in his study of coastal Iran, where he had already noted a significant increase in sites and "dense settlement around the Gulf."⁵⁵⁴ However, although this provides a useful comparative assemblage of Iranian products, they would appear to be of a provincial class, and as yet not clearly identified in an Iranian context.⁵⁵⁵ The archaeology indicates that Mongol siliceous-paste wares were not introduced to this side of the Gulf until the early 1300s.⁵⁵⁶

4.7. THE MAMLŪK WORLD – EGYPT

The political changes that took place in Cairo in 648/1250 were certainly not reflected in the ceramics and it is impossible to guess how and when these changes actually took place. Catalogue number 3.9.3 could represent an interim experimentation – however, there is no way of knowing for certain at present as there is a problem with the archaeology: little reliable stratification other than sealed pits and drains. It is to be hoped that the French excavations at the north-east section of the Ayyūbid wall in Cairo will eventually clarify some points.⁵⁵⁷

4.7.1. *Alexandria*

In Alexandria a series of excavations have been carried out on the two mounds, Kom al-Dikka and Kom al-Nāzūra, which served as dumps intramuros in the fourteenth and fifteenth centuries and are therefore unstratified,⁵⁵⁸ although Lane reported that they had

⁵⁵³ Kennet (2003).

⁵⁵⁴ Williamson (1973), 57.

⁵⁵⁵ Kennet (2004), 38-40.

⁵⁵⁶ *Ibid.*, 38.

⁵⁵⁷ See Pradines below.

⁵⁵⁸ François (1999), 19.

useful horizontal layers.⁵⁵⁹ Ludolph van Suchem around 1342 describes Alexandria's cleanliness and how it "...is carefully kept clean by watchmen, whose duty it is to see that no dirt be cast into the streets or fountains by anybody."⁵⁶⁰ So as a result of this organisation we can gain an insight into what was in circulation, but no idea of a context. The most recent studies are those of the Polish team who have been excavating Kom el-Dikka, and the pottery is being studied by Małgorzata Redlak.⁵⁶¹

Alexandria was Mamlūk Egypt's principal Mediterranean port, and an entrepôt for all goods coming up the Nile from Qūṣ, and overland from the Red Sea. Throughout the fourteenth century it was well served by Western Mediterranean ships and their merchants were permitted to trade from their residential *fanādiq* (literally 'hotels', but effectively trading houses) within the city.⁵⁶² Their presence is also reflected in the ceramic finds, as is that of the Kārimī merchants who imported spices from the east via Aden.⁵⁶³ Many of the Mamlūk fragments that remain today could have been containers for the high-priced spices outlined in contemporary manuals such as that of Pegolotti's *La Pratica della mercatura*.⁵⁶⁴ "Syrup of Alexandria" was apparently the top most quality of molasses that was packed in glass jars. A *waqf* document informs that there was a glass industry in Alexandria,⁵⁶⁵ and Lane reported signs of this industry in his excavations on Kom al-Dikka.⁵⁶⁶

4.7.2. Cairo/Fuṣṭāṭ

There is frustratingly little published archaeological evidence from the Cairo citadel, and too much emphasis has been placed on the mounds of Fuṣṭāṭ, where at least there is

⁵⁵⁹ Lane (1949), 146.

⁵⁶⁰ Stewart (1895), 47.

⁵⁶¹ Redlak (2004), 46-52.

⁵⁶² Christie (2004), 163-173.

⁵⁶³ Kubiak (1969), 5-30.

⁵⁶⁴ Lopez and Irving (1990), 108-114.

⁵⁶⁵ Christie (2004): 168-9.

⁵⁶⁶ Lane (1949):142.

proof of manufacture of these siliceous-paste wares.⁵⁶⁷ The finds from the American excavations directed by George Scanlon carried out between 1968 and 1984 provide an idea of what was available but few of the later thirteenth/fourteenth century artefacts are associated with domestic structures, as they largely represent Cairo's rubbish, transported from the Mamlūk city.

A Japanese team from Waseda University has been working near the 'Amr mosque since 1978.⁵⁶⁸ In the 1990s it was decided to develop the area to the east of the 'Amr mosque, where Bahgat had discovered some kilns in 1912.⁵⁶⁹ This is known as the Aḥl al-Raya district. They excavated quantities of kiln debris and below this discovered a ninth century water supply system. The process of recording and publishing all this material is ongoing and some twenty volumes are planned, of which two have been completed to date.⁵⁷⁰ It is not clear from Kawatoko's report whether there will be any useful fourteenth century material or not.

Roland-Pierre Gayraud has been excavating the area known as Iṣṭabl 'Antār since 1985;⁵⁷¹ recently his team investigated an 'Abbasid cistern in an area recognised as having pottery workshops from the twelfth century onwards, inside which a stratified typical Mamlūk assemblage was discovered, including imitation celadon wasters (body composition unspecified).⁵⁷² This information was presented in a paper at a conference held in Venice at the end of 2009, and awaits publication. Gayraud was present at a roundtable on Syrian pottery in Aix-en-Provence in May 2010, but he refused to share this material, so at this stage it is not possible to understand his statement in the abstract claiming these finds to represent "un jalon chronologique" – a chronological

⁵⁶⁷ Bahgat (1913), 233-242, pl. IX-XII.

⁵⁶⁸ Kawatoko (2005), 847; and Kawatoko and Shindo (2010).

⁵⁶⁹ Kawatoko (2005), 848.

⁵⁷⁰ Kawatoko and Shindo (2010).

⁵⁷¹ Gayraud (1998), 435.

⁵⁷² Gayraud and Trégliat (2010), 8.

milestone.⁵⁷³ He gives no indication of this work in his article in the *Arts of the Mamluks* volume.⁵⁷⁴

The most informative excavations are those of Stéphane Pradines and his team on the north-eastern walls of the Fatimid city of Cairo together with the Ayyubid fortification wall from the the Burg al-Zafar down to the Burg al-Mahrūq.⁵⁷⁵ Between the mudbrick Fatimid wall and the limestone Ayyubid one the excavators found evidence of fourteenth and fifteenth century Mamlūk houses, together with pits and dumps from the more affluent quarters to the west. Al-Maqrizi had described this poorer housing zone in the fifteenth century.⁵⁷⁶ Amongst their finds was an almost complete type 3.3 panel style bowl (see Catalogue no 3.3.14) which the excavators describe as coming from a thirteenth/fourteenth century domestic context: “The bowl was found in a level of rubbish, but probably not from the poor houses attached to the walls, but from the rich houses inside the town.”⁵⁷⁷ While this is not precise dating, it does place these panel style bowls no later than the fourteenth century.

In addition to this discovery, Pradines is confident that their finds demonstrate the contraction of the city after the 1348 plague when it is reported that around a third of the city's population perished.⁵⁷⁸ By the fifteenth century the north-east portion of the city walled city had become a cemetery and continued as such through the Ottoman period.⁵⁷⁹

⁵⁷³ *Ibid.*

⁵⁷⁴ Gayraud (2012).

⁵⁷⁵ Pradines et al (2009).

⁵⁷⁶ *Ibid.*, 200.

⁵⁷⁷ Pradines, email 17.6.2012.

⁵⁷⁸ Dols (1977), 57-60; Raymond (2001), 140.

⁵⁷⁹ Pradines, lecture to the Islamic Art Circle at SOAS, 13.6.2012.

4.7.3. Quseir Qadim

This is an important site for studying Red Sea trade, with a wealth of correspondence available,⁵⁸⁰ and many other well-preserved organic artefacts, in addition to ceramics. However, the fourteenth century levels are sparse and do not assist this study.

4.7.4. al-Ṭūr

Situated on the Sinai side of the Red Sea, al-Ṭūr only became a major port after 1378 when the then Mamlūk governor improved its facilities.⁵⁸¹ A Japanese team has been excavating the site since 1985. Their focus is the imported Far Eastern wares, and it is an important site for monitoring Mamlūk taste from the late thirteenth century.

According to the excavators one curiosity is that there is no evidence for Chinese blue and white wares being imported in the fourteenth century, whereas there were considerable quantities coming through Aydhab and up to Fuṣṭāṭ at this time.⁵⁸² The excavators suggest it is possible that they have not as yet investigated the relevant section, or there was “something special and particular about the commercial trade using this port at that time.”⁵⁸³

4.8. MAMLŪK GREATER SYRIA OR BILĀD AL-SHAM

From the mid-thirteenth century Mamlūk forces gradually conquered the former Frankish Crusader territories and the Ayyūbid centres in Bilād al-Sham which became collectively known as Mamlūk Syria and today understood as Greater Syria. This area includes all of present day Syria, parts of south-eastern Turkey, Lebanon, Israel, the West Bank, and Jordan (see Map 6, page 36). It was divided administratively into six governorates or *mamālik*, namely: Damascus, Ḥimṣ, Ḥamā, Aleppo, Ṣafad and Karak. Marcus Milwright published a useful gazetteer of Islamic archaeological sites in this

⁵⁸⁰ Li (1999); idem (2001).

⁵⁸¹ Hasebe (2005), 101.

⁵⁸² *Ibid.*, 102.

⁵⁸³ *Ibid.*, 102.

area with a full bibliography in 2001,⁵⁸⁴ building on the Tonghini/Grube bibliography.⁵⁸⁵ Since then many more excavations have been carried out and published.

To supplement Milwright's gazetteer, Avissar and Stern published a concordance of excavated pottery within the boundaries of present-day Israel and the West Bank, which lists many unpublished excavations that have yielded relevant material too.⁵⁸⁶ I have been in correspondence with both authors in an attempt to clarify various aspects of their work, seeking confirmation as to whether there was a siliceous-paste production centre at Baysan (Bet She'an [they use the term 'soft-paste']) as suggested.⁵⁸⁷ Mariam Avissar has since refuted the latter fact in an email correspondence, and added: "Usually there is not much frit-ware, the population was rather poor. Even in a town such as Jerusalem where we have a major excavation at the Wailing Wall Plaza, there is only little frit-ware."⁵⁸⁸ She added that Mamlūk *sgraffito* wares "...are very rare in Israel, and until now have been found only in important Mamluk administrative centers such as Jerusalem and Safed."⁵⁸⁹ A picture is emerging that siliceous-paste wares are only to be found in these administrative centres in Mamlūk Syria, and the bulk of local production was limited to glazed earthenwares.

4.8.1. West Bank and Israel

4.8.1.1. Acre /'Akko/'Akkā

Historians write that when 'Akkā fell to the Mamlūks in 690/1291 this once flourishing port city was devastated, and did not revive until the middle of the eighteenth

⁵⁸⁴ Milwright (2001), 3-39.

⁵⁸⁵ Tonghini and Grube (1989), 59-93.

⁵⁸⁶ Avissar and Stern (2005).

⁵⁸⁷ *Ibid.*, 25.

⁵⁸⁸ Email of 22 November 2008.

⁵⁸⁹ Avissar and Stern (2005), 38.

century.⁵⁹⁰ Continuing excavations reveal that this is not altogether true, but it had certainly lost out to Beirut and Tripoli, as these became the two major Syrian ports.

4.8.1.2. Jerusalem

The topography, political and religious rivalry, and continuous occupation of this city complicate the archaeology considerably. For most of the fourteenth century it was administered from Damascus, and had become a relative backwater, albeit a centre for pilgrimage and piety.⁵⁹¹ Under the British mandate there were excavations on the citadel in the 1930s directed by Johns.⁵⁹² He made a few interesting fourteenth century finds, and identified the Armenian Garden as the next possible area to investigate, which a British-Canadian-Dutch team eventually did in the 1960s.⁵⁹³ Since 1967 there has been a series of rescue excavations,⁵⁹⁴ a complete architectural survey of the Mamlūk city,⁵⁹⁵ and an architectural study of the citadel.⁵⁹⁶

4.8.1.3. Safad

Baybars laid siege to the Templar fortress of Şafad in the summer of 664/1266 and secured it after six weeks.⁵⁹⁷ It has a commanding position overlooking the route between Damascus and ʿAkkā, and therefore of great strategic value. Unable to secure ʿAkkā at this time, it was seen as a useful alternative to control the more vulnerable coastline and after Baybars rebuilt its defences it became the sixth *mamlaka* or governorate in Bilād al-Sham.⁵⁹⁸ Israeli archaeologists have been working on the site

⁵⁹⁰ Buhl (1960), 341.

⁵⁹¹ Goitein (1986), 332.

⁵⁹² Johns (1997), VII.

⁵⁹³ Tushingham (1985); Kay Prag is gradually publishing the rest of the material. The Islamic finds are stored in the Manchester University Museum and have been looked at – there is little in the way of Mamlūk finewares, but interesting Ayyūbid pieces.

⁵⁹⁴ Listed in Avissar and Stern (2005).

⁵⁹⁵ Burgoyne (1987).

⁵⁹⁶ Hawari (in press).

⁵⁹⁷ Amitai-Preiss (1995), 757.

⁵⁹⁸ Drory (2004), 163-4.

intermittently over the years, producing short notices;⁵⁹⁹ the most cogent and tantalising report reads as follows for the fineware finds:

*“Various imports from Syria, Egypt, Italy (Venetian), China (Celadon and Ming) and Spain are present together with local productions. The quality of the assemblage and the absence of kitchen ware denote a rich table set that belonged to a high-ranking person, perhaps the Mamluk governor of the fortress.”*⁶⁰⁰

There is a citation of one Mamlūk *sgraffito* bowl from Şafad in the Avissar/Stern book.⁶⁰¹ Edna Stern is responsible for publishing the pottery from the most recent excavations, but unfortunately she has indicated by email that their method of excavating does not involve recording finds until they are preparing their final publications and in the instance of Şafad this will not be until later this year or next.⁶⁰² She also stated that “In general there are not many well excavated and published Mamluke [*sic*] sites in Israel.”⁶⁰³

Drory’s article outlines Şafad’s history in the late thirteenth/fourteenth centuries and demonstrates that it was both an administrative centre and guardian of the fertile Galilee area with its numerous productive agricultural settlements. With the fall and razing of ‘Akkā in 1291 the Frankish threat was minimised.⁶⁰⁴

Despite the lack of published information on the material culture of Mamlūk Şafad I think there is sufficient preliminary proof to indicate the presence of fine siliceous-paste wares in use.

⁵⁹⁹ Damati (1985), 98; idem (1986), 93-94; idem (1988-9), 159-60; and idem (1989-90), 13.

⁶⁰⁰ Barbé and Damati (2005).

⁶⁰¹ Avissar and Stern (2005), 38.

⁶⁰² Email correspondence with Edna Stern of the Israeli Antiquities Organisation 9 Dec 2008. Still no news. As of October 2012 this publication is still ‘in press’.

⁶⁰³ *Ibid.*

⁶⁰⁴ Drory (2004).

4.8.2. Jordan

Northern Jordan was administered from Damascus, whereas central Jordan sometimes was and in other periods came under Karak. The economy was largely agricultural and in the fourteenth century the Mamlūk administration ensured that yields were high.⁶⁰⁵

4.8.2.1. Al-‘Aqaba/Ayla (‘Aqabat Ayla)

Recent work on the small fort at al-‘Aqaba has revealed several phases of construction, with the fourteenth structure being in Phase IV, comprising the second *khān*.⁶⁰⁶ A preliminary report mentions Mamlūk glazed wares and Chinese blue and white, but no images are included. Denys Pringle gave me a draft of his pottery report, wherein he describes “a handful of pieces of 13th-to-14th century painted pottery” associated with the second building.⁶⁰⁷ He goes on to say: “All had a friable siliceous fabric, with black decoration under a turquoise glaze or black and blue decoration under a colourless transparent glaze.”⁶⁰⁸ In other words type 3.3 and Milwright's turquoise and black wares.⁶⁰⁹ This is a perfect example of an administrative post with some fine wares in addition to kitchen wares.

Before these investigations the fort was generally regarded to date from the early sixteenth century - see the *Encyclopaedia of Islam* entry:

*“At the very end of the Mamluk period (920/1514-15) Sultan Qansawh al-Ghawrī, through the agency of his architect Khāyir Bey al-‘Alā ī, erected the present ruined fortified khan at al-Aqaba to protect pilgrims from the attacks of predatory bedouin bands.”*⁶¹⁰

⁶⁰⁵ Walker (2004).

⁶⁰⁶ de Meulemeester and Pringle (2004), 18.

⁶⁰⁷ Pringle (nd), sent by email on 21.10.2008, 16.

⁶⁰⁸ *Ibid.*

⁶⁰⁹ Milwright (2003).

⁶¹⁰ Glidden (1960), 515.

4.8.2.2. Hisbān

The ancient mound or *tell* Hisbān has been excavated sporadically by an American team since 1968, with a long gap during the 1980s and early 1990s.⁶¹¹ More recent multidisciplinary investigations concentrated on the *quṣūr*, which was partially excavated in the 1970s.⁶¹² The complex includes a bathhouse and sugar storage room; and the excavators believe they have uncovered the residence of the Mamlūk governor of the Balqā', the administrative sub-district of which Hisbān was the capital in the first half of the fourteenth century.⁶¹³ Al-Nāṣir Muḥammad is reported to have visited once.⁶¹⁴ The ceramic finds indicate that the *tell* was abandoned in the 'Abbasid period and not reoccupied until the Mamlūk period. However, the Mamlūk material reflects its provincial, rural nature and there are few siliceous-paste finds, largely handmade cooking pots, glazed-relief wares and many sugar pots from the stores. So, despite its moments of grandeur, on a daily basis if we take the presence of fine siliceous-paste wares to indicate a level of urban sophistication, relative wealth and administrative importance, Hisbān definitely was a rural centre.

4.8.2.3. Karak

Karak has received considerable attention, being the subject of Marcus Milwright's doctoral thesis, now published as *The Fortress of the Raven*.⁶¹⁵ This gives an account of the history and archaeological activity at Karak. Unfortunately most of these ceramic finds are from unstratified dumps and surveys, and the only controlled excavation published is an extremely small-scale one carried out by Robyn Brown in the so-called 'reception hall'.⁶¹⁶ I should add that the only likelihood of finding objects in situ at any

⁶¹¹ Walker and LaBianca (2003), 443.

⁶¹² *Ibid.*, 447,

⁶¹³ *Ibid.*

⁶¹⁴ *Ibid.*

⁶¹⁵ Milwright (2008).

⁶¹⁶ Brown (1989).

of these sites is as the result of an earthquake and subsequent abandonment. It was certainly normal to clean up and dump any debris outside the residential space before refurbishment or rebuilds, sometimes causing a reverse stratigraphy.⁶¹⁷ While being off the main trade and *barīd* routes, Karak was still key to Mamlūk activities and relations with the bedouin tribes, who not only supplied their armies with horses, camels and sheep, but also intelligence, the *barīd*, protection for the *hajj* caravans and essential military assistance.⁶¹⁸ The Qalawūnids used it as a ‘nursery’ for teaching the young princes the importance of the desert and cultivating good relations with these tribes. It was particularly favoured by al-Nāṣir Muḥammad who spent his periods of exile before 1310 here. Thus one would expect to find fine wares in the ceramic assemblage. It is assumed that the princes would have used fine metalwares and Chinese imports, and there were a few of the latter amongst the published finds – twenty sherds in total, fifteen of them celadon.⁶¹⁹ Around 30% of the monochrome alkaline-glazed fragments identified appear to have been imitation celadon wares. It is important to understand the very small areas uncovered at Karak so these finds cannot be deemed truly representative. By drawing analogies with Ottoman practices, when true Chinese wares were stored in the treasury,⁶²⁰ perhaps similarly under the Mamlūks fine metalwares and Chinese imports were equally valued and moved with the court. In the words of Milwright, quoting Ibn Iyās:

*“An indicaton of the items stored in the royal treasury is to be found in a description of the departure of the maḥmal from Cairo to Makka in 919/1514. In the baggage were 20 camel loads of utensils from the royal service (sharāb-khānāh) including vases of porcelain, of lapis lazuli, of rock crystal, and royal furniture, silver ewers, inlaid basins, two chandeliers and other beautiful items.”*⁶²¹

⁶¹⁷ Personal experience in Area C of the Amman Citadel excavations in the 1970s.

⁶¹⁸ Walker (2009), 87.

⁶¹⁹ Milwright (2008), 238.

⁶²⁰ Atasoy and Raby (1989), 28.

⁶²¹ Milwright (1999): 514, quoting Ibn Iyās (1960-74): iv, 409.

The young al-Nāṣir Aḥmad is reputed to have moved the entire contents of the state treasury in Cairo to the castle in 1341.⁶²² I would therefore propose that these finds represent tablewares in use by the military and civil administrators who were the full-time occupants. Milwright's catalogue pages illustrate line drawings of similar examples.⁶²³

4.8.3. Lebanon

With the fall of the Crusader kingdoms the coastal ports gained in wealth and importance with the Levantine trade. In the absence of a navy Mamlūk policy was to defend the coast from inland fortresses.⁶²⁴ As a consequence the coastal cities' fortifications were dismantled, except around the harbour, and the Arabs took over the city; Baybars settled Turcoman tribes along the coast to facilitate raising an army as and when needed.⁶²⁵ A line of communication to Damascus for military backup as and when needed was also established. Following the fall of 'Akkā in 1291 papal bulls were issued to ban trade with the Mamlūks, but these were quickly circumvented by absolutions in exchange for a fifth or fourth of the profit.⁶²⁶

*“Beirut profited from the open trade. Frankish merchants came mainly from Venice, Genoa, the kingdom of Aragon and from the cities of southern France. In Beirut they bought spices from India, silk from Iran, and high quality Syrian cotton, and they sold cotton clothing of all sorts and quality. These were mainly of Italian, English and Flemish manufacture.”*⁶²⁷

4.8.3.1. Beirut

Beirut was also a vital node in the wood and iron trade, besides serving as a port for Damascus in the fourteenth century.⁶²⁸ The city centre was badly damaged during the Civil War in the 1970s, but this gave archaeologists an opportunity in 1992 to

⁶²² *Ibid.*, 84.

⁶²³ *Ibid.*, a) cat. page 30.1 ; b) cat. page 32.7; and c) cat. page 26.21.

⁶²⁴ Fuess (1997-1998), 86-87.

⁶²⁵ *Ibid.*, 88.

⁶²⁶ *Ibid.*, 95.

⁶²⁷ *Ibid.*, 95-96.

⁶²⁸ Elisséeff (1960), 1138.

inaugurate the largest city centre excavations ever.⁶²⁹ The Mamlūk levels have been identified and labelled Phase III.⁶³⁰ Unfortunately the processing continues and to date there is no sign of a publication which promises to give “serious revision” to the dating of medieval ceramics.⁶³¹

4.8.3.2. Tripoli

Tripoli surrendered to Qalāwūn in 688/1289, the old port town was destroyed and a new town established around the Pilgrim’s Hill.⁶³² Between 1971 and 1975 the Lebanese Department of Antiquities, under the direction of Hassan Salamé-Sarkis, carried out archaeological investigations in four areas: two in the city (including the citadel); one on Palm Island; and another in Ehden, up in the mountains about 40km to the east of Tripoli.⁶³³ Only types **3.3**; **3.7**; and **3.8** appear to be represented. The ‘vase aux canards’ (see Figs 4.13 and 4.14)⁶³⁴ is seemingly unique, like a potter’s experimentation piece. It is difficult to see on a small image, but if you magnify the band encircling the tondo what looks to be a variation on Īlkhānid motif **1k** is in fact fine circular scrolling (instead of diagonal lines) in a finely drawn black line with larger blue dots superimposed. The ground in the tondo for the ducks is clusters of four little dots as on type **3.3** panel style examples. The small fish pond is seemingly modelled on those depicted on thirteenth century Kashan lustre tiles and bowls.

The underglaze-painted wares came from three of the sites: the two Tripoli ones and Palm Island, which must have served as an outlying administrative post, or a trans-shipping point. According to Tripoli’s website Palm Island has fresh well water.⁶³⁵ It is noteworthy that there are no coloured-ground wares and apparently no closed forms.

⁶²⁹ Seeden and el-Masri (1999), 393.

⁶³⁰ El-Masri (1997), 109.

⁶³¹ *Ibid.*, 110.

⁶³² Buhl/Bosworth (2000), 215.

⁶³³ Salamé-Sarkis (1975), 62.

⁶³⁴ Salamé-Sarkis (1980), 197, pl LXIV, col pl X.

⁶³⁵ <http://tripoli-city.org/palm.html>. Accessed 2.9.2011.

Other than the duck bowl, the other five examples in Figure 4.13 correlate with wares excavated at West Bank⁶³⁶ sites and Ba‘ albakk.

4.8.3.3. Ba‘ albakk

Sarre’s work at Ba‘ albakk in the early 1900s identified all the common shapes and designs to be found in this series.⁶³⁷ Although Ba‘ albakk was damaged by the Mongols in 1260,⁶³⁸ according to Heinz Gaube Mamlūk additions were built on the foundations of the Ayyūbid structures, and the citadel complex was united into a new palatial complex. By the fourteenth century Ba‘ albakk, a *wilāya* of Damascus, was not on the main *barīd* route to Ḥimṣ and Tripoli,⁶³⁹ but it did protect the fertile Beka’a valley, and was an important agricultural and manufacturing centre, as well as an administrative one.

Work funded by the DAI continues at the site under the direction of Dr Margarete van Ess. When I visited the site in September 2010 they were excavating Mamlūk houses in the area of the Forecourt and Propylea which did not produce any significant fine ware finds.⁶⁴⁰ This area is without the main fortified complex, so probably the inhabitants were not part of the Mamlūk administration. Verena Daiber published material excavated by the Lebanese Department of Antiquities between 1967 and 1975, the records for which were lost during the Civil War, so they add interesting examples to Sarre’s assemblage, but are yet another unstratified addition to the corpus.⁶⁴¹ They are a mixture of Ayyūbid and Mamlūk fragments, and amongst the latter there are both types 3.1 and 3.2, the relief and non-relief coloured-ground wares.

⁶³⁶ Avissar and Stern (2005), pl 9 and 10.

⁶³⁷ Sarre (1925), 116, figs. 1-10.

⁶³⁸ Gaube (1998), 319.

⁶³⁹ Sourdel-Thomine (1960), 970-71.

⁶⁴⁰ Conversation with Dr van Ess in Berlin June 2011. Dr Valentina Vezzoli will give a paper on these and a subsequent season's finds at the 10th International Congress on Medieval Pottery in the Mediterranean in Silves, October 2012.

⁶⁴¹ Daiber (2006), plates 18-33.

Another variation on Īlkhānid motif **1k** is evident in a type **3.2** dish on plate 25.⁶⁴² This time the fine black line is a semi-circle.

4.8.4. Syria

By the fourteenth century the last of the Ayyūbid administrators had been replaced by Mamlūk ones, the Mongol threat was greatly diminished and by the third reign of al-Nāṣir Muḥammad (709-41/1310-41) a strong centralised government in Damascus was established under Tankiz ibn ‘Abd Allāh al-Ḥusāmī al-Nāṣirī Amīr Sayf al-Dīn (d 740/1340) in 712/1312.⁶⁴³ He instigated and inspired a period of investment and prosperity endowing many buildings, encouraging others to do likewise and renewing the fortifications of border posts, and as a result secured communications. With the signing of the Treaty of Aleppo with the Mongols in 1322-23 the stage was set to innovate and expand. It is likely to have been during this period that the demand for new pottery styles and decorative ideas was greatest.⁶⁴⁴ Mamlūk ceremony involved a measure of showmanship and public audiences⁶⁴⁵ - Damascus, Aleppo and the other cities would have mirrored Cairo in this respect. Archaeology has yet to provide the answers as to how these ideas of stylistic change were disseminated - it can only present a range of materials in circulation. There are no imported ceramic fineware prototypes evident in these assemblages, other than Chinese wares.

4.8.4.1. Aleppo

The Syrian-German excavations on the Aleppo Citadel⁶⁴⁶ concentrated initially on the old trench made by French archaeologist G. Ploix de Rotrou who had worked in Aleppo between the years 1929-31 during the Mandate period and was the first to discover

⁶⁴² *Ibid.*, j 50191.

⁶⁴³ Conerman (2008), 4-5; and Kenney (2009), *passim*.

⁶⁴⁴ Ward (forthcoming).

⁶⁴⁵ Stowasser (1984).

⁶⁴⁶ Gonnella (2001).

Ancient Near Eastern traces on the citadel hill.⁶⁴⁷ This former French trench was cleared in 1996 and has been systematically enlarged to the east, north and south since 1997.⁶⁴⁸ There have been ten seasons of excavation and two study seasons to date. The total area of the citadel within the defensive walls is an ellipse with a diameter of 285 by 156 metres, the area excavated is around 1,250 square metres. A Mamlūk rubbish dump was encountered within this area, yielding a wealth of Chinese blue and white (Yuan and Ming) and celadons, which John Carswell is preparing for publication. The Mamlūk material has yet to be studied, but several random examples have been included in the Catalogue, chanced upon when sorting through the mass of material in the pottery stores. At a glance this material is much closer to the Ḥamā corpus than that of Damascus, an opinion shared by my colleagues John Carswell, Véronique François and Julia Gonnella.

4.8.4.2. Buṣrā

Buṣrā lies 115km south of Damascus and served as its southernmost outpost,⁶⁴⁹ drawing its prosperity from agriculture and by serving as the gathering place for the annual pilgrim caravan to the Holy Cities. It administered the fertile basaltic Ḥaurān and kept a check on the powerful tribes of the area. As at Ba‘albakk the military engineers had reused the existing pre-Islamic structures to fortify the site, so the former Roman theatre was transformed into the citadel (see Figs 4.19 and 4.20). In the 1990s a German team under the direction of Michael Meinecke made a thorough study of the site.⁶⁵⁰ The published fragments are extremely small, but serve to confirm a Mamlūk presence with a full assemblage of the types listed in the Catalogue.

⁶⁴⁷ Ploix de Rotrou (1930).

⁶⁴⁸ Gonnella, Khayata and Kohlmeyer (2005).

⁶⁴⁹ Meinecke (1996b), 31.

⁶⁵⁰ Meinecke et al (2005).

4.8.4.3. Damascus

One of the most comprehensive excavations to date was carried out by a Franco-Syrian archaeological mission on the citadel, between 1999 and 2003 - only a few brief reports have been published to date. Ceramologist Véronique François, who worked on both the Mamlūk and Ottoman material, has given me a copy of her unpublished report;⁶⁵¹ she also made a CD-Rom on this material which is available from the CNRS in Aix-en-Provence. François emphasises that contrary to the abundance of these siliceous-paste wares in museum collections and the literature, they only represent 19% of the glazed fine-wares retrieved, amongst which there were only six cobalt and lustre fragments. She sees these as most probably Damascus products which ceased production in the early fourteenth century. The most common product is underglaze blue and black on white (26%) with blue and white (20%) being almost as numerous. Unlike most other commentators François is very cautious about the importance of Damascus as a production centre and is guarded in her attributions, beyond the fact that there is abundant proof to demonstrate that it was one of the Syrian centres. She also emphasises the paucity of Chinese imports in the areas excavated, which included the so-called columned reception hall, number 2 on Plan 3.1. As for the Tripoli corpus, types 3.1 and 3.2 – the Mamlūk coloured-ground relief and non-relief wares, respectively - are totally absent in their finds. We know that this ware was present elsewhere in Damascus as de Lorey published a dish from his nearby Bab al-Sharqi excavations – see Catalogue number 3.2.6. This demonstrates the serendipity of archaeology and how it can be dangerous to rush to definitive conclusions on what is after all slim evidence.

⁶⁵¹ François (forthcoming).

4.8.4.4. Hamā

Ḥamā was one of the six *mamlaka* or governorates of Bilād al-Sham, and a wealthy administrative centre. The citadel that dominates the Orontes was excavated by a Danish team during the 1930s, and their finds provided a varied corpus of these Mamlūk wares, which formed the backbone for future studies. However, with little stratigraphy, there are limitations to their work.⁶⁵² They saw Timur's conquest in 1401 as being the end of the site's use, ignoring evidence for fifteenth century material and a later Ottoman occupation, albeit on a much smaller scale. Many of their finds are on display in the Damascus National Museum and the Ḥamā Museum, and a few have been included in the Catalogue (nos 3.1.2; 3.1.4; and 3.2.9). I have yet to study their finds housed in the National Museum of Copenhagen.⁶⁵³

4.8.4.5. Hims

According to Geoffrey King, his excavations at Ḥimṣ are not helpful for this study, as the French occupational forces during the mandate period rubbed out most of the Mamlūk levels,⁶⁵⁴ although he does report the possibility that future work in Area C may provide some answers on stratified material.⁶⁵⁵

4.8.4.6. Palmyra, Qal'at Ja'bar and al-Rahba

Turning to the Euphrates' fortified border posts such as al-Rahba and Qal'at Ja'bar, and Palmyra, which guarded the eastern desert routes, the evidence is frustratingly slim for the latter. Al-Rahba was besieged several times by the Mongols and was one of their major crossing points. After 1260 the settlement moved away from the Euphrates and was centred on the polygonal walled citadel rebuilt on an outlying bluff from the desert escarpment. Al-Rahba was a major link in the caravan route to Tadmūr/Palmyra and on

⁶⁵² Riis and Poulsen (1957) and Pentz (1997).

⁶⁵³ I now have funding for this from the Barakat Trust and will begin in January 2013.

⁶⁵⁴ Personal communication and King (2002): 39.

⁶⁵⁵ King (2002-3), 417.

to Damascus. A French team excavated the two al-Raḥbas in the 1970s, but the citadel results remain unpublished; Thierry Bianquis gives a tantalising précis of their work in his *Encyclopaedia of Islam* entry:⁶⁵⁶

“The pottery and coins which have been analysed are mainly Mamlūk, with some Ayyūbid sherds in the deeper layers. The houses around this great building have not yet been excavated... Under the Mamlūks, the citadel was rebuilt and held an important garrison, and it protected the new town which had grown up right at its feet. The nā`ib commanding it had a high place in the military hierarchy.”

Rousset published the mosque the French team excavated in the ‘new town’ at the foot of the citadel – the various phases reflect a population increase after Baybars had rebuilt the citadel in the 1260s,⁶⁵⁷ due to the town moving up from the Euphrates. No pottery is published and in a footnote she states that generally it is relatively poor and that any diagnostic pieces extant are non-stratified and so of no scientific value.⁶⁵⁸

Cristina Tonghini’s work at Qal‘at Ja‘bar demonstrates the potential for limited archaeological investigations to give a preliminary insight.⁶⁵⁹ Her study revealed that this frontier fort had a few of these wares, which she categorises as ‘Fritware 3’, and like Mason favours Damascus as the production centre.⁶⁶⁰ There were more open forms than storage jars, so she concludes that it was more commonly used as tableware here.⁶⁶¹ But again, she is drawing conclusions from work in a limited area, so it would be rash to make any definitive conclusions.

More recently a Polish team has been investigating Qal‘at Shirkuh at Palmyra and found evidence of both Ayyūbid and Mamlūk occupation.⁶⁶² The pottery is

⁶⁵⁶ Bianquis (1995), 396.

⁶⁵⁷ Rousset (1998), 197.

⁶⁵⁸ *Ibid.*, 198, footnote 39.

⁶⁵⁹ Tonghini (1996).

⁶⁶⁰ Franchi et al (1995), 197-205.

⁶⁶¹ Tonghini (1996), 51-52.

⁶⁶² Bylinski (1999), 151 ff.

being studied by Anna Witecka,⁶⁶³ but not report has been published as yet as far as I know.

4.8.4.7. Shayzar

The study of this fortified settlement (see Figs 4.22 and 4.23) 28km north-east of Ḥamā is ongoing under the direction of Cristina Tonghini.⁶⁶⁴ Martina Rugiadi and Valentina Vezzoli are working on the ceramic finds. The Syrian Department of Antiquities under the direction of Mr Ibrahim Shaddoud has also excavated parts of the site prior to the consolidation and conservation of walls in order to make the site safe for visitors. Current events in Syria have prevented any opportunity to look at their material. According to a quote from al-Khazrajī Shayzar was associated with pottery production;⁶⁶⁵ when he was itemising vessels needed for food for guests attending his sons' circumcision celebrations he mentions "Shayzar made" ones.

4.8.4.8. Barīd Posts

Another findspot for these finer wares is at government *barīd* posts, some of which also had adjacent commercial caravansarais⁶⁶⁶ such as Qaṣr al-Ḥayr Sharqī.⁶⁶⁷ These were important nodes of communication, for both trade and transmitting essential intelligence on Mongol movements, until the real threat had been removed in the 1320s. But this fear persisted and was justified, as indicated by Timur's activities in the late 1390s/early 1400s. In addition it was always necessary to keep an eye on the tribes and foster good relations with them. These centres have small amounts of alkaline glazed siliceous-paste wares in their ceramic finds, which again indicates that this was the tableware of choice for the administrative classes, the next best thing to the imported Chinese services that their rulers would have been using.

⁶⁶³ *Ibid.*, 151.

⁶⁶⁴ Tonghini (2003) 179 ff.

⁶⁶⁵ See Chapter 5, page 198, footnote 725 and text.

⁶⁶⁶ See Silverstein (2007).

⁶⁶⁷ Grabar et al (1978), 204-213.

4.9. ARCHAEOLOGICAL FINDS THAT INDICATE TRADE CONTACTS AND SITES THAT REFLECT THE BREADTH OF MEDIEVAL TRADE

This list represents a tiny prism into what was acknowledged as being an intricate trade network in both the Mediterranean and Baltic worlds.⁶⁶⁸ Venice and Genoa were the leaders in the Mediterranean and Black Sea maritime trade, and “played pivotal roles in joining Europe to the ongoing world economy of the east.”⁶⁶⁹ Novgorod acted as a vital node for the Baltic and its links with Sigtuna, Sweden, for example, are reflected in Egyptian and Syrian ceramic finds from the eleventh century onwards.⁶⁷⁰ By the fourteenth century these included Spanish lustre wares too.⁶⁷¹

4.9.1. Novgorod

Medieval Novgorod lies on the River Volkhov at the northern end of the Baltic-Black Sea and Caspian-Baltic trade routes.⁶⁷² Although it was never conquered by the Mongol hordes it was certainly tributary to them and became a major trading partner. It has been investigated scientifically since 1932, and these excavations continue, with around forty excavations so far carried out across the medieval area.⁶⁷³ The city was constructed in wood, which has left up to five metre deposits of organic material, so dating evidence is provided principally through dendrochronology.⁶⁷⁴ Eastern pottery finds are viewed by the excavators as “pottery exchanged through personal contact,”⁶⁷⁵ and not commercial imports. The excavators believe finds can be “dated with quite a high level of precision using the dendrochronological data” and so therefore it is possible to be much more precise than in most eastern contexts.⁶⁷⁶ These finds present well-dated contexts for

⁶⁶⁸ Jackson (2005).

⁶⁶⁹ Abu-Lughod (1989), 102.

⁶⁷⁰ Roslund (2008), 190.

⁶⁷¹ *Ibid.*

⁶⁷² Brisbane and Gaimster (2001), vii.

⁶⁷³ Brisbane and Orton (2006), 7.

⁶⁷⁴ *Ibid.*, 9.

⁶⁷⁵ *Ibid.*, 6.

⁶⁷⁶ Koval (2006), 162.

medieval wares from the late-ninth through to the fifteenth centuries.⁶⁷⁷ By the mid-fourteenth century out of 104 fragmentary imports 91 came from the ‘Volga region ruled by the Golden Horde.’ The excavators calculated this as amounting to twenty-one complete vessels.⁶⁷⁸ There were no Syrian vessels found in mid-thirteenth to mid-fourteenth century levels, and two in the mid-fourteenth to fifteenth century ones, whereas in the twelfth to mid-thirteenth century fragments for fourteen complete vessels were identified.⁶⁷⁹ Most of the Golden Horde finds date to the second third of the fourteenth century, which ties in well with the Selitryonnoye date for the first products from the large workshop kilns which is 1330-1360.⁶⁸⁰ Only two Chinese celadon sherds have been found.⁶⁸¹ Novgorod is thus an important source of information, especially as a counter balance to Golden Horde finds in the lower Volga basin. It should be noted that as far as can be judged from the publications available, all these finds were open forms.

4.9.2. Moscow

Moscow was certainly tributary to the Sarays, but after the Mongol armies had devastated many Russian cities she was never occupied by the Golden Horde forces, and was permitted to administer herself.⁶⁸² Excavations in the Kremlin and at other city sites have uncovered considerable quantities of Golden Horde wares which Koval has published in several articles in archaeological journals such as *Russian Archaeology* which have recently been collated in a book.⁶⁸³

⁶⁷⁷ Koval (2006), 188, table 10.2.

⁶⁷⁸ *Ibid.*

⁶⁷⁹ *Ibid.*, 188.

⁶⁸⁰ Fedorov-Davydov (1984), 156-57. See Chapter 6, section 6.3 also.

⁶⁸¹ Koval (2006), 184.

⁶⁸² Halperin (1987), 30.

⁶⁸³ Koval (2010). For a full list of articles in English see the bibliography to Koval (2006), 211.

4.9.3. Ryazan

Ryazan lies 196km south-east of Moscow and in 1237 was taken by Batu before Moscow. Koval published a small Īlkhānid lustre lotus bowl amongst some late thirteenth century excavated finds (see Fig. 4.25), with Golden Horde products being notably absent. This adds to the evidence from Novgorod that Syrian or Iranian-derived ceramics were in circulation until the Golden Horde pottery production was fully established in the third decade of the fourteenth century, and these then supplanted the Near Eastern products.

4.9.4. Avignon and Neighbouring Centres

In 1977 some 57 fragments, mainly jars and *albarelli*, were found in the west garden of the Petit Palais, Avignon along with some Chinese celadon sherds in a context dated to the second half of the fourteenth century.⁶⁸⁴ With the arrival of the Popes in Avignon at the beginning of the fourteenth century there was a massive clearance and rebuilding in the medieval city, providing excellent archaeological contexts. Other fragments were found in various locations in the south of France, including Carcassonne, Fréjus, Lyon, Aigues-Mortes and Marseille. All these examples are Syro-Egyptian wares, however an inventory of apothecary Jacques Raynier of Aix dated 24 October 1466 does stipulate an Iranian jar containing opiates; the only record that I have found to date of an Iranian pot traded as a container.

4.9.5. Venice and Genoa

A useful article listing eleventh to fourteenth-century imports to the Veneto cites several fourteenth century siliceous-paste finds: there is one tiny *lajvardīna* fragment recorded from the Palazzo Zambelli in Padua,⁶⁸⁵ and a coloured-ground Sultanabad fragment too.

⁶⁸⁴ Thiriot (1995), 25-37; idem (1991), 285-303.

⁶⁸⁵ Saccardo, Lazzarini and Munarini (2005), 402, fig. 8.13; for a colour illustration see Carboni (2007), fig. 9.

The former could have come from the Golden Horde, and the latter could well be incorrectly identified - it is not illustrated and I have not been able to trace the publication in which it is. There is a complete Mamlūk panel style (type 3.3) *albarello* used as a reliquary container in the tomb of Saint Nicolò da Myra, on the Lido.⁶⁸⁶ There are two unpublished fragmentary jars from the Palazzo Maldura, Padua, apparently in the style of Catalogue number 3.3.1.⁶⁸⁷ It is possible that there are many more hidden in museum reserves or incorrectly identified like the one Golden Horde fragment in Genoa – see Catalogue type 2.2 discussion.⁶⁸⁸ In the same Figure 34 of Mannoni's publication, number 4 appears to be the carinated lower half of a Mamlūk *albarello*; it certainly has a siliceous-paste body. This was found during excavations in the San Silvestro monastery in Genoa.⁶⁸⁹

Deborah Howard's work on fifteenth century Venetian consular records from Damascus, which itemise deceased merchants' personal effects and merchandise to be repatriated, also included tablewares and ceramic containers. One of the frequently mentioned commodities was green ginger – apparently this has to be preserved in alcohol, so would certainly have needed a glazed jar for suitable storage. These would have been sealed with a piece of animal's bladder, which is easy to apply when fresh and dries to become an efficient seal. Such a method of sealing storage jars was followed well into the nineteenth century throughout the world until the advent of the screwtop glass jar.

⁶⁸⁶ *Ibid.*, 402, fig 6.

⁶⁸⁷ *Ibid.*, 402.

⁶⁸⁸ Mannoni (1975), fig 34.1, col pl II, #31.

⁶⁸⁹ *Ibid.*, fig 34.4.

4.9.6. London

Wendy Childs has worked on customs accounts for Spanish imports to England, which apparently exist from 1303 (albeit patchily). She indicates the problems involved with these records for transhipped commodities:

*“The pottery imported as containers presents a different problem. The origin of the pottery is never given and has to be assessed from the general provenance of the ships and shippers and cargo.”*⁶⁹⁰

Many of these ships were Venetian and Genoese. She cites one instance of pottery imported as vessels described in 1442 when Marco de Priole’s Venetian galley unloaded 40 jars from Damascus.⁶⁹¹ Fragments of nine *albarelli* were found in a late fifteenth century chalk-lined cesspit at Plantation House, Fenchurch Street, in the City of London; according to their shape, as defined in the following chapter, these are all Mamlūk imports.⁶⁹² The archaeological record can certainly assist the documentary evidence and identify the origins of such containers, yet as in any continuously occupied city there is an element of chance as to whether such items are ever uncovered.

4.10. CONCLUSION

The objective for this chapter is to establish whether the archaeology of contemporary sites in the two other political areas and those of their trading partners can possibly help to answer the recurring question as to who influenced whom with respect to the decorative designs on these vessels. In addition, discover whether it is possible to explain what was involved in this process. Archaeology certainly does not reveal a cross-fertilisation of ideas through material examples, for there are negligible imports to be copied. If the potters were copying ‘foreign’ ideas you would expect to find fragmentary examples of the prototypes. For example, in the past it was always assumed

⁶⁹⁰ Childs (1995), 30.

⁶⁹¹ *Ibid.*, 28.

⁶⁹² Pearce and Martin (2004), 99-119.

that the Egyptian and Syrian potters copied coloured-ground prototypes in circulation from Īlkhānid Iran, yet only one single fragmentary piece has been found in a Mamlūk context, and that is dealer derived with a general label 'from Fustāṭ', so not totally secure.⁶⁹³

There has been a long history of Muslim potters copying Chinese models which Lane traced back to the ninth century.⁶⁹⁴ The potters in all three political groups copied Chinese shapes, such as Longquan celadon lotus or hemispherical bowls, and there are plenty of examples in the archaeological record to demonstrate this (see Fig. 4.25). There is also evidence for imitation celadon examples being produced in the same kilns as underglaze-painted ones,⁶⁹⁵ yet the latter had distinctive decorative designs. The other Chinese shape that was copied is the flattish shallow dish with a ring foot and broad flat rim, as in Figure 4.26. Chinese imports served a double purpose – satisfying the demand for luxury ceramics and perhaps more importantly serving as ballast for higher value lighter commodities such as the many spices the Kārimī merchants were importing.⁶⁹⁶ In the next chapter the diagnostic differences and similarities in both shape and decorative design of these local products are outlined and discussed.

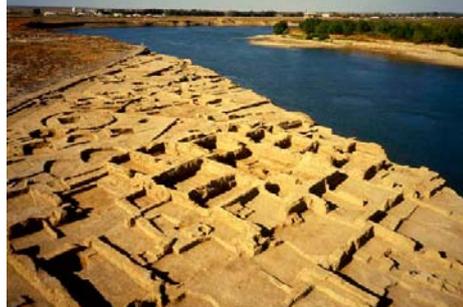
⁶⁹³ See Catalogue number 1.1.13.

⁶⁹⁴ Lane (1947), 13.

⁶⁹⁵ Bahgat (1913), 233-242, pl. IX-XII; Bahrāmī (1938), 228 ; Fedorov-Davydov (1984), 267, ill 16.

⁶⁹⁶ For Kārimī merchants see Tsugitaka (2006), 141 ff.

4.11. FIGURES

	
<p>Fig. 4.1 – The Kama River at Bolgary.</p>	<p>Fig. 4.2 – Bolgary today – the citadel complex, church and museum building.</p>
	
<p>Fig. 4.3 – Saraichik – note how the river has cut into the site. After Samashev et al 2008.</p>	<p>Fig. 4.4 – Saraichik – part of a public bath house – note the large cauldron. Presumably the corpse was trapped in the complex at a later date when the baths were no longer in use. After Samashev et al 2008.</p>
	
<p>Fig. 4.5 – Baghdad's bridge of boats, taken from Rashid ad-Din's <i>Compendium of Chronicles</i>, Diez album, 14th century.⁶⁹⁷ Image from internet.</p>	<p>Fig. 4.6 – Mizdakhkan – the ancient settlement from the necropolis.</p>

⁶⁹⁷ Staatsbibliothek Berlin, Orientabteilung, Diez A fol. 70, http://commons.wikimedia.org/wiki/File:DiezAlbumsFallOfBaghdad_b.jpg.



Fig. 4.7 – Mizdakhkan necropolis – there is so much *baraka* from the earlier tombs that the ancient mound has become one large graveyard.



Fig. 4.8 – Mizdakhkan closed form of type 2.5 decorative design. These closed forms do not feature in the Volga reports, except as earthen-wares.⁶⁹⁸



Fig. 4.9 – Mizdakhkan – tiles marking the *mihrab* in the mausoleum of Muzlūm Khān Zūlū. Image from Mizdakhkan website.



Fig. 4.10 – Mizdakhkan beaker in black under transparent turquoise (type 2.5), with a typical stylised polychrome (type 2.7) flower.



Fig. 4. 11 – Shemakha Kala – now deserted walled city on the Ustyurt Plateau, Turkmenistan. After Porter and Soustiel 2004.⁶⁹⁹



Fig. 4.12 – Dev Kesken – now remote site on the Ustyurt Plateau west of Shemakha Kala. Tolstov identified the site as Vazir. After Porter and Soustiel 2004.⁷⁰⁰

⁶⁹⁸ Amongst the material sent by Amirov.

⁶⁹⁹ Porter and Soustiel (2004), 61.

⁷⁰⁰ *Ibid.*, 60.



Fig. 4.13 – Underglaze painted wares from Tripoli. After Salamé-Sarkis 1980.⁷⁰¹

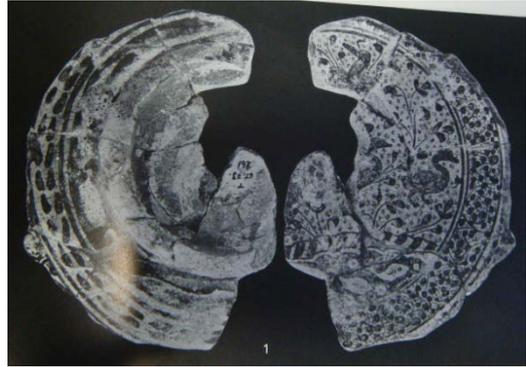


Fig. 4.14 – The ‘duck bowl’ from Tripoli. After Salamé-Sarkis 1980.⁷⁰² Note the band around the tondo which is a version of Īlkhānid motif **1k** – the dot and dash. The band of oblong blobs on the exterior consists of deconstructed fish.



Fig. 4.15 – Ba' albakk complex from a roof in the new town.



Fig. 4.16 – Ba' albakk – section of the citadel wall incorporating Hellenistic structures into the defences, west of the Temple of Bacchus.

⁷⁰¹ Salamé-Sarkis (1980), col plate X.

⁷⁰² *Ibid.*, plate LXIV.



Fig. 4.17 – A view eastwards over Aleppo towards the citadel from the television station hill.



Fig. 4.18 – The Syro-German excavated area with the basalt reliefs of the Hittite Storm God temple at the base.



Fig. 4.19 - Buṣrā citadel – the white line is a monumental inscription.

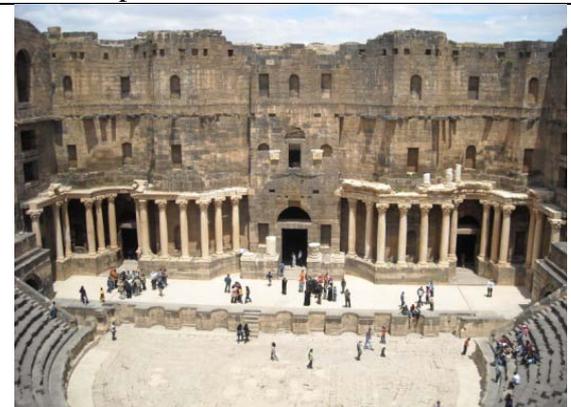


Fig. 4.20 - Buṣrā citadel interior with the much restored Roman theatre.



Fig. 4.21 - Ḥamā – view over the Orontes past the Nūrī mosque; the line of pine trees marks the citadel.



Fig. 4.22 – Shayzar - a view over the Orontes up to the castle.



Fig. 4.23 – Shayzar – the upper citadel, building complex CA1.



Fig. 4.24 – Museum of London *albarello* excavated in Fenchurch Street.⁷⁰³



Fig. 4.25 – Īlkhānid lotus bowl in the V&A collection, inv no C.1955-1910, dated between 1260-1285. Diameter 21.6cm; height 9.9cm. An identical, almost complete, example was excavated in a thirteenth century context in Ryazan, present day Russia to the south-east of Moscow, measuring: diameter 19.5cm; height 7.5cm.⁷⁰⁴ Image from V&A website.



Fig. 4.26 – Thirteenth century Longquan celadon bowl made in Zhejiang province and exported to the Philippines. V&A collection, inv no FE 47-1975. Diameter 12.1cm; height 5.6m. Formerly in the collection of Sir John Addis. Image from V&A website.



Fig. 4.27 – Fourteenth century Īlkhānid imitation celadon bowl in the Tehran Islamic Museum, inv no 3564, found in Khurasan. No dimensions available. Note how the vertical lines in the cavetto are carved into the body, as are those on the exterior of figure 4.26. It is impossible to tell whether the two fish in the tondo are slip-trailed, applied or moulded.

⁷⁰³ FER 8=97 [1111] – see Pearce and Martin (2004), 100, fig 1.

⁷⁰⁴ Koval (1998), 177-78, figs 1 and 2.

5. DIAGNOSTIC SHAPES AND MATERIALS: ĪKHĀNĪD, GOLDEN HORDE AND MAMLŪK

5.1. INTRODUCTION

The ceramics under discussion have been described briefly in the introduction and are generally referred to as ‘fritware’ or ‘stonepaste’ vessels - in the literature you find other names for this body, such as: quartz-frit, faïence, artificial paste, and *kāshī* (which the Russians translate as ‘semi-faïence’⁷⁰⁵ and alternatively call *cachin*⁷⁰⁶). French colleagues have a simpler and more precise terminology in describing ceramics and simply refer to the bodies as ‘argileuse’ for earthenware ones and ‘silicieuse’ for these ‘siliceous-paste’ ones. The body is made up predominantly of ground quartz – usually ground pebbles sourced from riverbeds, or in some cases fine sand – a small proportion of whitish clay, and a similar one of ground frit, or silica calcined with a vegetal flux, which produces a glass which is then pulverised. This powder was also used for the transparent alkaline glazes. It was this glaze that held the whole friable mass together, without it the vessel would never have survived the manufacturing process.⁷⁰⁷ The resulting paste was not as plastic as ordinary clay, and to deal with the challenge of throwing these pots, it is thought that potters may have used clay or stucco moulds to form the shapes and finished them off on the wheel, adding any feet, spouts, and knobs at this stage. No workshop evidence for such a process has been excavated in a fourteenth century context in Iran, Egypt or Syria, but earthenware moulds for the twelfth and thirteenth century wares exist in many collections,⁷⁰⁸ and Stephennie Mulder made an indepth study on moulds from a potter’s workshop excavated at Bālis

⁷⁰⁵ Koval (2006), 161.

⁷⁰⁶ *Ibid.*

⁷⁰⁷ Fedorov-Davydov (1984), 64.

⁷⁰⁸ See Watson (2004), 134 ff.

Meskeneh for twelfth-to-thirteenth century Syrian moulded, unglazed earthenwares.⁷⁰⁹ At Takht-i Sulaymān stucco moulds for both tiles⁷¹⁰ and a lion figurine were found;⁷¹¹ and on the Volga sites stucco moulds are attested for fashioning the vessels as well as architectural elements⁷¹² - see Figure 5.3 for an example. They are used today at the Maybod pottery near Yazd (Fig. 5.2), where I was told they were in use for around three months before being discarded.

In many instances, without thin sectioning and some form of scientific analysis, it is difficult to establish whether a body is a true siliceous-paste one, or made with calcareous clay. At Gritille, a small twelfth-to-thirteenth century fortified site near Samsat, in eastern Turkey, a total of 37 out of 168 glazed samples investigated by instrumental neutron activation analysis had been identified by eye erroneously as having a siliceous-paste body, and in fact all thirty-seven had a calcareous clay one.⁷¹³ Given this experience, I have discovered that with a critical eye and the experience of handling vast quantities of these wares it is possible to distinguish non-siliceous-paste examples and confirmation can be gained with the help of a conventional microscope and thin sectioning, or in the field by making a clean break with pliers. Of course this would not be possible on museum pieces, but most museums have boxes of fragments for such study purposes.

5.2. MEDIEVAL UNDERSTANDING OF THE TECHNOLOGY

The master of twentieth century Islamic ceramics studies, Arthur Lane, looked to Egypt as the source for this technology:

“...the Ancient Egyptian alkaline glaze and the artificially composed body-material associated with it were rediscovered and improved in the twelfth

⁷⁰⁹ Mulder (2001).

⁷¹⁰ Naumann (1963), 303.

⁷¹¹ Naumann (1977), 106, fig. 88.

⁷¹² Fedorov-Davydov (1984), 144.

⁷¹³ Blackman and Redford (1994), 31.

century, and thereafter became the standard medium of fine pottery throughout the Near East.”⁷¹⁴

Archaeological finds⁷¹⁵ alongside discoveries of earlier texts⁷¹⁶ than Abū 'l Qāsim's treatise written in 700/1300-01,⁷¹⁷ have demonstrated that this technique was widely known in Egypt, Syria, Iran and Central Asia before the twelfth century. Allan's analysis of al-Birūnī's (born Khwārazm 5 September 973, died Ghazna 13 December 1048) treatise on precious stones and metals, and specifically the chapter entitled *dhikr al-qīṣā al-ṣīnīyyat* ('On Chinese Bowls'),⁷¹⁸ clearly demonstrates that the potters were already making and fully understood the characteristics of siliceous-pastes by the mid-eleventh century. This is supported archaeologically by the Italian team's findings in the *masjid-i jum'a* or Friday Mosque in Isfahan.⁷¹⁹ How these potters reported on their methodologies to the scholars who recorded them in scientific treatises is not known. It also shows that despite the fact the technology was understood, the products were still referred to as 'china' or '*khazaf ṣīnī*' (Chinese glazed pottery).⁷²⁰ Most of these treatises concentrate on the sources for precious stones, identification of minerals used and some of their chemical reactions, so perhaps they were more closely related to trade, alchemy and the arts of the fire than to be used as manuals for the humble potter.⁷²¹

We do know that Abū 'l Qāsim Kāshānī, an Īlkhānid bureaucrat in Rashīd al-Dīn's chancery office, was a member of a renowned Kāshānī family of potters, so he was well placed to fully comprehend the techniques involved. As Allan explains in his

⁷¹⁴ Lane (1947), 9.

⁷¹⁵ The so-called 'Tell Minis' wares as defined by Porter and Watson (1987), are widely found in 11th/12th century contexts in Syria – viz, 'Achārneh, Hama, Aleppo, Damascus, Raqqa. See Wade Haddon (2012).

⁷¹⁶ Allan, Llewellyn and Schweizer (1973), 165-173.

⁷¹⁷ Allan (1973), 111-20.

⁷¹⁸ Allan, Llewellyn and Schweizer (1973), 171 and al-Birūnī (1936), 171-2.

⁷¹⁹ Rugiadi (2010), 181.

⁷²⁰ *Ibid.*, 227.

⁷²¹ Yves Porter has written extensively on these written sources (1999), 56; idem (2004a), 165-189; and idem (2004b), 341-360.

article, the “treatise on the manufacture of tiles and other ceramic objects is part of a larger work by the same author.”⁷²²

5.2.1. The Meaning of the Word ‘*ṣīnī*’

In historical documents it is very difficult to know if *ṣīnī* truly refers to ceramics from China, or it is a word that has been coined to denote fine pottery. John Carswell in his entry for the *Encyclopaedia of Islam*, states that it is: “a generic term for Chinese ceramics including porcelain.”⁷²³ In other words, for all imported Chinese ceramic vessels, whether fine stonewares or true porcelain. He also cites Naṣīr al-Dīn al-Ṭūsī (after 656/1258) using the word *ṣīnī* for cups, mugs, plates and dishes, and Ibn Baṭṭūṭa (d 779/1377) remarking on the technique and manufacture of these wares in China from his visit *circa* 749/1348. Interestingly Ibn Baṭṭūṭa uses the words *al-fakhār al-ṣīnī*,⁷²⁴ which these days would generally translate as ‘Chinese earthenware’, whereas ‘*khazaf ṣīnī*’, as already mentioned above is generally accepted as the term for more refined ‘glazed pottery’.⁷²⁵ However, language usage changes and what was understood in the fourteenth century may not apply to today’s usage.

A contemporary dictionary reference for the Yemeni citation of *ṣīnī* indicates that *al-Ṣīnu* was a kingdom in the east from where Chinese vessels (*min hā al-’awānī al-ṣīnīyyah*) were obtained.⁷²⁶ The recognized value of *ṣīnī* wares is highlighted by a comment made by Ibn Baṭṭūṭa during a visit to Damascus. When listing the wealth of endowments in the city, he relates the much quoted case of a broken dish:

“One day as I went along a lane in Damascus I saw a small slave who had dropped a Chinese porcelain dish, which was broken to bits. A number of people had collected round him and one of them said to him, “Gather up the pieces and take them to the custodian of the endowments for utensils.” He did so, and the

⁷²² Allan (1973): 111.

⁷²³ Carswell (1997): 647-8, pl. vi-ix.

⁷²⁴ Ibn Baṭṭūṭa (nd), 104 and 627.

⁷²⁵ Wehr (1976), 699 – ‘fired clay, pottery, earthenware’ for *al-fakhār al-ṣīnī*; and 237 – ‘pottery, earthenware; porcelain, china, ceramics’ for *al-khazaf al ṣīnī*.

⁷²⁶ Firūzabādī IV (1913), 242.

*man went with him to the custodian, where the slave showed the broken pieces and received a sum sufficient to buy a similar dish.”*⁷²⁷

The original Arabic in this instance reads *al-fakhār al-ṣīnī*,⁷²⁸ as when he described Chinese pottery in China, see above. The fact the slave was able to purchase a replacement demonstrates a ready availability of these fine wares at this time. In a modern context we do not distinguish between stonewares and porcelain conversationally, only when necessity requires such a distinction, and generally ‘china’ is an acceptable generic for all high-fired glazed wares. The fact contemporary authors paid little regard to the pottery industry would imply that such utilitarian objects commanded little regard or interest, and we cannot definitively conclude that *ṣīnī* is synonymous with Chinese porcelain. Carswell also cites al-Tha‘ālibī (d 429/1038) as reporting: “The Arabs used to call any delicately or curiously-made vessel and such like, whatever its real origin, ‘Chinese’ (*ṣīnī*), because finely-made things are a speciality of China...”,⁷²⁹ which contradicts his decisive initial definition, and thus raises an element of doubt about the precise use of the word.

5.2.2. The Meaning of the Word ‘*al-Qāshānī*’

Other records do not appear to be very helpful in this regard either. In the Egyptian documents, cited by Milwright, the word ‘*al-qāshānī*’ is translated as ‘Persian wares’.⁷³⁰ Ibn‘Abd al-Zāhir (d 692/1292) detailing the total annual expenditure by the royal household of Baybars (r 658-676/1260-1277) as being 500,000 dinars states that:

*“...the cost of glazed pottery bowls (al-zabādiyy al-ghadār al-khazaf) not counting copper vessels (al-nuḥās), porcelain (al-ṣīnī), and Persian wares (al-qāshānī) amounted to 1,500 dinars every year.”*⁷³¹

⁷²⁷ Ibn Baṭṭūṭa (1929), 70.

⁷²⁸ *Ibid.*

⁷²⁹ Carswell (1997), 647, col. 2.

⁷³⁰ Milwright (1999), 509.

⁷³¹ *Ibid.*, citing Ibn ‘Abd al-Zāhir’s *al-Rawḍ al-zahir fī sirat al-malik al-zāhir*, ed ‘Abd al-‘Azīz al-Khuwayṭar, Riyadh, 1396/1976, 82.

In the published text, ‘*al-khazaf*’ reads ‘*al-ḥaraf*’, but Milwright has assumed that the relevant dots have been omitted and suggests ‘*al-khazaf*’, meaning “glazed ceramics,” as the correct version. It is not clear why he translates the word ‘*al-qāshānī*’ as ‘Persian wares’, it does not appear in later dictionaries such as Lane,⁷³² and the *Encyclopaedia of Islam* refers to *kāshī*⁷³³ under the town of Kashan, for ‘glazed ceramics’. Nor does it appear in the fourteenth century dictionary cited above.⁷³⁴ Ibn Baṭṭūṭa used the term specifically for ‘tile mosaic’ when describing the tile work on ‘Alī Shāh’s ‘cathedral mosque’ in Tabriz, and equates it with the ‘*zaliḥ*’ of his native Morocco.⁷³⁵ Adle wrote the entry for *kāshī* and explains that while it means glazed tiles, for Abū’l Qāsim “it had a wider sense and designated the art of faïence.”⁷³⁶ He goes on to say: “In the Arab authors this term becomes *qāshī* or *qāshānī*,” citing Yāqūt and Ibn Baṭṭūṭa.⁷³⁷ Therefore he sees it as a generic for these siliceous-paste bodies and not specifically ‘Persian wares’. Certainly Redhouse in his translation of al-Khazrajī’s (d 1409) chronicle cited below uses this translation, which on the basis of Adle’s entry is incorrect. The word *qāshānī* therefore should be seen as a generic one for all siliceous-paste wares, rather as *al-ṣīnī* is for imported high-fired wares. Milwright establishes the paucity of the Arabic sources, and cites a later Yemeni one, in which *qāshānī* is mentioned again.⁷³⁸ Al-Khazrajī describes the preparations made by the Rasūlid sultan, al-Ashraf Ismā‘īl, for his sons’ circumcision ceremony in 794/1392 and details the necessary procurements of foodstuffs, spices, and flowers in which he lists:

⁷³² Lane (1863-93).

⁷³³ Calmard (1978), 695.

⁷³⁴ Firūzabādī (1913).

⁷³⁵ Ibn Baṭṭūṭa (1962), vol 2, 345.

⁷³⁶ Adle (1978), 701.

⁷³⁷ *Ibid.*

⁷³⁸ Al-Khazrajī (1906-18), vol 2, 207; vol 5, 233.

“...of vessels of China porcelain (al-*shīnī*), of jade (al-*yashm*), of Persian ware (al-*qāshānī*), or of earthenware (al-*fakhār*) such as dishes, plates, jars, white jugs, large water-jars, leather water-skins, and ewers;..”⁷³⁹

To illustrate the availability of these Chinese imports, a little later he says:

“And when the month of *Shewwāl* was ended, he sent for the confectioners, and they prepared a large quantity of sweetmeats. And he caused to be given out to them five hundred dishes of China porcelain that had never been used at all, besides what had already been used before this occasion; also a great quantity of *Zebīd* earthenware (al-*fakhār al-zabīdī*),⁷⁴⁰ special for moulded cakes only; also, of other sorts, such as filigree-patterned, gourd-shaped, Cairo-made, *Sheyzer*-made, poppy-shaped, of sugar-candy, of melons, bird-shaped, and all diversities of this kind.”⁷⁴¹

On the strength of Adle’s entry, I propose that the translation for *qāshānī* in all these texts should be amended to ‘siliceous-paste wares’. As already discussed, the potters had all been conversant with the technology for several centuries and it was as much a generic word as ‘china’ was.

5.2.3. The Meaning of the Word ‘*al-Yashm*’

Al-Khazrajī lists vessels of *al-yashm* in the items required for the Rasūlid sultan, al-Ashraf Ismā‘īl, sons’ circumcision ceremony feast quoted above. This I took at face value until the thirteenth century work on lapidary stones by Aḥmad ibn Yūsuf al-Tīfāshī (1184-1253) was brought to my attention.⁷⁴² In his chapter 25 he describes *al-yashm*:

“He stated that two kinds of nephrite were commonly used by people: a yellow variety and another white one, the latter being “man-made.” This white one, probably porcelain, was supposedly manufactured in China and exported all over the world. It was used mostly for bowls of all sizes and shapes, as well as for other utensils.”⁷⁴³

⁷³⁹ *Ibid.*, vol 2: 207.

⁷⁴⁰ Zabīd’s pottery industry continues to this day producing low-fired lead-glazed earthenwares used for cooking.

⁷⁴¹ *Ibid.*, vol 2: 208.

⁷⁴² With thanks to Bruce Wannell at an “Idea of Iran” day conference held at SOAS, 4 February 2012 for bringing this to my attention - al-Tīfāshī (1977, 291-92; 1998, 240-41).

⁷⁴³ al-Tīfāshī (1998), 240.

He tells the *amīr* (unspecified) that he had seen many examples of this man-made variety in the Cairo markets and to prove his point to the doubting *amīr* he makes several examples of specific shapes. This raises the possibility that *al-yashm* has a double meaning and could refer to siliceous-pastes too, especially in the context of lists of various kinds of ceramic vessels for banquets. If al-Tīfāshī had the knowledge to make these wares it is highly likely that he consulted with the potters of Fustāt, or even ordered them to make the required examples to prove his point to the *amīr*.

5.2.4. Persian Sources

The available fourteenth century Persian sources are even slimmer than the Arabic ones. Persian *waqf* documents indicate that pottery vessels had to be provided for guests and students in religious institutions.⁷⁴⁴ The medieval geographers seldom mention anything as lowly as ceramic production. The fourteenth century Persian historian and geographer Mustawfī occasionally refers to metalwork and wooden bowl manufacturers, but not potters.⁷⁴⁵ Near Tabrīz he cites a village called Kūzah-Kunān, where one would expect to find a pottery industry for unglazed earthenwares, a *kūzah* being a water jar, but he only catalogues agricultural production.⁷⁴⁶ A century earlier Yāqūt does refer to Kashan tiles and beautiful green bowls of *qāshī*-ware which were produced for export.⁷⁴⁷ These could have been imitation celadons, although at this period Chinese celadons were a dirty, olive green. Colours are difficult to define without the aid of a gauge such as a Munsell chart, and even this is open to individual interpretation, differing light and the operator's ability to see colour. Different commentators may perceive and describe a colour in a variety of ways, and colour-blindness is not uncommon, so colour descriptions must be read with caution.

⁷⁴⁴ Blair (1984), 83.

⁷⁴⁵ Mustawfī (1919).

⁷⁴⁶ *Ibid.*, 80.

⁷⁴⁷ Le Strange (1965), 209.

When describing the firing method for these wares and detailing the chemical components for colour and glazes Abū 'l Qāsim Kāshānī touches upon the topic of wood for firing the kilns.⁷⁴⁸ Here he relates that “In Kāshān they burn soft wood [like hyssop and walnut], and in Baghdād, Tabrīz and other places the wood [of the willow] is stripped of its bark so that it does no smoke.”⁷⁴⁹ Thus indicating that there were other production centres for these siliceous-paste wares, but unfortunately they remain unidentified for the fourteenth century.

5.2.4. Rashīd al-Dīn’s Letters and Chinese Blue and White

There is one further point to discuss in this use of ‘china’ when describing fine ceramics. In a letter to Rashīd al-Dīn from a certain administrator of Kirmān named Alā’-od-din, there is a puzzling mention of *ṣiniyeh* of the ‘*lājvardi* type’ being delivered to Basra.⁷⁵⁰ Lane and others had assumed that because the goods listed evidently came from East Asia that the donor must be Alā al-Dīn Muḥammad Shāh, sultan of Delhi (1295-1315) and wondered why he was sending Rashīd al-Dīn *lajvardīna* vessels.⁷⁵¹ Morton dismissed the letters as a fifteenth century forgery,⁷⁵² a theory constructively argued against by Soudavar, who adds another dimension to the terminology. Soudavar translates ‘*lājvardi* type’ as ‘blue and white’ porcelain, which makes much more sense. My understanding is that Abū 'l Qāsim uses the term *lajvard* for the colour blue when he is describing the processes of lustre decoration and enamelling.⁷⁵³ I suspect it was yet another term coined by the dealers to describe these Persian cobalt blue enamelled products in the late nineteenth century, and certainly would not have been understood in the fourteenth century as a description for these vessels, which would have simply been

⁷⁴⁸ Allan (1973), 114.

⁷⁴⁹ *Ibid.*, 114.

⁷⁵⁰ Soudavar (2003), 97.

⁷⁵¹ Lane (1957), 7.

⁷⁵² Morton (1999).

⁷⁵³ Allan (1973), 115.

listed as ‘blue jars’ or ‘blue bowls’. Soudavar dates the letter to 1315, yet the received wisdom for dating the earliest official Yuan blue and white is 1328 from the Zhushan kilns in Jingdezhen.⁷⁵⁴ Soudavar presents a plausible theory that as Kirmān was a source of cobalt for Chinese blue and white, this would have given Alā’-od-din unique access to the traders involved in this production, and perhaps the vessels represented earlier experiments before it became an official ware, and at that time only exported to India and Iran.⁷⁵⁵ There was certainly a sizeable Persian merchant community in Hangzhou during the first half of the fourteenth century, as evidenced by the tombstones in the so-called Phoenix Mosque.⁷⁵⁶ Liu sums up some of the Zhushan finds as being to Persian taste with turquoise glaze and gilding, as well as the blue and white.⁷⁵⁷ Included on the list of 500 *ṣiniyeh* is a gilded flask and seven-colour wares (*haft rang* – the words coined to describe *mīnā’ī* wares).⁷⁵⁸ This earlier dating for blue and white production certainly lends credence for the Sulṭāniyya white slipped products illustrated in the Catalogue, numbers 1.14.1 and 1.14.2, being produced earlier, and for both Sarfarāz and Mirfatāḥ maintaining that these blue and white wares are Īlkhānid. Yuka Kadoi adds weight to this earlier dating of blue and white by citing finds in a dated tomb of 1319, and some in a late thirteenth century context in Inner Mongolia.⁷⁵⁹

5.3. INSCRIPTIONS ON CERAMIC VESSELS AND TILES

Inscriptions are certainly a useful indicator for distinguishing a possible provenance, but they are not infallible. The most common form of inscriptions on vessels in all three cultures are benedictory sayings in Arabic, such as “prosperity” and “long life to the owner”, as in Catalogue numbers 1.8.4 and 1.8.5 - imitation celadon bowls excavated at

⁷⁵⁴ Soudavar (2003), 98, citing Valenstein (1994), 71-74; supported by Liu (1993), 37.

⁷⁵⁵ Soudavar (2003), 98.

⁷⁵⁶ Conversation on 19.7.2012 with George Lane who has worked on these with the late Sandy Morton, and will be giving a lecture on this topic to the Islamic Art Circle at SOAS on 14.11.2012.

⁷⁵⁷ Liu (1993), 37.

⁷⁵⁸ My thanks to Javad Golmohammadi for helping me unravel the complexities of these lists.

⁷⁵⁹ Kadoi (2009), 68.

Takht-i Sulaymān.⁷⁶⁰ Their Īlkhānid provenance is confirmed by the diagnostic T-rim shape of number 1.8.5, see section 5.6.1 below. There are seven vessels in the Īlkhānid section of the Catalogue with Persian inscriptions. Some are pithy sayings such as that on number 1.6.8, which reads:

“As long as the soup is good, do not worry if the bowl is pretty.”

or number 1.10.1:

*“The heavens and earth are in turmoil – how lucky are those who drink and forget.”*⁷⁶¹

and number 1.10.2:

*“Tumultuous air and boiling earth; joyous is he whose heart is happy. Drink!”*⁷⁶²

The remainder are poetic quatrains or parts thereof. For example, Catalogue number 1.42.4 is a verse from Sanā’i (d *circa* 1130),⁷⁶³ who was much quoted by later Šūfī poets, but thought not to have been a practising one himself.⁷⁶⁴ A verse on Catalogue number 1.5.1.1⁷⁶⁵ is in the style of poet and Šūfī mystic, Jalāl al-Dīn Moḥammad Rūmī (1207-1273). Catalogue number 1.9.1 has a quatrain from Šūfī poet Afdal al-Dīn Kāshānī (d *circa* 610/1213-14).⁷⁶⁶ The inscription on Catalogue number 1.11.6,⁷⁶⁷ written in a cursive hand, combines talismanic sentiments with poetry - four quatrains, and a benedictory couplet from the *Shahnamah*.

Most of these inscriptions on vessels are related to eating and drinking, and as O' Kane states, this is an important aspect of Persian culture.⁷⁶⁸ He also remarks that

⁷⁶⁰ See vol 2, page 97 for illustrations.

⁷⁶¹ <http://www.asia.si.edu/collections/singleObject.cfm?ObjectNumber=F1908.198>, accessed 20.7.2011.

⁷⁶² <http://www.metmuseum.org/Collections/search-the-collections/140008661?rpp=20&pg=1&ft=56.185.3&pos=1>, accessed 28.5.2012.

⁷⁶³ See vol 2, page 16 for the verse.

⁷⁶⁴ de Bruijn (2012).

⁷⁶⁵ See vol 2, page 19 for the verse.

⁷⁶⁶ See vol 2, page 29 for the verse.

⁷⁶⁷ See vol 2, page 33 for the verse.

⁷⁶⁸ O' Kane (2009), 44.

because ceramic vessels were more utilitarian they were probably made for the indigenous non-Arabic speaking market and that the use of Šūfī poetry reflected its popularity in the fourteenth century.⁷⁶⁹ This fact is even more pertinent to religious structures where inscribed tiles are ubiquitous. Although I should add that there are no such tiles in the wares under discussion, only Quranic ones on a series of dated underglaze-painted moulded *mihrab* tiles.⁷⁷⁰ In a secular context, however, at Takht-i Sulaymān *lajvardīna* was a popular medium for tiles, but they did not carry inscriptions like their lustre counterparts.

While inscriptions on Mamlūk vessels only carry Arabic inscriptions, the popularity of Šūfī practices in Syria/Egypt can also be found in two mystical ones on Catalogue numbers 3.1.1⁷⁷¹ and 3.3.6.⁷⁷² In the Golden Horde lands Persian is found on both tiles and vessels. Arabic benedictory phrases such as ‘glory and prosperity’ are also the norm. There are two examples of Persian inscriptions in type 2.7, the polychrome enamelled wares. One is on the exterior of a bowl, Catalogue number 2.7.3b, which reads in English:

“*In the year seven hundred and sixty-four. He/She sent me from (out of) hand (plain of) ...m, the bowl of...*”⁷⁷³

So dated to the equivalent of 1362-1363. A roundel of polychrome and *lajvardīna* tiles were excavated in a villa at Selitryonnoye (see Catalogue number 2.7.6)⁷⁷⁴ which carry a verse from a *mathnavi* of Sa‘dī (1184-1283) and several other unidentified verses.⁷⁷⁵

These were found in a mid-fourteenth century context. The fact that these Golden Horde

⁷⁶⁹ *Ibid.*, 26.

⁷⁷⁰ See MMA (2011), 123-24, fig 80 - dated 722/1322-23; and a similar example in the MIA Cairo, see O’Kane, ed (2006), 274-75, no 236.

⁷⁷¹ See vol 2, page 136 for an image.

⁷⁷² See vol 2, page 145 for an image, and 54 for text.

⁷⁷³ Read by Manijeh Bayani.

⁷⁷⁴ Fedorov-Davydov (1984), ill 65-68 inclusive; presented together in the Kazan exhibition, Kramarovsky (2005), cat #232.

⁷⁷⁵ Read by Manijeh Bayani 26.12.2011.

examples carry a mixture of Arabic blessings and Persian poetry infer a strong influence from the Persian speaking world. Iakubovskii, who wrote extensively on Golden Horde culture and worked for many years in Kunya Ürgench and at other Khwārazm sites, viewed the ‘Golden Horde culture’ as “nothing other than the culture of Khorezm [*sic*] imported to the Volga.”⁷⁷⁶ When you consider that the Khwārazmshāhs were the immediate predecessors to the Īlkhānids in Greater Iran and were pushed westwards and northwards in the wake of the Mongol invasions it is plausible that their potters introduced the practice of making these siliceous-paste wares to the Volga basin and other production centres as yet unidentified, establishing distinctive yet comparable decorative styles.

5.4. SCIENTIFIC ANALYSES

With the advent of petrographic studies through neutron activation analysis and scanning electron microscopy, it was believed to be possible to identify wares from specific kilns by identifying the common components used to make up the body paste, and comparing them with wasters in museum collections, whose provenance was tentative at best,⁷⁷⁷ or from excavation finds. These methods work well for earthenware bodies, but siliceous-paste ones have little clay in their makeup, and the power of petrography has proved to be a disappointment. Even its chief exponent admits it does not produce the results hoped for.⁷⁷⁸ Another problem is the lack of kiln evidence to give concrete markers from specific workshops. The only area where it might be possible to carry out such a study is in the Volga basin, especially at Selitryonnoye (the first Golden Horde capital city) where seven different sorts of kilns have been

⁷⁷⁶ Tolstov (2005), 297.

⁷⁷⁷ Jenkins (1984), 104, pl 9c and d – New York Museum inv no 11.61.1 – 3 bowls stuck together “found in an old cemetery on the outskirts of Damascus.” See the Illustrated Catalogue #3.6.1.

⁷⁷⁸ Email correspondence with Rob Mason in September 2009.

identified,⁷⁷⁹ a total of thirty were excavated.⁷⁸⁰ There is apparently even more material to study now following recent work at Selitryonnoye.⁷⁸¹ At Saraichik, West Kazakhstan, on the Ural River, despite evidence of kiln slag they have failed to identify any kilns which produced siliceous-paste wares.⁷⁸²

Mason claimed that it was possible to establish the provenance of fragments due to the uniformity of petrofabrics.⁷⁸³ This was challenged by Blackman and Redford on the basis of their results from neutron activation analyses on their finds at Gritille; they criticised him for his “sweeping conclusions about Islamic ceramic production” based on minimal sampling.⁷⁸⁴ The same criticism was made by Chris Doherty, the geologist at Oxford's Research Laboratory for Archaeology and History of Art (RLAHA) where Mason made many of his analyses for his doctoral thesis.⁷⁸⁵ Doherty was able to explain the principals of the process in layman's terms and to indicate that Mason's protocol could have had too many variables, and was probably not as precise as he claimed. Quartz is well-studied in the petrochemical industries of Iran and Iraq where major investments are heavily dependent on accurate analysis, and these studies have demonstrated that quartz has many textural variations. In principal this method could be a useful tool, but many more samples need to be taken and results from all similar projects to be calibrated.⁷⁸⁶ A reasoned criticism of some of the ROM team's

⁷⁷⁹ Fedorov-Davydov (1984), 146.

⁷⁸⁰ *Ibid.*, 147.

⁷⁸¹ Paper given by Sergei Borochoy at Silves, October 2012.

⁷⁸² Email correspondence with Olga Kuznetsova 2009.

⁷⁸³ Mason and Keall (1990), 166.

⁷⁸⁴ Redford and Blackman (1997), 236.

⁷⁸⁵ This was carried out in February 2004, and I am most grateful to Dr Doherty for his patience and clarity.

⁷⁸⁶ For example the Smithsonian/LACMA collaborative project reported on in Technical Studies 2, Hirx, Leona and Meyers (2002), 233-241.

conclusions that the so-called “Indian Ocean” fabric is a product of Diyār Bakr is included as Appendix B.⁷⁸⁷

Blackman and Redford are of the school that argues for decentralised production and multiple provincial manufacturing sites, accounting for the diversity of quality to be found on small sites such as Gritille, and its regional centre, Samsat, both sites that controlled crossing points on the Euphrates in the northern Jazīra.⁷⁸⁸ They even suggest that lustre could have been made at these sites, drawing on evidence from Spain where production has been shown to have taken place in a variety of different sized kilns.⁷⁸⁹ The Gritille sampling revealed nine main compositional groups which were in production over at least 150 years. However, they concluded that some of the differences may represent switching sources of raw materials, so it is difficult to reach concrete conclusions in the style of Mason.⁷⁹⁰ Caution and common sense must therefore be taken at all times when quantifying this scientific information. There is also a need to calibrate the studies made to date and bring them altogether.

As already mentioned in Chapter 1, section 1.7, I had collected three fragments from Marāgheh; Isfarā’īn; and Sulṭāniyya. Nick Talbot Rice kindly supplied another Sulṭāniyya fragment from his father’s collection, which came from a group associated with the published bowl he had brought back from his 1931 visit to the site with Reitlinger.⁷⁹¹ Doherty studied these pieces under a conventional X10 magnification microscope, but was unable to employ a Scanning Electron Microscope (SEM) as the RLAHA’s was out of service. He concluded that the two Sulṭāniyya pieces were definitely made with a calcareous clay body with natural fine components including shell, quartz and oversize pieces of crystalline limestone which account for the large

⁷⁸⁷ Mason (1996), 18; Golombek, Mason and Bailey (1996), 115.

⁷⁸⁸ Redford and Blackman (1997), 236.

⁷⁸⁹ Rhodes (1981), 60-61, fig 56.

⁷⁹⁰ Redford and Blackman (1997), 245.

⁷⁹¹ Talbot Rice (1932).

white grits seen by eye. The iron-rich mica grained paste which gives type 1.14 vessels the red body are absent in type 1.15 vessels, which accounts for their creamy-white paste which can be confused with siliceous-paste ones. The clay on the latter is also better levigated and an abundance of organics in the paste causes shrinkage cracks and pitting in the glaze and airholes in section, which establishes another diagnostic for these wares.

5.5. DIAGNOSTIC SHAPES

Given the lack of secure identification by scientific analyses, for the time being a potentially more reliable approach is to establish diagnostic differences in shape and decorative designs. Technophiles may see this as rather a retrograde step in the twenty-first century, but given the paucity of information coming into the public domain from excavations in the region under discussion, I see it as an excellent alternative. A simple means of ‘finger printing’ the composition of these siliceous-paste bodies still awaits us.

The Catalogue in Volume 2 of this study represents the variety of wares produced in the three cultural areas and illustrates the different styles of decoration, comparing and contrasting them, indicating any similarities. The aim is to illustrate all these with archaeologically-sourced material and only use dealer-derived, complete pieces when it is necessary to demonstrate overall shapes and designs. I have excluded lustre wares, considering them to have been exhaustively studied by Watson,⁷⁹² but where relevant their shapes and shared designs have been included to illustrate specific points. This study is limited to the locally-produced so-called ‘finewares’ with friable siliceous-paste bodies and glazed with transparent alkaline glazes, yet their decoration reflects a shared ‘international style’⁷⁹³ which has led to so much confusion as to what

⁷⁹² Watson (1985).

⁷⁹³ Grube (1996) coined this term when exploring the flying bird motif to be found from Yuan China through to Iran.

was made where. In some instances provincial earthenware copies using the same shapes and decorative motifs have been included. Such a morphological approach was suggested for the eastern Mediterranean by Byzantinist Janet Buerger.⁷⁹⁴ Tonghini at Qala‘at Ja‘bar⁷⁹⁵ used shape, decorative design, and body to distinguish between the different periods, in addition to petrographic analyses,⁷⁹⁶ but did not identify any Īlkhānid or Golden Horde imports in her Fritware 3, which represents the Mamlūk levels.

An understanding of some different shapes is apparent, but to my knowledge no one has actually produced a study exploring all these differences, and little has been written about the Golden Horde products outside of the former Soviet Union states. It has long been acknowledged that the inspiration for these fine wares was China, and some shapes, such as the hemispherical or ‘lotus’ bowl, faithfully copied its prototype, and in many cases, for example celadon, every aspect was imitated, yet the potters could not resist adopting this decorative style for their own shapes too, for example, T-rim bowls in Iran.⁷⁹⁷ Vessels that were produced for local usage, such as medicine jars or *albarelli* took on distinctive regional differences. In the Golden Horde territories there was the so-called ‘rosewater bowl’ or *gyulabdan* which is unknown elsewhere. Cataloguing the decorative motifs on these different vessels it is possible to build up a profile of regional diagnostic decoration too. Around twenty-three workshop signatures are evident on some Mamlūk products,⁷⁹⁸ but it is impossible to establish whether these were for individuals or just an identifying mark.⁷⁹⁹ None were apparent on Īlkhānid or

⁷⁹⁴ Buerger (1984), 203-222.

⁷⁹⁵ Tonghini (1998), 51.

⁷⁹⁶ Franchi et al (1995).

⁷⁹⁷ See example no 1.8.5 in the Catalogue, vol 2, the Takht-i Sulaymān Berlin Museum collection, 97.

⁷⁹⁸ Abel (1930).

⁷⁹⁹ Lane (1957), 19.

Golden Horde vessels, other than signatures on some lustre tiles and *mihrabs*⁸⁰⁰ and Arabic letters to indicate a precise placement position within the architectural framework on some Golden Horde tiles (Fig. 5.4).⁸⁰¹

Following the shapes drawn in Figure 5.1 (page 224), each one will be discussed in turn. Drawing on the differences in decorative styles, diagnostic characteristics will be listed, in order to demonstrate that shape and subsequently decoration can be important in isolating regional and functional differences. For comparative purposes Table 5.1 (page 229) shows the distribution by shape of the decorative motifs encountered. By selecting individual design components on these vessels it is possible to establish a profile of typical decorative motifs, which is included in Volume 2, as an appendix to the Catalogue, supplementing the list of objects and drawing on other media to suggest where the inspiration for specific designs may have come from.

5. 6. COMPARISONS OF DECORATIVE DESIGNS ON ISOLATED SHAPES

5.6.1. T-rim Bowls – Īlkhānid

The T-rim (or ‘hammer-head’⁸⁰²) is an exclusively Īlkhānid shape in use from the early thirteenth century through to at least the mid-fourteenth century,⁸⁰³ but no longer in production by the fifteenth century.⁸⁰⁴ The only examples identified to date in a Mamlūk context are the Kashan lustre fragments excavated by the Danish team at Ḥamā.⁸⁰⁵ In Iran it is possible that their manufacture was restricted to central, southern and western areas, for none appear in the Khurasani repertoire of types 1.2 and 1.6, and there are no profiles in the Ṭūs report.⁸⁰⁶ However, one (Catalogue no 1.5.3.1) was found in Khurasan, at the fortress of Ayīz, north of Bīrjand, so the shape was known in

⁸⁰⁰ Watson (1985), 176-181.

⁸⁰¹ Fedorov-Davydov (1984), ill 63.

⁸⁰² Williamson (1971/1972a).

⁸⁰³ Lane (1957), 11.

⁸⁰⁴ Golombek et al (1996), none evident in this publication or in museum collections.

⁸⁰⁵ Riis and Poulsen (1957), 125-26, fig 384.

⁸⁰⁶ Ṭoghrāiy (2001).

this area, but it could have been brought in by an administrator or military person from Tabriz when posted to this remote fortified site, perhaps on border control. Not one was evident in the Bīrjand museum collection (display and reserves) or Mashhad storage.

In the south an imitation celadon example was found by Williamson at in Kirmān province⁸⁰⁷ and a provincial panel style almost complete bowl was excavated at Ghubayrā, see Figure 5.12.⁸⁰⁸ I was able to handle, but not photograph, this example in the Tehran Museum's storage. The excavators describe its body as "a white paste",⁸⁰⁹ but I would describe it as being similar to the Sulṭāniyya products, therefore made of calcareous clay and not a true siliceous-paste one. Williamson found many fragments with the same colour combination at Dasht-i Deh – see section 3.12.1. As to be expected there are no T-rims on type 1.10 (monumental moulded jars) examples, and the polychrome white style (type 1.11) would appear to be limited to either straight or slightly incurving rims.

Following the typological list in the Catalogue, starting with type 1.1, the coloured-ground grey wares, I will trace the varieties of decorative designs used. Many of these examples are taken from unexcavated pieces without a secure provenance, but the shapes are attested archaeologically. Image 1a in Appendix A shows a typical Mongol man seated on a folding stool, as illustrated in a manuscript dating to the early fourteenth century (see images 1c and 1f),⁸¹⁰ and shows the painterly quality of this type. The leaves have characteristic rounded shapes, like cotton bolls, in contrast to the much more angular, pointed Mamlūk trefoil leaf, the design was most probably influenced by textiles, and the overcoat of the seated ruler supervising the battle scene

⁸⁰⁷ Williamson (1972a), 177, pl XIIb.

⁸⁰⁸ Bivar (2000), 152, fig 73 for profile and pl 99 for image.

⁸⁰⁹ *Ibid.*, 152.

⁸¹⁰ Hillenbrand (2002), 136, fig 161 – although this is not the same illustration, it is from the same album; and München (2005), 263, fig 290.

in image **1f** could easily have been the inspiration.⁸¹¹ As with Mamlūk ones, these leaves have no obvious stems and appear to ‘float’. Image **1b** is a detail from a large T-rim bowl in the BM collection (diameter 41cm; height 21.4cm; foot diameter 20.2cm; rim 3.5cm wide). It was illustrated in the *Survey of Persian Art*,⁸¹² where it is possible to see a camel amongst foliage on a cobalt blue ground in the tondo, but now it is so badly iridized that it is impossible to see; perhaps it might be if sprayed with a liquid in laboratory conditions. This combination of Types **1.1** and **1.3** decorative motifs is attested archaeologically at Takht-i Sulaymān in Catalogue number **1.3.4a/b**, a body fragment of a T-rim bowl with a typical carination and traces of an inscription in relief on a blue ground on the exterior above slip-relief arcading. Catalogue number **1.3.3a/b** belongs to the same stylistic group, but its lower foot ring indicates it is likely to have been a flatter, more open bowl. Catalogue number **1.3.8a/b** is the only dated example (716/1316). Strictly speaking it does not conform to type **1.3**, but it does have a quatrefoil design (see image **1n** in Appendix A) which occurs repeatedly on type **1.2** vessels (Catalogue numbers **1.2.4**; **1.2.6**; neck of number **1.2.8**), placing this T-rim bowl in between types **1.2** and **1.3**. It also occurs on Golden Horde bowls, see the polychrome-enamelled fragment, number **2.7.2**, from Saraichik and *lajvardīna* tiles, see number **2.7.6**, where some of the turquoise border ones have alternating six-petal flowers with this motif outlined in red.

There are many T-rim bowls and fragments with black under a transparent turquoise glaze (type **1.4**) in both museum and archaeological collections. Catalogue number **1.4.5** in the Victoria and Albert Museum (V&A) is dated: *rabī* ‘ I 676/August

⁸¹¹ Morgan (1995), 33.

⁸¹² Pope and Ackerman (1938-39), pl 761.

1277⁸¹³ and the fragments from the Berlin Museum’s Takht-i Sulaymān collection, are from an early fourteenth century context, indicating that this design endured for at least thirty years and no doubt considerably longer.⁸¹⁴ A lustre bowl in the David Collection dated 667/1268 (see Appendix A image **1e**) has the identical zigzag design in the cavetto panels that are ubiquitous on type **1.4** – see numbers **1.4.2-4**; **1.4.10**; and **1.4.17**. While number **1.4.14**, with its four short-tailed phoenix-headed birds in flight is the only example in the Catalogue with figural decoration on the interior, birds in silhouette on the exterior, as in number **1.4.16**, and swimming fish along the rim of numbers **1.4.8** and **1.4.9** occur frequently.⁸¹⁵ The fish silhouette motif is known in Mamlūk contexts too, for example a base excavated by Sarre at Ba‘ albakk,⁸¹⁶ with a pair of fish encircling the tondo on a stippled ground – the heavier stippling similar to that in number **3.1.4** excavated at Ḥamā without the flowers and cobalt on white bull’s eyes. Swimming fish were also a popular motif on Mamlūk glass and metalwork, and possibly originally copied from Chinese celadons where a pair of swimming fish denoted connubial bliss, abundance and averted the evil eye⁸¹⁷ – these meanings were probably lost in translation, and the motif chosen for its decorative value. They also occurred in Golden Horde rosewater bowls – see number **2.5.1a**.

There are several panel style examples. A fragment from Takht-i Sulaymān (Appendix A, image **1h**) has an almost identical band on the exterior below the rim to that of number **1.5.3.9**, the bowl from Ayīz. Appendix A, image **1i** is a detail from a flat-rimmed bowl (number **1.5.2.1**) classified as type **1.5.2** based on its central interlace

⁸¹³ Morgan (1995), 19, says “Kelekian believed that this was presented in Persian solar years, giving AD 1299, rather than in Islamic lunar years, which would be AD 1278.”

⁸¹⁴ *Ibid.*, 20, believes them to have continued through to the late fourteenth century.

⁸¹⁵ Kelekian (1910), pl 34, for fish on large jar “found at Sultanabad”; Tanman (2001), 28 - for bird on exterior of T-rim bowl – this has a seated man framed by zigzag panels quartering the circular form; Pinder Wilson (1969), fig 177 – fish swimming inside T-rim bowl; Crowe and Mekhitarian (1976) 65, figs 46 & 47 for bird on exterior.

⁸¹⁶ Sarre (1925), pl 24, no 67.

⁸¹⁷ Williams (1976), 185.

design, and illustrates how interconnected these design motifs were for these panel styles, as if the potter had a style book of motifs to choose from. The iridized bowl in the Freer Gallery collection (number 1.5.1.7), although without provenance, demonstrates that other panel styles were also in the potters' repertoire.

There is a series of cobalt and white striped (type 1.7) T-rim bowls in the Berlin Museum's Takht-i Sulaymān collection, believed to be from a post-Abāqā deposit, dating to the early fourteenth century, with several blue and white striped decorated examples with a pseudo-inscription band incised on black just below the rim on the exterior (see number 1.7.5 for an example). This is a high-quality, finely potted ware.

Takht-i Sulaymān provides plenty of evidence for imitation celadon production in Īlkhānid Iran, with examples in both the Tehran Islamic Museum's stores and the Berlin Museum's. Many of the rims have moulded or slip-trailed benedictory inscriptions on their exteriors and the examples in Catalogue number 1.8.5 have elegant T-rims. The potters had proved that despite the inspiration from genuine pieces there was a demand to turn this decorative style into a recognized form that was essential for daily use. The lid, Catalogue numbers 1.8.1a/b, is an example of genuine Chinese celadon, demonstrating that it too was in circulation amongst all the imitation pieces.

At the small fortified site of Ḥasanlū a *lajvardīna* example (number 1.9.6) was excavated, as well as black under turquoise ones (number 1.4.17) The archaeological evidence indicates that *lajvardīna* was not in circulation in Mamlūk Syria or Egypt, with the exception of one tiny fragment from the former Crusader castle at Shawbak or Montreal, in present day Jordan,⁸¹⁸ and two tile fragments purported to be from Fuṣṭāṭ

⁸¹⁸ Email correspondence with Micaela Sinibaldi, December 2008 and subsequent meeting in Amman in October 2011. Unpublished.

in the BM's storage.⁸¹⁹ However, *lajvardīna* fragments and vessels are frequently in Golden Horde settlements, but not with the T-rim form.

The last type of decoration for the T-rim is black under a transparent cobalt glaze (type 1.12). The Takht-i Sulaymān collection in the Berlin Museum has a couple of examples (numbers 1.12.3a/b), though they are possibly from the same bowl. Note that the broken piece on the right has rivet holes indicating that it was mended at some stage and of value to its owner.

5.6.2. Rosewater Bowls – Golden Horde

This is an exclusively Golden Horde shape, although the spout in the Īlkhānid blue and white striped series, number 1.7.7a, is reminiscent of rosewater bowl spouts, but it would never have poured efficiently, as it is not as open on the interior as that in the profile drawing in Figure 5.5.⁸²⁰ No bosses have been found in Iranian contexts and these are the most robust and telling diagnostics for this style.

Only three types of decoration are evident for these vessels: types 2.1; 2.5; and 2.8 – that is coloured-ground relief; black under turquoise; and monochrome moulded. The fact there are no *lajvardīna* ones could either be because vessels with this type of decoration were not manufactured in the Golden Horde, or whatever these vessels were used for, it was inappropriate for them to have certain types of decoration. Without contemporary written accounts it is impossible to know.

In Appendix A, Golden Horde images **2a-b**, **d-f** and **g-h**, note the finely stippled dots in between the designs, whether they be Arabic letters with a repeated *iqbāl* or ‘prosperity’ in relief or other designs. Each dot is executed individually, unlike the rather careless Īlkhānid type 1.2 examples (see Appendix A, image**11**), and is another

⁸¹⁹ 1924,0414.77 and 1924,0414.80 donated by Walter Hildburgh (1876-1956). No further details are given. Photographed on 24.7.2012.

⁸²⁰ After Pugachenkova (1960b), 197.

means of distinguishing between these three groupings of coloured-ground relief wares; although image **2c** is the exception to the rule. Other motifs such as the ‘comma’ or ‘tear drop’ can be found in Īlkhānid type **1.2** as well, but generally the stippled dots on these are less precise, and frequently there are incomplete circles and squiggles that suggest different craftsmen and centres producing these. The uniformity for Golden Horde type **2.1** is impressive – the scrolling foliage with its attenuated leaves (see numbers **2.1.2a** and **2.1.3a**) is found on all forms, some of which become ‘amoeba-like’ blobs if space is limited and they ‘lose’ their stems, see number **2.1.5** and Appendix A, image **2c**. Figure 5.6, excavated at Bolgary, has markedly less relief to its decoration and the glaze is more glassy. Unfortunately from the way it was displayed in the Kazan State Museum it was impossible to see the interior decoration. It is tempting to interpret this piece as a provincial copy. The rosewater bowl was also produced in unglazed earthenware, so this form evidently had some essential purpose – see Figure 5.7 for an example from the Saraichik excavations,⁸²¹ and a green glazed example was excavated at Otrar (Fig. 5.8).⁸²² It is possible that these are the prototypes for this form and when the Selitryonnoye kilns went into production they adapted it. Unfortunately no profiles of these two earthenwares bowls were published to determine whether they have spouts.

The interior decoration for the siliceous-paste bowls is either divided into bands or wedges of various motifs, such as zigzags, foliage, rounded trefoil leaves, and teardrops/commas with a central floral or geometric motif; or, either a central peacock or an aquatic bird amidst foliage. Thick cobalt blue dots, with the consistency of a slip, are painted on the white slip-relief designs. A thinner turquoise is used too, especially for some of the bosses, but to a lesser extent than the cobalt.

⁸²¹ Samashev et al (2008), 173.

⁸²² Nekrasova (1998),

Four examples of decorative type 2.5, Golden Horde black under turquoise, are included in the Catalogue, numbers: 2.5.1; 2.5.10; 2.5.11 (no bosses or spout, but the curve of the shoulder indicates it should be included); and 2.5.12. Other than number 2.5.12, which has an inscription, all have figural scenes on their shoulders, with birds or hares in silhouette; number 2.5.1 has a pair of swimming fish on the interior. Number 2.5.12 is also exceptional in that it has a straight foot and not the usual splayed one, suggesting another production centre or workshop.

The third decorative style is in a monochrome transparent coloured glaze with minimal black banding on the rim. All the examples in the Catalogue are glazed with cobalt exteriors and turquoise interiors. They were excavated in Bilyar, Saraichik, and ‘somewhere in the Volga area’ (number 2.8.1). The exception is a small rim fragment (number 2.8.4) in turquoise from the mixed Tsarevo/Selitryonnoye boxes in the State Museum, Kazan. The slip-relief inscriptions (an *iqbāl* or ‘prosperity’ repeat) are all identical. This style has no parallels in either Mamlūk or Īlkhānid regions. Ten fragments of a bowl in this style were found in mid-late fourteenth century levels at Novgorod and Koval commented that this type is rarely found in medieval Russia, implying its use was restricted to the Golden Horde culture.⁸²³

5.6.3. Large Jars

As illustrated in Figure 5.1 (page 224), there are both Īlkhānid and Mamlūk categories of jars, but they do have distinctive shapes, and while the decoration is similar, there are distinctive differences in their decorative styles which are described below.

5.6.3.1. Bulbous, squat Īlkhānid types

These jars are not as easy to recognise as the previous two shapes, especially in fragmentary condition, so it is frequently necessary to fall back on analogies of

⁸²³ Koval (2006), 175.

decoration on the more distinctive shapes to support argumentation. The Īlkhānid jars do have markedly low splayed ring feet (1-1.5cm) with fuller,⁸²⁴ more rotund bodies, and are shorter than Mamlūk ones, whereas the Mamlūk examples have a straight foot that would appear from the exterior to be completely flat, but when you upend them there is a ring foot, as if it was carved out of the base. Both have a rolled lip in order to attach a cover, be it parchment, paper or cloth,⁸²⁵ and the Mamlūk ones have longer necks.

The decorative styles are limited to type 1.1, coloured-ground relief, which are rare;⁸²⁶ type 1.4, black under turquoise, the most numerous; and panel style, type 1.5.3 (see Catalogue no 1.5. 3.3). Type 1.10, the monumental moulded category, is the exception to the rule and these have the same ‘carved’ foot as the Mamlūk ones, and the examples cited in the Catalogue are appreciably taller at around 50-60cm, whereas the squat types 1.1, 1.4 and 1.5 are between 18-30cm. Parts of two *lajvardīna* jars were excavated at Ḥasanlū (Catalogue no 1.9.5), with a proportionally wider mouth and shorter neck, and no bases. Kelekian defined the type 1.4 jars by his finds from the area of Sultanabad/present day Aragh,⁸²⁷ one of which is now in the LACMA collection, see Catalogue number 1.4.2. In order to purchase the Madina collection several LACMA pieces were auctioned in London including a similar jar.⁸²⁸ This appeared in the sale catalogue as “Syria, 14th century – a Damascus turquoise glazed pottery jar.” When I questioned this attribution I was told that the ‘Syrian’ part came from LACMA, but the ‘Damascus’ was Christie’s, ignoring both Lane’s and Kelekian’s attribution to

⁸²⁴ Stiehler-Alegria (2009), 50 – for further profiles.

⁸²⁵ Louisiana Museum (1987), 95 - Watson’s entry for no 145, *albarello*.

⁸²⁶ Lane (1957), plate 1 – whereabouts unknown – height 31cm; Kelekian (1910), no 47, height 31cm; circumference at widest part 76cm – highly iridized; Mahboubian (1971), no 346, height 22.8cm, allegedly from Sultanabad.

⁸²⁷ Kelekian (1910), pl 33, height 24 cm and 34, height 26cm; pl 33 now at LACMA, published by Lane (1947), pl 92A.

⁸²⁸ Pal, ed (1973), 53, no 89 – not illustrated and catalogued as ‘Sultanabad 1200-1250’; Christie’s (2002), 70, lot 6, height 24.1cm.

Sultanabad.⁸²⁹ Komaroff cited a cockerel-headed ewer in a French catalogue as having exactly the same decoration, as the basis for this attribution,⁸³⁰ yet a similar jar (inv no MAO 650)⁸³¹ in the Louvre is classified as Īlkhānid, as is the same cockerel-headed ewer, inventory number MAO 248.⁸³² The other deciding factor for LACMA was that the jar is heavily potted; but this is a characteristic of all these jars, in order that they should be sufficiently robust to store liquids and other expensive substances safely. This demonstrates the confusion that still reigns due to the lack of published archaeological information. When discussing this type with the Zanjān archaeologists in September 2003, they confirmed without hesitation an Īlkhānid attribution.

5.6.3.2. *Mamlūk types*

The prototype for this style of jar is thought to be metalwares, such as the example in Figure 5.9. Unfortunately the inscriptions do not give any indication as to its purpose. Admittedly this is a little earlier, but as already observed, styles and shapes persisted for considerable periods of time. Like their metal prototypes, jars of this kind were made in at least two parts and then luted together, the join frequently being evident on the inside.⁸³³ Mamlūk jars are found in more styles of decoration: types **3.1**; **3.2**; **3.3**; **3.5**; and **3.8**. Figure 5.10 gives an idea of the variety. Type **3.1** is represented in the Catalogue with number **3.1.1**, with its superb pointed trefoil leaves and high relief; for type **3.2** there are several examples in collections, and the Catalogue includes several excavated fragmentary pieces with the diagnostic leaves.⁸³⁴ Examples of these in other media are illustrated in Appendix A3. Panel style number **3.3.1** in the V&A collection

⁸²⁹ Email from Komaroff 8.3.2004.

⁸³⁰ Louvre (1977), fig 150.

⁸³¹ Similar size: height 26.8cm; mouth diameter 9.8cm; height of foot 1.6cm.

⁸³² See Louvre database.

⁸³³ See image of type **1.12.2b** as an example.

⁸³⁴ Atıl (1981), 174, #83: diameter of rim 12.3cm; height 38.1cm.

has almost a twin in the Damascus National Museum.⁸³⁵ Catalogue number 3.5.5 is a well known example of the shell motif; and Figure 5.11 is an example of type 3.8. It is curious that there are seemingly no fragmentary bases in either museum sherd collections or archaeological ones. As the interiors were undecorated, and usually coated in a colourless glaze (see number 3.2.13b) or a turquoise one (number 3.2.7b), they could well have been misinterpreted and identified as imitation celadons.

5.6.4. *Albarelli* – Īlkhānid and Mamlūk

As a rule Golden Horde *albarelli* are smaller, glazed earthenware vessels with some incised decoration, and conform to the shape illustrated in Figure 5.1. Of course there is the odd exception to this rule though, in the form of one siliceous-paste turquoise glazed example in the State Hermitage collection, excavated at Tsarevo and exhibited in the Munich exhibition;⁸³⁶ it has a similar shape to that in Figure 5.1, but instead of incised decoration has facets – probably eight-sided. Imitation celadon Mamlūk number 3.7.4 has similar faceting, but is not as proportionally narrow and elongated, and with many more facets. There is a further exception in a profile drawing of survey finds from Shemakha Kala, Turkmenistan, with an identical shape to that of number 3.7.4, which is also labelled ‘*kashi*’ in the Russian report.⁸³⁷

The Īlkhānid and Mamlūk examples have distinctive shape variations - both are waisted to facilitate handling when reaching for from shelves (see Fig. 5.15 for an idea of how they would have been stored). The Īlkhānid ones have a rounded, bulbous lower section above the foot ring whereas the Mamlūk ones have a carination above it, and in profile the shoulder carination is approximately equal to the lower one (compare numbers 1.3.1 and 1.3.2 with numbers 3.2.1 and 3.2.2). Known Mamlūk examples are

⁸³⁵ *Ibid.*, 172, #81: diameter of rim 10.5cm; height 32.5cm.

⁸³⁶ München (2005), 240, #277: height 21.8cm; diameter 9.5cm, inv no Sar-239. Published for the first time. Neither this nor #2.2.4 were included in the Kazan exhibition - presumably they were still in Munich at this time.

⁸³⁷ Vakturskaya (1959), fig. 44 #135.

decorated in coloured-ground grey relief (type 3.1), non-relief coloured-ground (type 3.2), underglaze panel (type 3.3), imitation celadon (type 3.7), and cobalt and lustre, whereas Īlkhānid ones are found in coloured-ground relief (type 1.1),⁸³⁸ polychrome coloured-ground (type 1.3), black under turquoise (type 1.4), panel style (types 1.5.1-3), *lajvardīna* (type 1.9) and cobalt and lustre. Some of the Mamlūk coloured-ground examples have the addition of a red slip in the palette, highlighting birds' beaks, legs, flowers and horses' armour - a colour never used for Īlkhānid vessels. Other typical designs on the coloured-ground *albarelli* are the angular trifoliate leaves in the shape of a duck's footprint which seem to float as they have no stems, a bull's eye motif in white with a cobalt blue centre, daisy-like flowers and lotuses highlighted in cobalt blue. The smaller number of known Īlkhānid examples have either floral or geometric designs, without figural motifs. Both have a foot ring, but the Īlkhānid one is slightly splayed and has a nipple inside the foot, whereas typically the Mamlūk one is straight, and as with the jars, it looks as though it has been carved out. In a fragmentary state it is sometimes quite difficult to differentiate between the base of a so-called 'chamber pot' (see number 3.3.15 for an example) and that of a Mamlūk *albarello*, as they have the same carinated profile at the base. Some of the chamber pots have solid, flat bases.

As cited in the Catalogue, there is one *albarello* dated 717/1317-18 in a Naples collection,⁸³⁹ which gives an approximate *terminus ante quem* and the vessels dated 44 or 45 giving a date of 744 or 745/1343-44 (such as numbers 3.3.10 and 3.3.12) yet again indicate that this style, or variations of it, persisted for at least thirty years and probably much longer.

⁸³⁸ Folsach (2001), #217, inv no 5.1996; height 25cm.

⁸³⁹ Museo Capodimonte, Naples, Coll de Ciccio #5.⁸³⁹ Height 27.5cm.

5.6.5. Double-handled posset-pot

Linked in with these pharmacy jars is the so-called posset-pot. The pre-Mongol model had an elegant spout with its diagnostic double handles in the shape of felines,⁸⁴⁰ and some had poetic Persian inscriptions in bands below the rim (see Figs 5.13 and 5.14).⁸⁴¹ The spout must have acted as a straw or filter to enable the user to drink the liquid without the floating pieces that had been infused to make the concoction it held. The shape and feline double handles continued, but the spout was no longer added, see Catalogue number 1.4.27. The incised inscription band became a meaningless pseudo-epigraphic feature. Gisela Stiehler-Alegria, who has been working on Islamic pharmacy furnishings and equipment, suggests these beakers are part of early fourteenth century turquoise and black hospital sets specially commissioned by patrons like Rashīd ad-Dīn, as part of the endowments for their charitable institutions.⁸⁴² She also suggests that they may have been made in Sultāniyya.⁸⁴³ On the basis of the lower quality of the items collected by Reitlinger and Talbot Rice, I would argue against this latter statement, as both the Louvre (see Catalogue no 1.4.27) and the Cairo examples⁸⁴⁴ are more finely potted with a denser, siliceous-paste body, and decorated to a much higher standard. These pieces are important to demonstrate the longevity of style, with this basic shape, without the spout, continuing for over a hundred years.

5. 7. CONCLUSION

The lack of satisfactory scientific methods for identifying and differentiating between production sites and their products has been discussed. One of the chief factors in this continuing problem is the lack of known kiln sites and production work shops.

⁸⁴⁰ Benaki (2006), 117, #146; Lane (1947), pl 70a for *mīnā`ī* example in BM.

⁸⁴¹ Moriatsu (2005), 133-147.

⁸⁴² Stiehler-Alegria (2009), 49.

⁸⁴³ *Ibid.*

⁸⁴⁴ O'Kane (2006a), 268-69, cat # 228, inv no CM 275.

Published surveys and finds indicate scatters of kiln furniture and slag, but insufficient work has been carried out to investigate these. Or, nature has intervened, as at Saraichik where the excavators think that the workshops have been eroded away by the meandering Ural River.⁸⁴⁵ Part of the problem is continuous occupation in known centres such as Kashan, where the only published investigation notes that the foundations for Şafavid structures were built into the earlier kilns.⁸⁴⁶ By contrast in Fustāt Bahgat was able to carry out a mass clearance of the nitrogenous organic material (*sibākh*) formed by centuries of Cairo's rubbish which covered the former settlement, including the pottery workshops. Unfortunately archaeological methods in 1912 were insufficient to gain as much information as it would be possible to do today. These Fustāt 'excavations' began in the late nineteenth century⁸⁴⁷ and were largely unofficially sponsored by western museums.

In Iran, which is the chief focus of this study, there are many excavations in progress, but the main problem is lack of formal publications to disseminate this knowledge. For my fieldwork I concentrated on Azarbayjan and Khurasan, being two centres of Īlkhānid administration, and it is evident that there are many regional differences in decorative motifs for this pottery. Yet at the same time there is a degree of uniformity and it is this that makes it so hard to identify and define differences. It is important to recall that this is simple table ware for the urban merchant classes, administrative centres, religious institutions and government staging posts which had hospitality facilities for traders, scholars and itinerants. It is this freedom of travel under the *pax tartarica* that must have been responsible for disseminating taste and exchanges

⁸⁴⁵ Email correspondence with Kuznetsova.

⁸⁴⁶ Bahrāmī (1938), 226-7.

⁸⁴⁷ Wade Haddon (1991), 65.

of ideas. Yet cultural habits persisted and this must account for the continuing demand for specific shapes in different geographical areas.

5.8. FIGURES

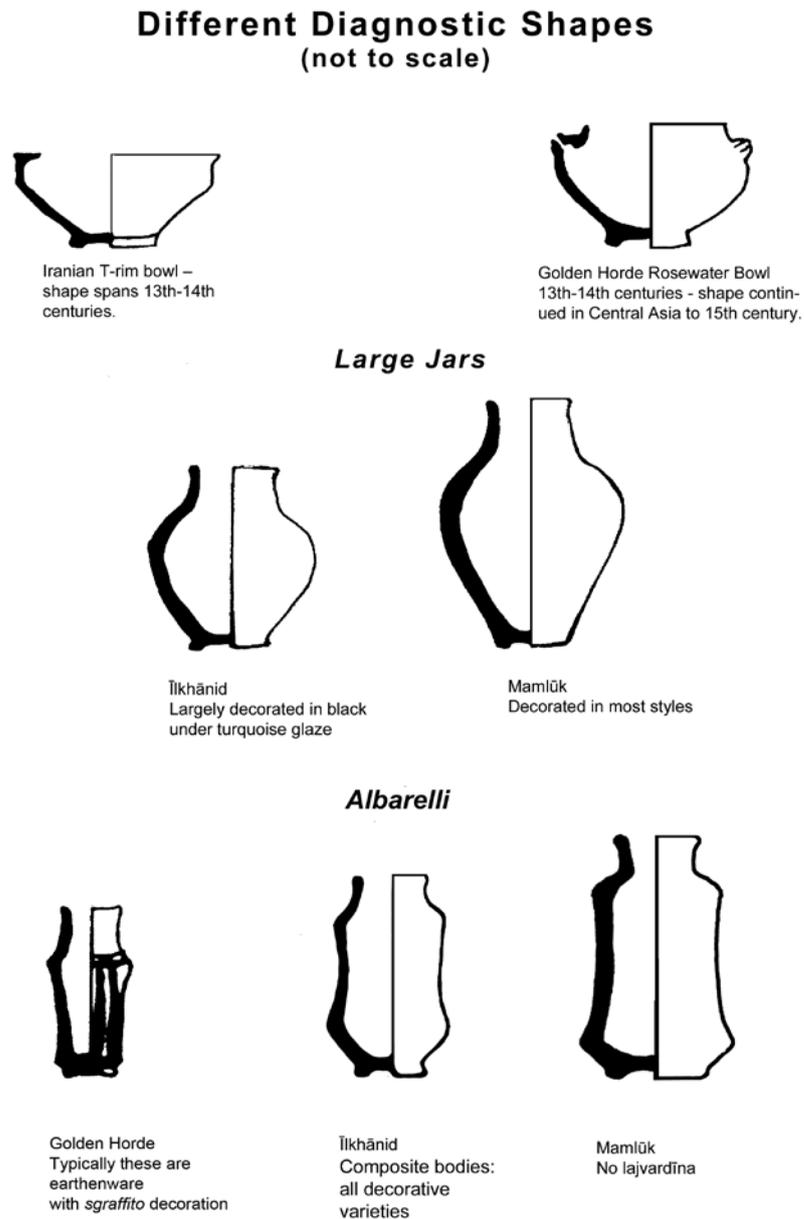


Fig. 5.1 – Diagnostic shapes.



Fig. 5.2 – Modern moulds at the Maybod pottery near Yazd. Apparently these plaster moulds last for around three months.



Fig. 5.3 – Half a stucco mould excavated at Selitryonnoye. State Hermitage inv no Sar-323, found at Tsarevo by Tereshchenko in the 1840s.⁸⁴⁸



Fig. 5.4 – Tile from the Bolgary excavations with an Arabic letter ث (*tha*) to the right of the scale to assist in assembling the complete panel. Photographed in the Kazan National Museum reserves.



Fig. 5.5 – Profile of a Golden Horde 'rosewater' bowl found at Kunya Ürgench, Turkmenistan, when clearing the area around the fourteenth century mausoleum known as Turabeg Khanum. After Pugachenkova 1960b.⁸⁴⁹

⁸⁴⁸ Kramarovsky (2005), 246, cat # 243.

⁸⁴⁹ Pugachenkova (1960b), 197.



Fig. 5.6 – A ‘rosewater’ bowl excavated at Bolgary, with its inscription band of repeated ‘*iqbāls*’ in unusually low relief, a glassy glaze and a simple striped vertical decoration below the carination. It lacks the characteristic carefully applied bosses; there was certainly room for one before the break, based on other examples. On display in the State Museum, Kazan – no further details.



Fig. 5.7 – An unglazed earthenware ‘rosewater’ bowl from Saraichik excavations.⁸⁵⁰ No further information provided. Between the three bosses on the shoulder there is a crosshatched design, possibly incised, but difficult to determine. The spout was probably at the back where a large part is missing and infilled with white plaster. After Samashev et al 2008.



Fig. 5.8 – Rosewater bowl excavated at Otrar, dated to second half of thirteenth century/early fourteenth century. No further information available.⁸⁵¹ After Baipakov and Evzakovich 1991.



Fig. 5.9 – The ‘Barberini vase’ in the name of al-Malik al-Nāṣir Salaḥ al-Dīn Yusuf, the last Ayyūbid ruler of Syria. Louvre collection, inv no OA 4090. Inlaid brasswork, Syria, Damascus or Aleppo, between 1237-1260. Height 45cm.⁸⁵²

⁸⁵⁰ Samashev et al (2008), 173.

⁸⁵¹ Baipakov and Evzakovich (1991), 157.

⁸⁵² Bernus-Taylor (2001), 72.



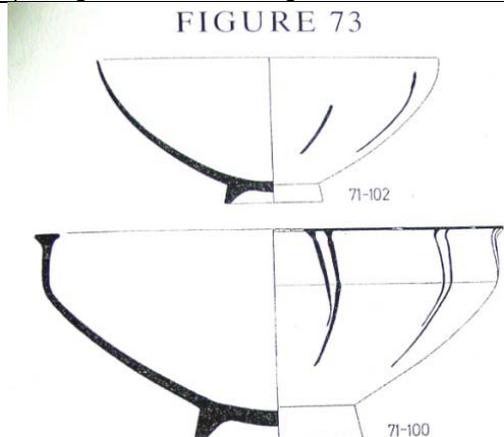
Fig. 5.10 – Mamlūk jars on display in the Louvre Museum in 2007. The only misplaced one is the small *albarello* centre foreground, which displays the classic Īlkhānid bulbous bottom half.



Fig. 5.11 – A Mamlūk type 3.8 jar in the Louvre Museum collection, inv no OA 4045. Max diameter 21.8cm; height 29 cm; diameter of base 8.3cm; diameter of mouth 9.1cm. The inscription has been read as a repeated *al- 'āfiya* (good health), which makes good sense if this was indeed used for pharmaceutical purposes. The lip is missing and mended with plaster. Image taken from website. No provenance. Acquired in 1897.



Fig. 5.12 – T-rim bowl excavated at Ghubayrā in 1971. The decoration is underglaze in blue, black (almost aubergine), and turquoise. Note the pronounced indent in the tondo, which creates a rounded base inside the ring foot. Diameter 28cm; height 13.2cm. After Bivar 2000.⁸⁵³



⁸⁵³ Bivar (2000), 152, pl 99, fig 73.



Fig. 5.13 – A pre-Mongol Kashan lustre posset-pot with spout. V&A C.362-1918. Height 15cm; diameter 16.5cm; max width including handles 20.5cm.⁸⁵⁴



Fig. 5.14 – A pre-Mongol Kashan underglaze-painted posset-pot with spout. Benaki Museum, Athens collection, inv no 1401. Rim diameter 13.5cm; height 15.5cm; after Moraitu 2005.⁸⁵⁵

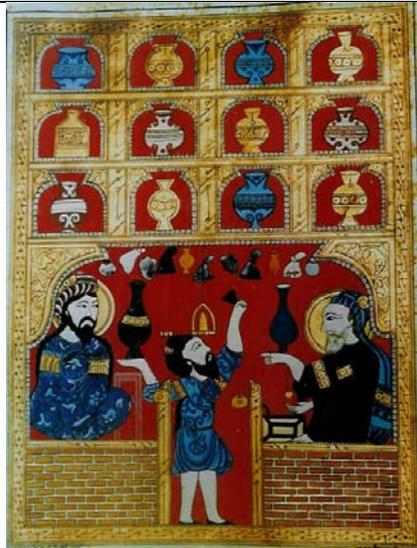


Fig. 5.15 – A highly coloured image of the frontispiece to a Dioscorides manuscript (Ayosofya 3703, fol 2r) in the Süleymaniye Mosque library, dated 621/1224. While it is earlier, it gives an idea of a typical pharmacy, with jars high up on the shelves. The development of the waisted albarello must have helped the pharmacist's assistant.

⁸⁵⁴ Watson (1985), 68, 80, pl 42.

⁸⁵⁵ Moraitu (2005), 137-147.

Table 5.1. Shapes and Decorative Styles for all Three Areas

Stem-cup	Jugs	Ink-well	T-rim	Lotus	Everted rim	Wide ledge rim	Incurving rim	Rose-water	Albarelli	Jars	Type of decoration
			x						x	x	1.1
				x	x	x	x	x			2.1
											3.1
	x			x	x		x				1.2
											2.2
											3.2
	x		x	x		x	x		x	x	1.3
											2.3
											3.3
x	x	x	x	x	x	x	x		x	x	1.4
											2.4
											3.4
x		x	x	x							1.5.1
					x	x					1.5.2
	x	x	x	x					x	x	1.5.3
								x			2.5
											3.5
					x	x					1.6
											2.6
											3.6
x	x		x		x	x			x	x	1.7
											2.7
											3.7
			x	x		x	x				1.8
								x			2.8
											3.8
x	x		x						x	x	1.9
											2.9
											3.9
										x	1.10
x					x		x				1.11
			x							x	1.12
					x						1.13
					x						1.14

6. ORGANISATION AND USE

6.1. INTRODUCTION

There is no doubt that pottery making was not considered to be an important feature of medieval life, judging by the negligible attention it received from historical geographers when listing local industries. This may be due to the minimal taxable income derived from it, and its utilitarian nature. Medieval commentators must have taken its existence for granted. Usually they only commented on the unusual and the miraculous. The thirteenth century author Yāqūt (d 626/1229), exceptionally, puts Kashan's *qāshī* industry first when listing the city's attributes,⁸⁵⁶ before its famous scholars and distances to neighbouring centres. Ibn Baṭṭūṭa does not record visiting Kashan and makes the occasional observation on pottery in the course of his travels. However, he devotes a short chapter to the Chinese product (*al-fakhār al-ṣīnī*) when recounting the wonders of China.⁸⁵⁷ He states that it was made in Quanzhou (*madīnat al-zaytūn*) and Guangzhou (*ṣīn kalān*) – the two main ports from which Chinese ceramics were exported and which had sizable Muslim communities. His description of the materials used and their preparation reads like a section from Abū'l Qāsim's treatise.⁸⁵⁸ He states that it was as cheap, if not cheaper than pottery in “our country (*wa huwa hunāk bi-qīmat al-fakhār bi-bilādnā aw arkhaṣ thamanān*).”⁸⁵⁹ He gives no idea as to who his informant was, probably one of the Muslim traders in one or other of the two ports, or maybe he visited one of the pottery centres in their hinterland.

⁸⁵⁶ Yāqūt (nd), vol 4, 296.

⁸⁵⁷ Ibn Baṭṭūṭa (nd), 627-68.

⁸⁵⁸ Allan (1973), 114-15; Ibn Baṭṭūṭa (1929), 282-83.

⁸⁵⁹ Ibn Baṭṭūṭa (nd), 628.

6.2. ABŪ'L QĀSIM'S TREATISE⁸⁶⁰

This treatise has already been mentioned in Chapter 5, section 5.2, but little detail was given. James Allan's translation and commentary gives an easily accessible account of the ingredients and processes involved in making siliceous-paste wares. It also indicates the variety of kilns and equipment needed for such an enterprise. However, it is important to understand that, as mentioned in Chapter 1, section 1.3, this treatise is an amalgamation of earlier works, as indicated by Yves Porter,⁸⁶¹ and thus relates to traditional methods and not necessarily fourteenth century innovations. Abū'l Qāsim relates that these vessels were made by the master craftsman at a potter's wheel, and the feet were added after the throwing process had finished.⁸⁶² We know that closed forms were made in two halves and then luted together, as observed in Catalogue number 1.12.2b. He states that an "earthenware case with a fitting lid" (in other words a 'saggar' – see Fig. 6.1a/b for a Chinese example) was used to protect each vessel in the kiln. These were stacked inside a tower-like kiln on fired earthenware pegs, which were about a *dhirā* 'and a half long (a *dhirā* ' or an 'arm's length' is between 56-66cm long according to Wehr,⁸⁶³ depending on the country). The example illustrated in Figure 6.2 from Takht-i Sulaymān is exactly 66cm, so a little shorter, but perhaps an 'arm's length' was a little shorter in fourteenth century Iran. See Figures 6.4 and 6.5 for an idea of how kilns were stacked, and examples of kiln furniture.

Abū'l Qāsim describes both the lustre process and that for enamelling, including how the sheet gold was applied. He does add that the *haft rang*, or 'seven colour' wares were no longer in general production, only the occasional example specially

⁸⁶⁰ Allan (1973)

⁸⁶¹ Porter (2004a), 165-89.

⁸⁶² Allan (1973), 114.

⁸⁶³ Wehr (1976), 309; Allan (1973), 119 – gives an alternative definition as being from the tip of the middle finger to the elbow (between 40-45cm), which is the measure Yemeni textile vendors in the suq used in the 1970s.

commissioned for shrines,⁸⁶⁴ a fact that would appear to fit in with the archaeological record, which indicates he was au fait with contemporary output. The vessel was then fired for a second time in a special ‘gilding furnace’ or muffle kiln for around twelve hours at a lower temperature than at the first one.⁸⁶⁵ From time to time samples were tested to check the colouration. The same protocol is followed today with test rings.⁸⁶⁶ While he tells us nothing about the workshop organisation other than firing techniques, this is nonetheless a useful treatise. He indicates that siliceous-paste wares were made in Baghdad, Tabriz and ‘other places’ in addition to Kashan when describing the choice of wood for firing the kilns,⁸⁶⁷ thus confirming that there were multiple centres for these workshops, as well as for regional earthenware producers. The other noticeable omission is the mention of *kārkhānas* – this is probably because these potteries were private family concerns and neither state organised nor state owned. Rashīd ad-Dīn, Abū’l Qāsim’s patron, writes in his *World History* about textile *kārkhānas*, and how in the struggle between Tegüder Aḥmad (r 1281-84) and Arghun (r 1284-91), Tegüder’s troops seized 300 households of Arghun’s textile artisans in Varāmīn, and to retaliate Arghun sent word to Jurjān, Nishapur, Ṭūs and Isfarā’īn to collect all the gold, woven textiles and garments available in the state workshops in order to have ready payment for his troops in the ensuing débacle.⁸⁶⁸ This confirms that *kārkhānas* for prestige goods were already well-established by the end of thirteenth century, but pottery making certainly was not. Although they must have had the ability to move potters to sites for architectural elements in massive building projects, such as those in Tabriz and the

⁸⁶⁴ Allan, (1973), 115.

⁸⁶⁵ *Ibid.*

⁸⁶⁶ Nick Caiger-Smith – “Reduction-fired lustre: a maker’s perspective” - lecture to the Institute of Conservation meeting on 14 May 2011 in the V&A entitled “Losing Your Lustre”.

⁸⁶⁷ Allan (1973), 114.

⁸⁶⁸ Allsen (1997), 57.

founding of Sulṭāniyya in the early fourteenth century; perhaps official patronage was sufficient incentive. This is discussed further below.

6.3. ORGANISATION AT THE GOLDEN HORDE SITE OF SELITRYONNOYE

To my knowledge Selitryonnoye is the only scientifically excavated fourteenth century pottery workshop complex producing siliceous-paste wares studied to date. The kiln complex at Bālis Meskeneh excavated by the French and studied by Thiriot is thirteenth century, and there is no absolute proof they were firing siliceous-paste wares.⁸⁶⁹

Selitryonnoye's interpretation undoubtedly suffers from a Marxist bias, but that aspect is easily ignored. In Fedorov-Davydov's words, "This large shop, with more than forty kilns, produced nearly every type of tableware as well as architectural elements."⁸⁷⁰ He goes into great detail relating the kiln furniture to different aspects of workshop practice.⁸⁷¹ Seven different types of kilns were identified at the Golden Horde sites.⁸⁷²

Brick kilns would appear to be ubiquitous in the Volga centres, large rectangular structures with most producing both glazed and unglazed bricks. There were kilns for architectural decoration, which could even reuse any siliceous-paste tile wasters by breaking them up and grinding them down again, but they could not use vessel wasters as they had too much glaze which would render the paste unworkable.

Fedorov-Davydov, citing Bulatov's studies,⁸⁷³ states that the Golden Horde siliceous-paste vessels were made in stucco moulds. Fragmentary examples were excavated at Selitryonnoye. Unfortunately the published pieces are poorly photographed without any line drawings so it is difficult to appreciate their shape. Fedorov-Davydov

⁸⁶⁹ Thiriot (forthcoming); email of 9 November 2012 stipulates no siliceous-paste wasters were found associated with the kilns, only a few well-fired sherds.

⁸⁷⁰ Fedorov-Davydov (2001), 78.

⁸⁷¹ Fedorov-Davydov (1984), 143-170.

⁸⁷² *Ibid.*, 146.

⁸⁷³ Bulatov (1972), 271.

states that “The mould also produced the relief on the kashi sherds.”⁸⁷⁴ Stucco moulds were widely used for architectural elements too (see Fig. 5.3). Fedorov-Davydov describes the physical makeup of the Selitryonnoye siliceous-paste products, which usually followed the standard recipe of 85-90% quartz sand, up to 5% clay, 5% frit. However, some had as little as 60-70% quartz sand, “not only siliceous white sand but also gray and red river sand.”⁸⁷⁵ This dilution of the quartz content would apparently lower production costs. It is not clear whether this was for both vessels and architectural elements. One of the kilns at Tsarevo produced siliceous-paste tablets for tile mosaic pieces as well as earthenware small animal figures, but there was no evidence for vessel manufacture.⁸⁷⁶

They identified three different categories of workshops:

1. Individual ones with strict specialisation, such as tablets for tile mosaics – the excavators were able to detect a drop in production quality latterly in one Tsarevo kiln, when it started producing red clay bricks instead.⁸⁷⁷
2. Estate shops with two kilns for making glazed red and grey earthenwares. Examples of these are found at most Golden Horde sites.⁸⁷⁸ They share the work space with other craftsmen such as bone carvers and jewellers.
3. Large factories with multiple kilns and full production range. There was one at Selitryonnoye, where they could see its evolution from a number of different types of kilns inside a walled villa area – possibly

⁸⁷⁴ Fedorov-Davydov (1984), 144.

⁸⁷⁵ *Ibid.*, 144.

⁸⁷⁶ *Ibid.*, 149.

⁸⁷⁷ *Ibid.*, 155.

⁸⁷⁸ *Ibid.*, 156.

a large estate factory.⁸⁷⁹ This they dated to 1330-1360. The second phase (1370-1390) is marked by a crumbling villa and the shop spreading, and encroaching upon the residential space – walls were rubbed out. They interpret this second phase as a major commercial enterprise, possibly an official workshop.⁸⁸⁰

Fedorov-Davydov assumes that much of the labour was slave labour, citing Carpini's accounts for a century earlier.⁸⁸¹ While there are no contemporary accounts, drawing analogies with Īlkhānid practice, there were certainly still slaves in the service of wealthy individuals, as detailed in Rashīd ad-Dīn's *waqf* deed.⁸⁸² However, the Mamlūk biographer al-Yūsufī (d 759/1357-8) writing an account of the foundation of Sulṭāniyya records⁸⁸³ that a thousand brick kilns were established, another thousand for slaking lime, and over twenty thousand men employed to build the city, but there is no mention of any of them being enslaved. They had probably worked on both Rashīd ad-Dīn's and other imperial Īlkhānid projects in Tabriz and Hamadan, and were only too willing to continue employment. A powerful state can always mobilise a work force, with or without coercion.

6.4. REFLECTIONS ON THE ORGANISATION OF POTTERY WORKSHOPS IN ĪLKHĀNID AND MAMLŪK TERRITORIES

There are passing references to guilds in late medieval Iranian and Mamlūk territories, without any clear proof that they existed. Some commentators have cited the eighth book of the *Rasā'il Ikhwān al-Ṣafā'* (*The Epistles of the Brethren of Purity*)⁸⁸⁴ as proof of the possible existence of craft organisations as early as the tenth century. Many

⁸⁷⁹ *Ibid.*, 156.

⁸⁸⁰ *Ibid.*, 157.

⁸⁸¹ Carpini (1903).

⁸⁸² Blair (1984), 87.

⁸⁸³ Little (1978), 173.

⁸⁸⁴ Lewis (1943): 142-151; idem (1937): 20-37; for a summary of other citations and an argument for their existence from the thirteenth century see Hamdānī (2002), 157-173.

commentators have assumed a formal organisation that probably did not exist until the Ottoman administration, although even then this would not necessarily have pertained to a contemporary Iran. For example, we have Janet Abu-Lughod stating that “...guilds of independent merchants were powerful in both places.”⁸⁸⁵ By this she meant Egypt and China, citing Fischel⁸⁸⁶ “and others for Egypt”, without listing the ‘others’. Her reference to Fischel’s work describes the activities of the Kārimī merchants, controllers of the Indian Ocean spice trade and other agricultural commodities, but nowhere in the article does he refer to a guild organisation. Indeed he is unable to explain the precise meaning of the word ‘Kārimī’.

Marcus Milwright highlighted in his article on pottery in the written sources⁸⁸⁷ two fourteenth century Mamlūk historiographers who discuss market inspection (*ḥisba*) that stipulate correct practices for potters, they make no mention of actual formal organisations. Control of both pottery manufacture and trade within the cities seemingly rested with the government market inspector (*muḥtasib*).

As stated above, there were certainly royal workshops (both *kārkhāna* and *kitābkhāna*) in Īlkhānid Iran. The *kitābkhāna* are mentioned in *waqf* documents describing the production of illuminated manuscripts.⁸⁸⁸ It is thought that court patronage accounted for a noticeable uniformity in architectural designs and royal regalia.⁸⁸⁹ Michael Rogers argues for similar court workshops to have been established by the fourteenth century Mamlūk rulers too, based on the consistent high quality of inlaid metal wares, manuscripts and woodwork.⁸⁹⁰ However, from signatures on stucco

⁸⁸⁵ Abu-Lughod (1989): 17.

⁸⁸⁶ Fischel (1958), 157.

⁸⁸⁷ Milwright (1999a): 508.

⁸⁸⁸ Blair (1996): 39 ff.

⁸⁸⁹ *Ibid.*

⁸⁹⁰ Rogers (2012).

and tile work, such as that on the tomb tower at Baṣṭām,⁸⁹¹ there is nothing to indicate a formal organisation outside traditional family craft organisations. Timur is reported to have moved potters from Damascus to Samarqand in 1401 to establish a fine ceramics industry manufacturing siliceous-paste wares there, and presumably he just uprooted these families.⁸⁹²

The suggested presence of fourteenth century guild or trade associations in Anatolia can be traced to Ibn Baṭṭūṭa, and the conclusion that he is an unreliable commentator due to his lack of Turkish, is summarised by Suraiya Faroqhi in her recent study of Ottoman artisans.⁸⁹³ She states that there are no Ottoman archival documents covering the fourteenth and early fifteenth centuries. Ibn Baṭṭūṭa implies that the brotherhood of young artisans, or *ākhīs*, who competed to entertain him in some towns, were some form of trade organisation. Due to his possible misunderstanding of their status, in spite of the later use of the same title for those involved in trade organisations, Faroqhi states: “We therefore cannot guarantee that Ibn Baṭṭūṭa did not overlook or misunderstand some of the phenomena that he saw, especially forms of organization he had not known in his native Morocco.”⁸⁹⁴ A little earlier she suggested that the Anatolian guild organisations were probably imported from the eastern Balkans, as there is no evidence from the Geniza documents that such a system existed in Egypt or Syria prior to the Ottomans.⁸⁹⁵

When discussing the possible production process, Milwright cites the numerous ‘signatures’ to be found on the Mamlūk siliceous wares, with names such as Ghaybī ash-Shāmī, and the phrase ‘*amal shaykh al-ṣanā’i*’ (made by the head of the workshop), alongside titles such as *ustādh* (master craftsman) and *shaykh* which indicate a

⁸⁹¹ *Ibid.*, Fig 7, 46.

⁸⁹² Clavijo (1928), 287-88.

⁸⁹³ Faroqhi (2009): 27-28.

⁸⁹⁴ *Ibid.*, 28.

⁸⁹⁵ *Ibid.*, 26.

hierarchical system of master craftsmen and co-workers within these Egyptian and Syrian workshops. He also looks to Raby's section on "Costs and Rewards" in his co-authored book on Iznik production for likely comparisons with the Mamlūk system.⁸⁹⁶ Raby states that "The family tradition was always strong in pottery production in the Muslim world:" citing both Abu'l Qāsim's family workshop's organisation in the thirteenth and fourteenth centuries and making twentieth century comparisons with the pottery industries at Meybod and Pakistan to demonstrate this continuity.⁸⁹⁷ Raby outlines the organisation of the Ottoman court workshops, which brings to mind those of China, where special court orders were supervised by officials from the Board of Public Works, who brought specific drawings to the potteries;⁸⁹⁸ in Ottoman Turkey the *qādi* of Iznik and the 'head of the potters' supervised these court commissions.⁸⁹⁹

Travelling in the Mamlūk territories in 1384, the Florentine Lionardo

Frescobaldi comments on the crafts of Damascus:

*"The artisans there cannot change arts; so that if the father made cloth, or he was a goldsmith, or had any other art, his son and all his descendants cannot ever exercise any other art but that. And this is the reason why the things are better made there, and more beautifully than with us."*⁹⁰⁰

Thus confirming the family tradition of crafts in general.

In Iran there are no signatures to be found inside the foot rings of any vessels, but many of the lustre tiles commissioned for Shi'ite tombs and Šūfī shrines give us a little insight into the family organisation. Watson was able to trace the history of four lustre potting families through several generations by their signatures spanning the pre-Mongol and Mongol periods.⁹⁰¹

⁸⁹⁶ Milwright (1999a): 507.

⁸⁹⁷ Atasoy and Raby (1989), 63.

⁸⁹⁸ Medley (1986): 194.

⁸⁹⁹ Atasoy and Raby (1989), 63.

⁹⁰⁰ Frescobaldi, Gucci & Sigoli (1948), 86.

⁹⁰¹ Watson (1985), 178-81.

In the light of the evidence presented, it would appear that family organisations operated within this industry and market inspectors controlled the trade and practices through acknowledged master craftsmen. Malpractice was controlled through these inspectors. Following in the opinion of Stern, Islamic guilds before the Ottoman practice were a myth, and an invention of earlier commentators who never provided proof for their existence.⁹⁰²

6.5. UTILITY

One of the threads in this study is the question of utility and who actually used these vessels. Archaeological finds indicate that although decorative ideas travelled beyond each political territory, the vessels themselves did not, and that there are many regional variations. The exceptions being amongst household effects such as the Golden Horde pieces discovered in Novgorod, which the excavators consider were personal belongings and as most were found in the same place, propose that it was the property of one family of the *boyar* class, rather than representing a commercial cache.⁹⁰³ In the Mamlūk world vast quantities of fragments were found in urban dumps and more restricted amounts at administrative posts such as Karak, Şafad, and al-Raḥba, and even most of these were from dumps. At the moment there are few finds from within a stratified cultural context. Williamson's work at Dasht-i Deh is a rare example, and it is our loss that it is incomplete (see Chapter 3, section 3.12.1).

Most of the closed forms found distributed around the Mediterranean are Mamlūk jars and *albarelli*. As it was the Mamlūk territories that controlled the spice trade through the Kārimī merchants⁹⁰⁴ it is tempting to hypothesise that these were largely shipped as containers or packaging for these high-value goods, and not for their

⁹⁰² Stern (1970), 25-50.

⁹⁰³ Koval (2006), 190-91.

⁹⁰⁴ Tsugitaka (2006), 141.

own practical use, that would have been secondary when their original contents had been used up.

Ibn Baṭṭūṭa gives the odd passing reference to what his meals were served on, but most of the time he describes what he ate. He does mention a visit to the sultan of Birgi who served a concoction of sherbet with raisins, lemon juice and small pieces of biscuit served in gold and silver bowls with gold and silver spoons⁹⁰⁵ – probably in the manner of the bowls being carried in on the red table in Figure 6.7, bottom left. You can just see the spoons in the bowls. The white ones may be china and the gold ones have been painted in gold paint. “At the same time they brought some porcelain bowls containing the same beverage and with wooden spoons, and any who felt scruples about using the gold and silver vessels used the porcelain bowls and wooden spoons.”⁹⁰⁶ The Arabic words used for “porcelain bowls” in this instance is *ṣahāf al-ṣīnī*.⁹⁰⁷ This could just as easily be translated as ‘china bowls’, which returns to the problem of translation and usage discussed in Chapter 5, section 5.2 as to whether ‘china’ is a generic for fine ceramics or a specific for Chinese products. A little earlier, the learned professor Muḥyī al-Dīn had invited Ibn Baṭṭūṭa to join him in his garden and sat round a marble basin edged with enamelled tiles⁹⁰⁸ (Arabic: *al-qāshānī*).⁹⁰⁹ The use of ‘enamelled’ is Mackintosh-Smith’s translation, and there is no way of knowing if they were decorated underglaze or overglaze, or made in Anatolia or Iran, but I think it does indicate that *al-qāshānī* was used generically for siliceous-paste ceramics. The use of earthenware tiles with marble would have been a little bizarre, and Ibn Baṭṭūṭa must have been sufficiently impressed with the combination to comment on it.

⁹⁰⁵ Ibn Baṭṭūṭa (1962), II, 442.

⁹⁰⁶ *Ibid.*

⁹⁰⁷ Ibn Baṭṭūṭa (nd), 302.

⁹⁰⁸ Ibn Baṭṭūṭa (2002), 108.

⁹⁰⁹ Ibn Baṭṭūṭa (nd), 299.

Ibn Baṭṭūṭa normally stayed in hospices or as a guest of a religious scholar. Bearing in mind the fourteenth century boom in building pious foundations⁹¹⁰ and the detailed requirements itemised in Rashīd ad-Dīn’s endowment deed for the Rab ‘-i Rashīdī,⁹¹¹ it is tempting to suggest that these siliceous-paste wares were not only used by the urban middle classes and rural administrators, but also furnished the guest suites in hospices and caravansarais. In the Rab ‘-i Rashīdī the guest space was separate from the Ṣūfī hospice. The hundred poor who were fed daily were locked in the poor house dining hall and the bowls counted out and in.⁹¹² Blair interpreted this control was due to earthenware bowls (*kāsa-yi sifālīn*) being expensive. Unfortunately Persian is as imprecise as Arabic and I understand that *sufāl* is a generic for all ceramics, so it is impossible to know what type of ceramic dish Rashīd ad-Dīn was referring to here.⁹¹³ Earthenwares would have been inexpensive, made locally and in plentiful supply, but logistically a hundred dishes would be bulky so whatever they were made from it would have been more convenient to retain them. In Cairo some varieties were certainly used once and chucked.⁹¹⁴ Guest house visitors were permitted to stay for up to three days and were given the same food as the residents, so there would have been a need for considerable quantities of tableware. Patrons are recorded as entertaining in their hospices too. For example, Ibn Baṭṭūṭa en route for Azak was the guest of the *amīr* Tuluktumūr in his hospice at Sajjān where he “found that the *amīr* had prepared there a great banquet, including bread.⁹¹⁵ They then brought in a white liquid in small bowls and those present drank it.”⁹¹⁶ These ‘small bowls’ would have been what the Russians

⁹¹⁰ Golombek (1974).

⁹¹¹ Blair (1984).

⁹¹² *Ibid.*, 83.

⁹¹³ Information supplied by Dr Javad Golmohammadi.

⁹¹⁴ Milwright (1999), 505, citing al-Maqrīzī (1855), II, 95.

⁹¹⁵ Ibn Baṭṭūṭa (1962), II, 474 - A little earlier he had stated that “These Turks do not eat bread nor any solid food,” so this was a remarkable fact.

⁹¹⁶ *Ibid.*, 475.

call *piyala*, and are plentiful at Golden Horde sites. The Catalogue in volume 2 has many examples. Ibn Baṭṭūṭa also describes the Mongol beverage *qumiz* being poured out of skins, which would account for there not being many ewers or bottles in the Golden Horde assemblages.⁹¹⁷

6.6. SHAPES IN RELATION TO THEIR UTILITY

Utility and shape are closely connected and have been discussed in Chapter 5 in relation to their diagnostic features. Given that archaeology provides few in situ contexts it is difficult to come to any absolute conclusions; it is only possible to make suggestions in the hope that in the future eventually these theories will be proven. Another source of information is illustrated manuscripts, which present formal banqueting scenes like those in Figures 6.6 and 6.7. Ibn Baṭṭūṭa describes banquets held in mixed company, which is confirmed by these figures. Audiences with the sultan were public affairs and doubtless both the craftsmen and merchant classes observed the court regalia and wished to emulate their leaders in an affordable manner. With the peripatetic Mongol courts it is understandable how easily such ideas could be disseminated.

Although sweetmeats were eschewed by the Golden Horde rulers,⁹¹⁸ in the Ilkhānid and Mamlūk worlds they were a major feature in all banqueting descriptions and included in *waqf* deeds: Rashīd ad-Dīn stipulated that his twenty-four *qur'ān* reciters should be served warm sweets when they had finished.⁹¹⁹ These would have required a series of dishes. Sugar was considered to be both medicinal and luxurious in the fourteenth century and a key ingredient for many delicacies.⁹²⁰ Tsugitaka in his study on the Mamlūk sugar trade describes it as “one of the generic medicines sold by

⁹¹⁷ *Ibid.*, 481.

⁹¹⁸ *Ibid.*, 474.

⁹¹⁹ Blair (1984), 81.

⁹²⁰ Tsugitaka (2004), 101.

druggists (*attār*), as well as a luxury good traded by sugar merchants (*sukkarī*).”⁹²¹ These druggists also sold spices and it is no surprise to learn that the Kārimī merchants were heavily invested in the sugar production process too. Syrups would have been stored in the jars or *albarelli*; when the refining process was completed cone-shaped loaves of sugar crystals were formed in the shape of the receptacle they had formed in, would have required large dishes.

In Figure 6.7 note the white and gold bowls are exactly the same shape. The royal couple are being presented with gold bowls on white dishes, and on the red lacquer table there is a spouted pouring cup and beside it, behind the smudge, is a large jar. This spouted pouring cup is a common Yuan shape,⁹²² and fragments of imitation ones have been found on the Aleppo citadel.⁹²³ It was dipped into the jar and then the liquid was poured into one of the gold or china bowls. In Figure 6.6 it looks as though samples are being brought to the *khatūn* or noble lady for a tasting session. The tented enclosure on the right hand side could be the entrance to Uzbek Khān’s Gold Pavilion described by Ibn Baṭṭūṭa as “constructed of wooden rods covered with plaques of gold;”⁹²⁴ this is a seemingly irrelevant comment, but it is an observation on the accuracy of the representations in this illustration.

The T-rim bowls from Dasht-i Deh and Ghubayrā were both found in kitchen contexts. Their flat rims with an overhanging lip would have been practical for preventing liquids spilling. On my two study tours to Iran I asked numerous people what they thought these vessels would have contained and the popular opinion was a liquid, soupy stew or *ābgūsh*t which continues to be served. Williamson reported that

⁹²¹ *Ibid.*, 101.

⁹²² Carswell (2002), 30, figs 28 and 29.

⁹²³ In preparation for publication by Carswell.

⁹²⁴ Ibn Baṭṭūṭa (1962), 483.

the Dasht-i Deh bowl had a hole pierced in its foot ring,⁹²⁵ a feature common to many of these vessels. He suggested that it was for display purposes, but I think there was a more practical dimension to this. With the lack of cupboards and shelving, most equipment was probably hung on the kitchen walls to keep them out of harm's way yet easily accessible. Goitein supports this idea for Cairene kitchens:

*“To avoid congestion in the kitchen one suspended whatever one could from the walls and ceiling. There were “hooks for the kitchen,” hangers, “thorns,” that is, spikes for the cups, and a special contrivance named kab(a)ka, a perforated copper board suspended from the ceiling on which one stacked the dishes. The documents in which this object is mentioned were written in the eleventh century. In one case it was given as collateral; in a trousseau list it concluded the Copper section.”*⁹²⁶

Admittedly this is for three centuries earlier, but I have observed a similar practice today in rural kitchens throughout Arabia, and am sure it is a habit that has persisted throughout the centuries.

The rosewater bowl has no obvious use other than being a pouring vessel. It was impossible to establish how it was so named; there is no textual support. Its large spout would have poured efficiently, and the bosses assisted in handling it. The recent discovery of a matching lid makes more sense, in that when not in use its precious contents were protected from insects and dust.⁹²⁷ However the two earthenware examples (Figs. 5.7 and 5.8) do not appear to have had spouts and look more like cooking pots. I would propose that the siliceous-paste ones were serving dishes, possibly closely related to the T-rims in that they held soupy liquids which could also be poured, or excess fat skimmed off. Alternatively, they could have served as containers for warm water for hand washing before and after meals, perhaps filled with fragrant rosewater, which is how the Russian excavators interpreted them.

⁹²⁵ Williamson (1972a), 177 – see Chapter 3, section 3.12.1.

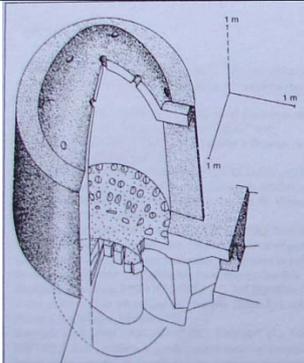
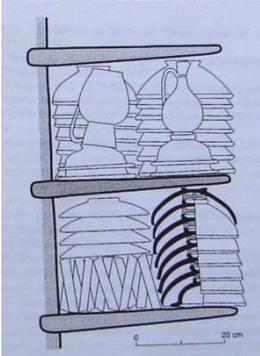
⁹²⁶ Goitein (1983), 144.

⁹²⁷ See Volume 2, Catalogue number 2.1.14a, page 114.

6.7. CONCLUSION

It is evident that production knowledge and utility is far from complete and there are still many outstanding questions to be answered and curiosities to be solved. The Selitryonnoye excavations certainly give a fuller picture of workshop organisation, and serve as a useful model and reference point for artefacts found out of context in survey finds and museum collections. This confirms that this is very much work in progress.

6.8. FIGURES

	
<p>Fig. 6.1a – Earthenware saggar for a thirteenth century Chinese Jun ware bowl. Ashmolean collection inv no X.1564.</p>	<p>Fig. 6.1b – Interior of saggar with Jun ware bowl inside. Unfortunately the bowl adhered to the saggar, it is an unsuccessful example.</p>
	<p>Fig. 6.2 – An earthenware kiln peg from Takht-i Sulaymān. Berlin Museum collection, inv no I.13/69.51.2. Length 66cm; diameter 5.1cm, tapering to 2cm.</p>
	
<p>Fig. 6.3 – Kiln tripod trivet or <i>sepayā</i> from the Tūs citadel excavations.</p>	<p>Fig. 6.4 – Model of a kiln in use throughout the Mediterranean, and in Mamlūk, Īlkhānid and Golden Horde potteries. After Thiriot 2003a.⁹²⁸</p>
	<p>Fig. 6.5 – Sketch of the stacking method with the pegs firmly lodged in the kiln wall. Note the trivets depicted inside the upturned bowls. After Thiriot 2003a.⁹²⁹</p>

⁹²⁸ Thiriot (2003a), fig. 34.

⁹²⁹ *Ibid.*, fig. 35.



Fig. 6.6 – Preparations for a banquet, illustration from the Diez Albums, 14th century Iran. Ink and colour on paper. National Library, Berlin. Diez A fol 70, S18, no 1. Image from internet.⁹³⁰

⁹³⁰ <http://commons.wikimedia.org/wiki/File:DiezAlbumsTravelling.jpg>.

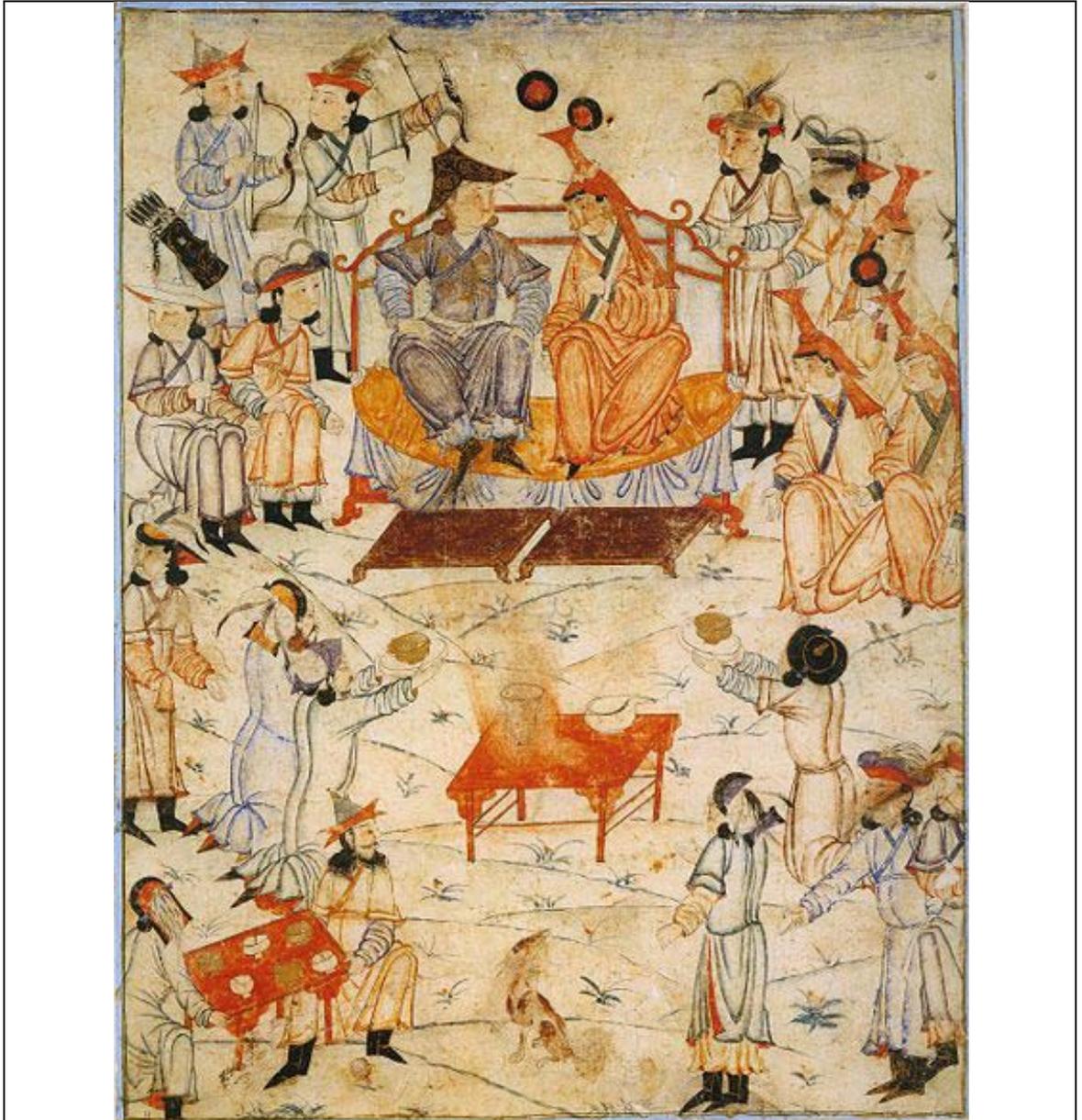


Fig. 6.7 – Enthronement scene – illustration from the Diez Albums, early 14th century Iran, possibly Tabriz. Ink, colours and gold on paper. National Library, Berlin. Diez A fol 70, S22. Image from internet.⁹³¹

⁹³¹ *Ibid.*

7. CONCLUSION

The object of this study was to establish criteria for differentiating between siliceous-paste table wares that were available for daily use in fourteenth century Turco-Mongol territories. However, the major stumbling block is the lack of uniform archaeological information and published accounts of the work that has been carried out. In the case of Iran I think that eventually ICHTO's archaeologists will be able to present a corpus of diagnostic wares for each region, and that it may well be that several types that were presumed to be ubiquitous, due to the duplicity of the dealers and their circulating numerous complete examples amongst Western museums and collections, are not. I believe that these will be shown to be restricted to specific regions, with possibly a few examples being in circulation in other areas, perhaps transported as personal belongings as opposed to traded. Further studies will undoubtedly identify multiple production sites and it is important to keep an open mind on this and cease referring to limited centres such as Kashan.

One of the principal means of dissemination of decorative styles was most probably through institutional establishments such as the religious foundations and khans that flourished in the first half of the fourteenth century once the Īlkhāns had converted to Islam. With the Treaty of Aleppo finalised in 1322-23 even greater contact between the two polities followed and Īlkhānid decorative influences were felt in both Syria and Egypt. In the Mamlūk world public displays and audiences were the norm for feast days so there was plenty of opportunity for all citizens to witness what was available and in fashion. It was an important part of the legitimizing process to demonstrate that Islamic practices were followed in every respect and this included dining. Precious metalwares and Chinese imports would have been beyond the ordinary citizen's budget, but local artisans were adept at imitating.

The scientific work carried out in the Golden Horde territories is the most revealing for the time being and they have the distinct advantage of many sites not being endangered by modern urban development. Bolgary, for example lies in the middle of the countryside and is only visited by bus tours and river boats. Coupled with this they have the counterbalance of well-documented excavations from sites in medieval Rus' which were constructed largely in wood so have the advantage of dendrochronological dating. Examples of Golden Horde wares were found at most of these sites.

Mamlūk sites are the most severely affected by urban development, but it is to be hoped that the results from Şafad, Aleppo, Shayzar, Marqab, Işabl'Antār and others currently being investigated will eventually add more to proving or disproving many of the suggestions and ideas raised in the course of this study. The identification of many more fourteenth- and fifteenth-century vessels, principally jars and *albarelli*, in Western Mediterranean contexts is indicative of spice trade activity. The majority of these are of Mamlūk manufacture, so using this as a marker, I think it is safe to conclude that the Mamlūks would appear to have had a monopoly of this trade, thus supporting the textual evidence.

Translations of three words have proved to be problematical and may well have confused collectors over the years. These are *qāshānī*, *şīnī* and *lajvard* - I have suggested that the translation for *qāshānī* in all these texts should be amended to 'siliceous-paste wares'. It is a technical term derived from Kashan products, but does not necessarily imply that they were made there. As demonstrated in section 5.2 (page 194 onwards in this volume) on the medieval understanding of the technology, if the chroniclers could write about and demonstrate a full understanding of the physical make-up of these siliceous-paste bodies as early as the late tenth/early eleventh

centuries, they must have established a word for this type which would have been understood by their contemporaries. As the potters had all been conversant with the technology for several centuries *qāshānī* must have become as much a generic descriptive word as ‘china’ became in western literature. *Lajvard* on the contrary when it appears in fourteenth century texts should be interpreted as a colour and not necessarily a technique and can describe any pottery with blue predominating. Although Abū’l Qāsim does use the word *lajvardīna* as a technical term for enamelling.⁹³² *Ṣīnī* on the other hand should probably be understood as any type of imported ceramic vessel from the east, not just porcelains. Yet in certain general contexts can be seen as a generic for a fine ware whatever its provenance.

The fact Golden Horde artisans included Persian poetry on some of their vessels and copied some Persian metalware shapes indicates several possibilities: despite political animosity between the two courts they were culturally close; it was either Khwārazmian or Iranian potters, attracted by an open market in the early fourteenth century, who introduced the technology to their centres as they expanded; and/or the political chaos that ensued in Khurasan in the mid-fourteenth century created an impetus for skilled artisans to move to the new Volga centres where there were many more commissions and building projects. From a brief survey of building activity in Iran after the fall of the Īlkhānids in 1335 it would appear that it was only Yazd that was flourishing as a virtually independent entity. Although Tabriz could well have been a thriving city until its destruction at the end of the century by Mīrānshāh. We know too little about the Sabardārs in Khurasan, but they did acknowledge the Jochid ruler Tughāy Tīmūr on their coinage until 742/1342,⁹³³ inferring contact with the *ulus* Jochi, so perhaps this included technical cooperation too. Despite the open political

⁹³² Allan (1973), 115.

⁹³³ Melville (1997), 48.

contact between the Jochid and Mamlūk rulers there are few signs of this in their material cultural remains, with the exception of Mamlūk enamelled glass being imported.⁹³⁴ Examples were found in burials in the Kuban region, south-east of Azov and at Tsarevo or New Saray. There is also evidence of glass making at Tsarevo, so perhaps Mamlūk craftsmen assisted in establishing this industry.⁹³⁵ Certainly in the fourteenth century there are no imported siliceous-paste vessels in evidence, underlining the fact local production in both areas was sufficient and only specialised products such as Chinese wares were traded, with the exception of movement as personal effects or as containers of precious substances.

Shape is an important factor in differentiating these table wares. We will probably never be able to establish why the T-rim is restricted to the Īlkhānid world, or the rosewater bowl to the Golden Horde territories, but it is our good fortune that they were. Future work may well disprove some of the ideas in this study, and we can only look forward to more scientific facts to dispel the fiction that has arisen over the years.

⁹³⁴ Kramarovsky (2005), 92, cat nos 713, 719, 724, 725, 726.

⁹³⁵ *Ibid.*

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**FOURTEENTH CENTURY FINE GLAZED
WARES PRODUCED IN THE IRANIAN WORLD,¹
AND COMPARISONS WITH CONTEMPORARY
ONES FROM THE GOLDEN HORDE AND
MAMLŪK SYRIA/EGYPT**

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VOLUME 2

¹ This includes present-day Iraq.

CATALOGUE OF THE VARIOUS CATEGORIES OF FOURTEENTH CENTURY FINEWARES

(All dimensions and scales are metric and if none are given this means that time restrictions did not allow and it was not possible to acquire them later from the holding institution.)

INTRODUCTION

This is not a catalogue of dealer-derived objects now in museum collections, strict criteria have been applied for including each example. It is built around a corpus of fragments with a known provenance, be it from a specific site or a less precise location within a definite region. The aim is to demonstrate the variety to be found in each geographical area. These have been selected by several means: a) personal inspection; b) culled from survey and excavation reports; and c) acquired through internet contacts. Of course there is a random element to such a study, because there is seldom space in a publication to include every example; excavators will not have had the storage space to keep every pottery fragment, but will have selected all diagnostic ones; and foreign teams may have only been able to study representative samples they were able to export, and have been unable to return to all their finds for a variety of reasons.² Where it is deemed necessary to include a complete vessel to indicate a diagnostic shape or a variation in decorative motif, then an example of unknown provenance is included, and this fact always indicated. The divisions of types and decorative styles have been outlined in Volume 1, Chapter 5. If there is a dated example within a group, then this is included, whether it has a secure provenance or not. Many fragments have been lying in museum reserves for a considerable time, so this catalogue incorporates an element of ‘museum

² This is the current situation for the pottery finds from the Syrian-German excavations on the Aleppo citadel.

archaeology’,³ represents many hours of delving into reports and has been totally reliant on the good will of museum curators who have waited patiently while I have inspected, measured and in most instances photographed their priceless pieces. I am indebted to all of them.

The corpus begins with Īlkhānid examples, followed by those from Golden Horde sites and finally Mamlūk ones. We do not have many archaeological studies of production sites, but there is surface evidence of kiln furniture and wasters. However, wasters have their pitfalls, in that there is no doubt that many kiln mistakes were used as containers for something, judging by the number of misshapen vessels found well away from possible manufacturing centres, and as today would have been sold as ‘seconds’. Obviously there is a limit to their ‘usefulness’ and objects such as Catalogue number 2.4.6, with six bowls stuck together, present a good example of a useless waster and can be seen to indicate a production centre conclusively, which is indeed the case. There is disproportionately more information available for Golden Horde material culture; this is because Russian archaeologists have not had the constraints that Western archaeologists and nationals have encountered in Iran and other Middle Eastern countries. There is one important thread that cannot be ignored and that is the one common denominator that persists from the pre-Mongol period through to the fourteenth century, a technical uniformity of firing techniques throughout the Mediterranean world, the Middle East, Central Asia and the Volga region.⁴ Ceramic kilnologist Jacques Thiriot has firsthand experience in Syria from the kilns excavated at Bālis Meskeneh by the French team in 1973; Bernus-Taylor has yet to publish the pottery from their 1973 season, but Thiriot did include the technical information in his doctoral thesis, and

³ A phrase coined by Vorderstrasse (2009), 215.

⁴ Thiriot (2003b), information kindly supplied by Alastair Northedge, Paris.

this aspect will eventually appear in a publication.⁵ He indicated that the Bālis and Raqqa kilns went out of production with the 1259 Mongol devastations, but matching kiln techniques persisted and were in use at Saray/Selitryonnoye in the fourteenth century, as well as at numerous production centres in the Western Mediterranean and other Middle Eastern sites, a statement based on the material evidence available. Although the potters copied Chinese shapes and decorative styles, their kiln technology evolved independently.

Morgan⁶ and Watson⁷ both enlarged on Lane's and Reitlinger's tripartite divisions of Mongol pottery types and identified eight different categories of Mongol decorative techniques. Working on these eight, I have further refined them, but have excluded the lustre wares, as these have been discussed exhaustively by Watson⁸ and unlike the other decorative types are easily distinguishable from local products at Mamlūk sites and were not manufactured in the Golden Horde. Additionally, many of these so-called Kashan lustre wares have poetic Persian inscriptions indicating their provenance. Although such a criterion should be treated with caution in that some of the Golden Horde enamelled wares also carry Persian inscriptions.⁹ There was a well-established tradition of lustre wares in Greater Syria and Fuṣṭāṭ, but by the fourteenth century it was waning.¹⁰ There was no tradition of enamelled wares in the Mamlūk world.

⁵ Thiriot (2003b) unpublished PhD thesis, Aix-en-Provence; to be published as *Balis III, Les ateliers de potiers de Balis-Meskéné*, Damascus: institut français de Damas (forthcoming). Information supplied by Northedge in 2007 and updated by François 2011.

⁶ Morgan (2005).

⁷ Watson (2006).

⁸ Watson (1985).

⁹ See Catalogue number 2.7.3b.

¹⁰ For example there were only six fragments in the Mamlūk levels at the Damascus citadel –François (forthcoming), table 3.

1. Īlkhānid Products

1.1. Īlkhānid Coloured-ground Grey Relief

These were Lane's type 2 'Sultanabad' wares, the grisaille effect with a greyish slip, over which white slip-trailed designs were applied and outlined in black, named 'coloured-ground' by Morgan when discussing the Chinese influences on their decoration.¹¹ These are generally accepted to have been made in Kashan, yet there is no definitive proof as yet, and the name derives from their alleged find spot near the modern city of Sultanabad or Aragh.¹² There are several variations within this type, so I have divided them into: type 1.1 for the grey, white and black relief wares; and type 1.2 for the grey, white, black and blue variety, in the literature usually referred to as 'Bojnurd' or 'Juvayn' wares, dealer-derived names alluding to their provenance. Generally, type 1.1 has rounded, 'cotton boll' shaped leaves (number 1.1.1), a few have rounded trefoil leaves (number 1.1.2), as distinct from the pointed trefoil ones reminiscent of a duck's footprint, found in Mamlūk examples (types 3.1. and 3.2).

Every museum collection has several examples of type 1.1. Several of them were found in a hoard in the early 1900s, and brought to the market by Dikran Kelekian.¹³ Characteristically their decoration is slip-trailed in a thick white slip, which creates a relief effect, on a greyish slip and all the details are outlined in black. All these designs are executed principally on open forms, although there are several jars and *albarelli* in collections.¹⁴ Typically the open forms are decorated with humans, animals and birds in dense foliage. Their shapes are normally T-rim bowls or hemispherical, lotus ones. The exterior design usually consists of slip-trailed

¹¹ Morgan (1995), 19-43.

¹² Watson (2006), 338.

¹³ Kelekian (1910) – most of these pieces are now dispersed in collections and largely in the public domain.

¹⁴ Lane (1957), pl. 1; and Kelekian (1910), pl. 47 and 61.

arcades on the same greyish ground thought to imitate the lotus petals of Chinese celadon prototypes, which frequently look more architectural as for number 1.1.2. Both numbers 1.1.1 and 1.1.2 are from dealer-derived sources, but they illustrate this type of decoration well. The seated figure in the tondo has a Mongol headdress with owl feathers, but in this instance his outer robe does not fasten on the right side as is normal. The cavetto is decorated with a band of four lotus flowers in ogival foliated medallions alternating with flying gamebirds – all on a background of seemingly floating white leaves discreetly linked with fine black lines, and any gaps between these infilled with random squiggles in black.

The first two bowls appear to be in pristine condition, but closer inspection would probably reveal various mends and over-painting. As Morgan observed, the alkaline glazes on these vessels are highly unstable, iridize and frequently dissolve, leaving the slipped decoration fragile and distressed. Most of the following fragments demonstrate this. The body paste is white and sugary, certainly not as compact as the finest underglaze panel style (e.g. number 1.5. 3.1) examples, or even the polychrome coloured-ground type 1.3 ones. Archaeologically type 1.1 fragments are rare; I have located a few pieces from: the Īlkhānid kiosk at Bīsūtūn (numbers 1.1.3 and 1.1.4) in a fourteenth century context;¹⁵ a base fragment from Ānī in eastern Turkey (number 1.1.5); three from the German excavations at Takht-i Sulaymān, now housed in the Museum für Islamische Kunst, Berlin (Berlin Museum – numbers 1.1.6-1.1.8); a bowl base in the Williamson collection, Ashmolean Museum, Oxford (Ashmolean – number 1.1.9); and six examples from different surveys in Sīstān (numbers 1.1.10-1.1.12) – three from the French 1930s survey now housed in the Musée Guimet, Paris (Guimet Paris); one from Sir Aurel Stein’s 1920s

¹⁵ Luschey-Schmeisser (1996), 233, pl. 50.

surveys in the Helmand basin;¹⁶ one from Scerrato's IsMEO¹⁷ survey analysed by Mason;¹⁸ and one from the German surveys carried out between 1955 and 1973 on the Afghanistan side.¹⁹ There is one rarity - a single example (number 1.1.13) in the Ashmolean collection said to have been found in Fustāt. Mason states that the paste for Scerrato's example (number 1.1.11) has a chemical composition closely related to the so-called Syrian 'Tell Minis' wares, produced around three centuries prior, and is unrelated to different types tested in the IsMEO survey collection. To the eye the body paste for the three Takht-i Sulaymān fragments are much more friable and sugary, with airholes, than the many 'Tell Minis' examples that I have handled from the Aleppo citadel excavations, so although they may be chemically similar, the potting techniques are very different. Despite a distinct shortage of archaeologically sourced examples, this list reveals a wide distribution, as shown in Map 8, volume 1, page 37.

1.2. Īlkhānid Coloured-ground Grey Relief with Blue

There is an element of scepticism over the authenticity of these grey slip-painted wares, generally referred to as 'Bojnurd' or 'Juvayn' wares in the literature. However, there is evidence to refute this, as illustrated in the seven fragments that I have been able to locate to date. There are three amongst Reitlinger's Abū Sudayra material in the Ashmolean (number 1.2.2); and one in the Williamson material that was studied by Priestman and is now housed in stores at Durham University (number 1.2.3). According to Priestman this was from medieval Sīrjān.²⁰ Fu'ād Safar at Wāšit

¹⁶ Stein (1928), Plate CXVIII, KG 0143. Unfortunately this piece was not included in the fragments donated to the BM and its whereabouts is unknown.

¹⁷ Istituto Italiano per il Medio ed Estremo Oriente expedition under the direction of Umberto Scerrato, and included excavations at Shahr-i Soḡta.

¹⁸ Mason (1996), 47.

¹⁹ Fischer et al (1974-76), 148, fig 282a and b, from ruin #35 to the north of Kordu. Not illustrated in Catalogue as it is another black and white image of a fragment similar to # 1.1.11 and 12.

²⁰ I am grateful to Seth Priestman for clarifying its location by email on 15.7.2011.

found two fragments illustrated in his Figure 18, numbers 48 and 51.²¹ In the Takht-i Sulaymān sherd material in the Berlin Museum collection there is one distinctive closed-form body fragment (number 1.2.13) that belongs to this group. The glaze has been eroded, leaving a crudely painted grey ground on top of a white slip which covers a pinkish siliceous-paste body. The decoration appears to be an inscription highlighted with cobalt and turquoise dots in the manner of types 1.2 and 2.1. However, some of the detail is outlined in grey, not the usual black, so it is an oddity.

It is difficult to distinguish type 1.2 wares from Central Asian products. Medieval Khurasan did stretch to the Āmū Daryā or Oxus River, so it is likely that there were other production centres turning out similar models, hence the confusion. Number 1.2.11 has been included to demonstrate the slip-trailing method used to create the relief. This has lost all of its glaze and other additional colours, but the slip relief is still adhering well on both sides of the fragment.

The key to other production centres can possibly be found in Turkmenistan - the modern border lies just to the north of Bojnurd, and many type 1.2 wares have been excavated there, which appear to be closely affiliated.²² What is certain is that they were not produced in the Golden Horde territories. At a conference held in Kazan in May 2006, I included an image of this ware, to see if any of the archaeologists in the audience had encountered such bowls and everyone said categorically that while there were similarities, they were neither Volga nor Khwārazm products and suggested Turkmenistan. Unfortunately I have only been able to find a line drawing of several examples from Turkmen excavations (number 1.2.4), although two bowls (numbers 1.2.5 and 1.2.6) in the State Museum of

²¹ Safar (1945), fig. 18.

²² Masson (1974), 102.

Timurid History, Tashkent (Timurid Museum), probably fit into this category; they are a much darker grey than their Golden Horde counterparts and their decorative detail is closer to type 1.2, with cursive stippling and squiggles in black on the grey ground which act as fillers between the white slip-trailed major motifs.

Unfortunately the British excavations at Merv have yet to investigate fourteenth century levels.²³ Number 1.2.6 was excavated in Samarqand and given a fourteenth century date.²⁴

The Iranian dealers in London are adamant that there was a production centre in Isfarā'īn, and according to Mahboubian the Nishapur potters moved there after the destruction that devastated the city during the Mongol invasions.²⁵ Whereas ICHTO's archaeological team report that the fourteenth century levels are located under the present-day city in the vicinity of the Friday mosque, and the industrial workshops would have been on the edge of this settlement.²⁶ The most common form for these vessels is the lotus bowl, with slip-trailed arcading on the exterior. The interiors are decorated with scrolling foliage, with distinctive attenuated trifoliate leaves; the space is either divided into panels, or has circular epigraphic bands, usually with a repeated *iqbāl* ('prosperity'), or has flying birds or prancing animals amongst the foliage. Sometimes the foliage is reduced to floating leaves and lotuses. Some have turquoise dots as well as cobalt blue ones. There is one closed form in the Fitzwilliam Museum, Cambridge (Fitzwilliam C.505-1991 – number 1.2.8) decorated with three standing bustards and a hare encircling the bulbous body; bustards are large game birds commonly found in the Juvayn/Isfarā'īn area, and

²³ I discussed this with Dave Gilbert in 2008, who is studying the Islamic pottery under the directorship of Tim Williams, Institute of Archaeology, UCL. In May 2011 Williams confirmed by email that this is still the case.

²⁴ Sumner and Petherbridge (2004), 122.

²⁵ Mahboubian (1971), 6.

²⁶ Discussions held in Mashhad in September 2003, see Chapter 3, section 3.13.7..

would have been hunted and eaten by the Mongols,²⁷ as well as by nineteenth century travellers such as Sir Percy Sykes who reported them.²⁸

A sub-group can be identified in two bowls with tear-like motifs in bands encircling the bowl – there is a well potted, but roughly decorated, fine siliceous-paste example in the Fitzwilliam (number 1.2.9 - C.5-2003), which was originally labelled as “Golden Horde”, and now has a provenance on the website as “Syria or Iran”; in Bīrjand Museum’s storage, in south-eastern Khurasan, I found a glazed earthenware copy, with the slip flaking off. The Fitzwilliam website suggests that these tear-like motifs maybe stylised fish, emulating number 1.2.7’s design, an idea supported by Koval²⁹ and Bochorov.³⁰ Unfortunately the Bīrjand bowl has no provenance, but unlike other Iranian museums, most of their collection is from local finds and most vessels studied did. In Khurasan’s ICHTO pottery storage in the Robāṭ-i Ṭorāq, the last *barīd* or medieval post stop from Nishapur to Mashhad, now on the outskirts of the city, I found another provincial glazed earthenware bowl with a similar design on a grey slip with turquoise on white tear motifs. This was found with some underglaze-painted geometric wares (type 1.6) which will be discussed below. It was a chance find when villagers were excavating a deep pit to install a cesspit in Enqelāb village, Juvayn district.

One group that appears to be conveniently ignored is those with a few blue dots on an otherwise type 1.1 example, and I would propose that these should be included in this category, see number 1.2.7. The glaze is glassy and stable unlike that on most type 1.1 pots; I suspect that analysis would show that a little lead had been

²⁷ Lane (2006), 176.

²⁸ Wynn (2003), 180-181.

²⁹ Koval (2006), 175.

³⁰ Bocharov et al (2012) paper entitled “The white clay pottery in the Western regions of the Golden Horde,” given on 26 October 2012 to the 10th International Congress on Medieval Pottery in the Mediterranean, Silves, Portugal.

added to it. The fish motif is taken directly from inlaid metalwork and occurs in both Īlkhānid and Mamlūk products.³¹ Without any scientific proof I would propose that these were made in another centre. They are not as finely potted as the type 1.1 wares.

1.3. Īlkhānid Polychrome Coloured-ground

These are what Morgan styles ‘Aragh’ wares³² and Watson the second type of ‘Sultanabad,’ decorated in cobalt and black on a whitish ground.³³ In this group the slip-trailing is to the minimum and the decorated surface is generally flat, the characteristic relief has largely disappeared. Although the large T-rim bowl in the BM (1928 1-21.1) is the exception to this rule and the interior with its portrayals of seated Mongol and Persian figures are in high relief, as is the inscription encircling the exterior just below the rim.³⁴ Unfortunately the glaze is too iridized to be able to read the inscription. The shapes remain the same and there are many more closed forms, principally *albarelli* or medicine jars, with their distinctive waists and bulbous bulges above their foot rings. The palette is cobalt and turquoise on white (sometimes verging on grey), with the details outlined in black. Unlike the Mamlūk version there is no red slipped detailing. Two *albarelli* in London (numbers 1.3.1 and 1.3.2) museums, of unknown provenance, illustrate this point well. They are decorated with bands of dense foliage and a series of ogival roundels framing lotus leaves. The cobalt is not stable and has bled under the transparent glaze. The bulbous lower part has a series of small black dots on a white ground, which are superimposed by larger cobalt ones which have bled and at first glance give a diagonal striped effect – the polychrome ‘dot and dash’ motif listed as type **1k** in

³¹ Baer (1968), 14-27.

³² Morgan (2005), 21.

³³ Watson (2006), 338.

³⁴ Pope (1938), pl. 777A.

Appendix A. This is a common exterior decoration for this group as well as a filler in interlace designs.³⁵ Human and animal figures are not usually found on *albarelli*, but are ubiquitous on the open bowls.

Archaeologically sourced examples are sparse, and I have included a base fragment from the Louvre (number 1.3.3), acquired from Charles Kiefer, who carried out a series of analyses on this collection that he had acquired from numerous sites over the years.³⁶ Unfortunately this particular fragment was not included in his article and there is no record where it is from. Note the mounted Mongol in the tondo with his owl feather headdress, and the polychrome dot and dash design on the exterior. In the Takht-i Sulaymān sherd collection in the Berlin Museum, there are two examples: numbers 1.3.4 and 1.3.5. Fragment number 1.3.4 is the carination of a T-rim bowl – the exterior has typical arcading in relief below an inscription band, also in relief, executed in white, outlined in black and on a blue ground.³⁷ The interior has a flat polychrome design of foliage, and appears to represent a transition between the relief wares and the flatter polychrome examples. The small base fragment number 1.3.5 has no sign of slip relief at all.

Other varieties in this category and for which I have been unable to find any archaeological specimens are the figural panel style as in number 1.3.6, a very finely potted lobed bowl in the V&A collection with seated Mongols in the tondo and the cavetto has vertical panels on both the interior and exterior. The other kind is the geometric design still retaining the foliage, but without humans or animals, as in number 1.3.7. Both incorporate all the typical motifs such as the polychrome dot and dash, the foliage and lotuses in interlace designs that herald the geometric and panel designs in other underglaze-painted types. There is one base fragment recorded from

³⁵ Appendix A – Īlkhānīd design motifs no 1k – polychrome dot and dash.

³⁶ Kiefer (1985), 365-378.

³⁷ *Ibid.*

a group of kilns on the Darb-i Zanjīr in Kashan by Bahrami.³⁸ He dated all the kilns ‘excavated’ to the thirteenth century by the shape of their bricks. It is not clear how he reached this theory.

The Stein material from Sīstān revealed one tiny rim fragment from the site known as Burg-i Afghan, which is now housed in the British Museum stores (number 1.3.9a/b).³⁹ This is extremely finely potted, with a compact body of superior quality to the coloured-ground grey wares (type 1.1) handled. Perhaps it has the same body as Catalogue number 1.1.11, which Mason equated with a so-called ‘Tell Minis’ body.⁴⁰

There is one oddity in this group, with markedly different decoration, yet it has the diagnostic Iranian T-rim and the relief-arcaded decoration on the exterior with an inscription just below the rim, giving a date of 716/1316.⁴¹ The full inscription remains unpublished. Morgan suggests that these wares are early fourteenth century, so this supports his dating.⁴²

1.4. Īlkhānid Black under Transparent Turquoise Glaze

Turquoise alkaline glazes have a long history in Iran stretching back to the Sasanians, and under the Īlkhānids they were the most popular covering for both the finewares and glazed earthenwares. There is no written indication that it was a culturally significant colour and I rather suspect there was an economic factor involved, it being one of the cheapest glazes to produce. Iranian archaeologists

³⁸ Bahrami (1938), 224, fig 140.

³⁹ Stein (1928), 937. Now in the Chinese section (CP4, drawer 26) and not in the Islamic section of the basement store. All the pieces he donated to the BM are marked with an asterisk in his list of objects recorded in the 1928 publication.

⁴⁰ See pages 6 and 69 in this volume.

⁴¹ Fehérvári (2000), 220, #283; if it were possible to handle this piece I would possibly recategorise it as type 1.2 – the clearest clue is the repeat quatrefoil design in the band that encircles the tondo and within four quatrefoil panels on the cavetto, which is found in number 1.3.8a on the neck of the jug. It is impossible to see the colour in the published image; email contact to request a digital image has been fruitless.

⁴² Morgan (1995), 19.

interviewed in Zanjān ICHTO stated that they could always identify an Īlkhānid site by the sherd scatter of bright, shining turquoise and black fragments.⁴³ A quick survey of museum collections endorses this (see number 1.4.1) and you will find a wide variety of shapes and sizes, with the T-rim and baluster vases being the most widely found. There are a few small *albarelli*, but none of the large ones found in polychrome coloured-ground wares (numbers 1.3.1 and 1.3.2). The T-rim, as stated in Chapter 5, section 5.5.1, was in use for around two hundred years, and had vanished by the fifteenth century. The V&A's T-rim bowl (number 1.3.5 - Circ. 350-1929) dated *rabī* ' I 676/August 1277 gives an indication as to when this turquoise and black style was in use from. While its internal decoration is not so typical, with its free-flowing inscription amidst scrolling foliage, the foliage is similar to that on number 1.4.4 (V&A inv no 41.1908) and the exterior decoration of double vertical lines is the same as on number 1.4.3 (V&A inv no C.59.1941), and many others. The interlace decoration on the interior of number 1.4.3 is found on Mamlūk vessels, but the infill is usually crosshatching and not this fine zigzag motif.

In the Takht-i Sulaymān boxes inspected in the Berlin Museum, box 146 (number 1.4.6) had 46 examples, with a proportion of one third to two thirds closed forms to open ones. There are only minor traces of iridescence on these fragments, and the black designs show clearly through the bright turquoise glazes, despite many crazed examples. The flat T-rims are decorated variously, with plain bands, a repeated 'S' pattern (a stylised guilloche) framed by thick black lines (number 1.4.7), or with swimming fish in place of the 'S's (number 1.4.8). The same fish on the exterior of the closed form number 1.4.9 is a variation on the theme. The fine zigzag

⁴³ September 2003.

fillers (**1q**) inside leaves,⁴⁴ medallions and panels are regular features, as are peacocks' eyes (**1p** and **1r**),⁴⁵ and black blobs with lots of little legs, resembling a coiled millipede, such as number 1.4.11. Or, a variation on that theme is a 'flying hairy object' encircled by tiny hairs (**1o**), as on number 1.4.13.⁴⁶ There are some bowls with figural decoration, such as the birds on the interior of number 1.4.13 (Ashmolean, inv no 1978.1632).

As already stated by ICHTO archaeologists in Zanjān, turquoise and black wares are useful markers for Īlkhānid sites. At the sites surveyed by Reitlinger during the Oxford and Chicago 1930-31 Kish season (see Chapter 3.17.2), along a canal known as the Shaṭṭ al-Nīl, which linked the Euphrates near Babylon to the Tigris near Na'umaniyya in present day Iraq, the underglaze-painted blue, black and white wares Reitlinger interpreted as being more Mamlūk inspired or indeed Mamlūk (see no 1.5.1. 2), but the turquoise and black material in the sherd collection is definitely from the Iranian world (see number 1.4.15a/b). The same goes for other sites such as Wāṣit,⁴⁷ although no examples were published in the Nippur finds.⁴⁸ Local production influenced by their western neighbours should not be ruled out, but there are many Iranian influences too, which emphasises the difficulties in distinguishing between these decorative motifs and how shape becomes an important diagnostic in differentiating.

On a visit to Sulṭāniyya in 1931 Reitlinger and Talbot Rice collected samples of a sub-group of turquoise and black wares which they believed to have been manufactured in an area to the south-west of the tomb (see Fig. 3.32) and palace

⁴⁴ See Appendix A.1q.

⁴⁵ *Ibid.*, **1p** and **1r**.

⁴⁶ *Ibid.*, **1o**.

⁴⁷ Safar (1945), fig. 18 # 58.

⁴⁸ Gibson, Armstrong and McMahon (1998).

complex, and reported evidence of kiln furniture too.⁴⁹ Several pieces are available for study, divided between the Ashmolean, V&A and the Talbot Rice collection in Gloucestershire. As their body paste is a calcareous clay one, these are discussed below as type 1.15 following the Sultāniyya blue on white examples, type 1.14.

Further proof for this decorative style belonging to the Īlkhānid world is a Persian inscription that encircles the exterior of number 1.4.24. Not only is it an example of the diagnostic T-rim, the well executed *naskhi* inscription is a couplet, part of a verse from a *qasidah* by Sanā'ī, a twelfth century Ṣūfī poet highly regarded in the fourteenth century. The inscription reads:

*“You would find the hair of young brides as if they were leaves of narcissus
You would see king's complexion like that of saffron twigs*
Cut out greed and [lust and*] hatred so that from then on..”*⁵⁰

Unfortunately the bowl has several mends so the inscription is incomplete. Manijeh Bayani also commented that at some stage an attempt had been made to erase the word 'lust'! While it is not dated, its importance lies in the fact it is the first example with this style of decoration known to me with a Persian inscription – there are others in different decorative styles, for example Catalogue numbers 1.5.1.5; 1.6.8; 1.9.1; 1.10.1; 1.10.2; and 1.11.6, see in the relevant sections below.

Unlike glass, there was no recyclable value in siliceous-paste wares, however potters making large, porous water storage jars decorated with applied and incised designs sometimes added small pieces of glazed turquoise and black wares, rather like mosaic tesserae, and incorporated them into the decorative programme. These large jars were essential pieces of equipment for households, mosques, institutions

⁴⁹ Talbot Rice (1932).

⁵⁰ Kindly read by Manijeh Bayani, 28.5.2012, who added these comments: “* In the original, it says ‘colour’ of saffron. * The word for lust seems to have been purposely not written or defaced (the section where there is no blue glaze). What is there cannot be read.”

and public spaces for providing cool water during the long hot summers, and there would have been a constant demand for them from the workshops. It is quite likely that they were produced in tandem. See Catalogue number 1.4.19, found in the Tūs excavations and number 1.4.20 for a fragmentary detail.

In the Berlin Museum there is a T-rim fragment with a slipped-relief inscription band on a black ground on its exterior (see number 1.4.21). The transparent turquoise glaze has almost worn off over the inscription, so the white slip shows through giving an impression of a third colour.

One further diagnostic shape that was in circulation in the pre-Mongol period is the so-called ‘posset-pot’. Typically these have fine spouts which would appear to be more ornamental than utilitarian.⁵¹ However, the shape continued, without the spout, into the Īlkhānid period in black under a turquoise glaze, see the Louvre example illustrated in number 1.4.22. Another one in the MIA Cairo collection has been published as pre-Mongol, but on the basis of its decoration it should be changed to late thirteenth/early fourteenth century.⁵² In the excavated Takht-i Sulaymān collection studied in the Berlin Museum, box TS 149 has part of a handle, with a similar head – see number 1.4.23 – providing further proof for an early fourteenth century dating.

1.5. Īlkhānid Underglaze-painted Panel

This is a difficult category to identify in that they were widely copied in the Mamlūk world and there are many variations on the theme. These are the underglaze-painted cobalt and black (frequently turquoise too) designs applied directly on to fine, white siliceous-paste bodies. The designs usually radiate from the centre of the bowl in

⁵¹ Lane (1947), pl 70A for a *mīnā`ī* example in the BM collection; Watson (1985), 68, 80, pl 42 for V&A inv no C.362-1918, lustre example.

⁵² O’Kane (2006), 268-9, cat # 228, inv no CM 275.

open forms, with vertical panels on closed forms, and generally alternate within a limited repertoire. Cobalt can be quite unstable once the alkaline glazes have degraded and worn away and it turns a greeny-black and sometimes a pale yellow, see number 1.5.1.1.

Despite a seeming abundance of these wares in museum collections, the archaeological material is rather sparse. In trying to identify characteristics and diagnostics, I have subdivided this type into three categories by decoration:

1. black ogival foliated panels with the designs scratched into black bands revealing the white body – a *sgraffito* technique, a practice frequently used in lustre designs (type 1.5.1);
2. radial panels with an interlacing central design (type 1.5.2);
3. plain radial panels forming wedges that divide the circular space rather like cake slices (type 1.5.3).

Type 1.5.1 - Foliated Panels

Typically this category has polychrome floral designs within the foliated panels, which links this together with type 1.3. Indeed, an example in the Keir collection⁵³ has a rabbit in the centre amongst typical polychrome coloured-ground foliage. The exterior designs for this type are also distinctive, with a series of panels divided by thin, double vertical cobalt lines below horizontal black bands; in between the vertical cobalt lines are squiggles forming circles and dots as though imitating a metalwork design, rather like the top band of the stem-cup, number 1.5.1.8.⁵⁴ A bowl from the HS Reitlinger collection illustrates this type (number 1.5.1.3)⁵⁵ and a full section of a small bowl handled on a site visit in 2003 (number 1.5.1.4) to Sulṭāniyya gives an excavated example. While it had not been excavated stratigraphically,

⁵³ First published in Pinder Wilson (1969), fig. 172.

⁵⁴ Appendix A, 1m.

⁵⁵ Sotheby's (1986), 44, lot 151.

according to the archaeologists it is safe to say that it came from an Īlkhānid context. The Reitlinger bowl's sale catalogue entry was "A Mamluk underglaze-painted pottery bowl" for no apparent reason.⁵⁶ Further proof of a Persian origin for this type of ware is a Persian verse around the exterior rim of a bowl in the Ashmolean collection (number 1.5.1.5), which reads:

*"I saw the flower sitting on the side of the meadow,
Having its vest..[illegible]...skirt
It was saying, as the early morning breeze blew I took your beauty,
[And a voice] rose from the house: "I [am] Jalal...the painter." ”⁵⁷*

While the next example, the decagonal stem-cup in the V&A collection (C.750-1909; number 1.5.1.6) lacks the ogival panels, it has the same scratched, *sgraffito* design on a thick black band in alternate panels, and the same exterior design. It also has a provenance in Iran, albeit somewhat vague, indicating that it came from a "ruin site near Sultanabad/now known as Aragh."⁵⁸ On the other hand a stem-cup in the BM collection, which was included in the Freer Gallery's Mamlūk exhibition in 1981,⁵⁹ has been considered Mamlūk because it was purchased in Damascus. Given its similarities with other vessels in this group, I think it should be reassigned to Iran. A highly iridized T-rim example in the Freer Gallery with the same interior and exterior decoration adds further support to this argument, in that the T-rim is a diagnostic Iranian shape (inv no 1907-103; number 1.5.1.7) and was not imitated by either the Mamlūk or Golden Horde potters. It has no provenance, and was a gift of the gallery's founder.

Type 1.5.2 - Cobalt Interlace in the Tondo

Most museum collections have examples of these panel style bowls with intricate cobalt interlace patterns in the tondo, as in number 1.5.2.1. The cavetto has a series

⁵⁶ *Ibid.*

⁵⁷ Kindly read by Manijeh Bayani. She suggests it may be by Rumi or in the style of Rumi.

⁵⁸ See catalogue entry on website: <http://collections.vam.ac.uk/item/O209526/bowl/>.

⁵⁹ Atıl (1981), 168, cat # 77. This is BM 1928 7-21 15, a gift of H. van den Bergh (d 1937) in 1928.

of alternating panels and the broad flat rim with a repeated panel motif of double cobalt lines framing black squiggles imitates metalwork. The exterior decoration is a series of alternating vertical double stripes of cobalt and manganese black, which sometimes discolours to a greeny-black. The Reitlinger example now in the Ashmolean is on record as having been found inside a sealed sand-filled jar, which accounts for its all but perfect state. Several such hoard finds have been reported from Iran.⁶⁰ It is known that fine Chinese ceramics were transported overland from China in containers filled with a mixture of sand, earth, soya bean and wheat, sprinkled with water to set hard and then be wetted again when they had safely reached their destination was common practice too,⁶¹ so this find is perfectly plausible and was probably the mode of transport for these wares within Iran. The BM's example was said to have been found near Tehran.⁶² Although the archaeological record is slim, I did find one example in the Berlin Museum's Takht-i Sulaymān collection, which probably came from the early fourteenth century occupational levels reported on by Annagret Nippa.⁶³ There is also a coarser, more provincial copy in the foreground of Reitlinger's Kish box (number 1.5.1.2).

Type 1.5.3 - Radial Patterns

These are the simple radial patterned vessels, with intersecting alternating patterns in wedges, rather like cake slices. They use the same palette of cobalt blue and black on white, and frequently turquoise too. The motifs are interlace knot patterns, pseudo-epigraphy, clusters of three or four black dots on white, scrolling foliage with half palmettes and plain-coloured dividing lines. There are many more open forms, with

⁶⁰ Rosser-Owen (2004), 88-89.

⁶¹ Carswell (1999-2000), 20; idem (2000), 76.

⁶² Hobson (1932), 56, fig 71.

⁶³ Nippa (nd), 1. There are no precise records for this sherd collection, other than they represent a study collection of the excavated material during the 1973 and 1974 seasons, and are definitely post-Abāqā.

hemispherical lotus bowls and T-rim bowls being the most common; for closed forms there are chicken-headed ewers and bulbous jars. Some of the lotus bowls are extremely finely potted, whereas others are much cruder, so either the latter were made in different workshops; provincial copies; or cheaper versions produced in the same workshops.

The lotus bowl number 1.5.3.1 has a characteristic little nipple inside a straight high foot. It is unfortunate that it has no provenance, other than it was bought in 1925 from an Iranian London dealer. However this shape and design can be attested archaeologically, in various conditions,⁶⁴ and numbers 1.5.3.4 to 1.5.3.6 have the same decorative motifs. The chicken-header ewer (number 1.5.3.2) and the globular jar (number 1.5.3.3) likewise have no provenance, but I have included them as examples of the various shapes decorated in this manner.

Catalogue numbers 1.5.3.4 through 1.5.3.6 are all archaeologically attested at Takht-i Sulaymān, as are a couple of rather inferior base fragments from Williamson's Tepeh Dasht-i Deh material. It is not clear whether the latter two are surface finds from his initial survey, or finds from his excavations there. He did confirm in his brief report that this was largely a fourteenth century site.⁶⁵ To complement these finds, the German team at Bīsītūn excavated a rim fragment in a fourteenth century context in the Mongol building there.⁶⁶ Catalogue number 1.5.3.9 is a finely potted T-rim bowl which Peter Willey acquired from the Ismā'īlī castle site of Ayīz, Khurasan. Again inside the foot you find a slight nipple, a diagnostic feature for both the fine lotus and T-rim bowls.⁶⁷

⁶⁴ *Ibid.*, fig. 1/3 and 4. MAO 831 in the Louvre collection is another good example.

⁶⁵ Williamson (1972 a and b).

⁶⁶ Luschey-Schmeisser (1996), 232, fig 12.

⁶⁷ Lane (1957), 11 – describes it as “...at the bottom they run to a point which appears on the reverse as a raised cone inside the foot-ring.” Frequently this feature is not obvious in the tondo and is only apparent when you turn the vessel over.

Unlike the Mamlūk world, there are few *albarelli* with this category of decoration. An example in the Fitzwilliam (number 1.5.3.10) collection is verging on a Mamlūk shape, yet the lower body is more curvaceous than those encountered in Syria/Egypt. There is a similar example published by a German team from their finds at Baṣṭām,⁶⁸ north-west Iran, near the border with Turkey, and Ḥussein al-Shammri excavated one at Ṣukhayr, about 13km to the south of Baghdād, in an Īlkhānid level in 1977 with a distinctly Mamlūk shape.⁶⁹

Catalogue number 1.5.3.11 from the Metropolitan Museum of Art, New York (MMA) (Rogers Fund 10.44.5) is included here, despite the fact it is registered as ‘Syrian’. It has the identical form to number 1.5.3.1 and MMA inventory number 20.120.204 (diameter 20.4cm; height 10.2cm)⁷⁰ – the only difference being the treatment of the exterior lotus petals. Number 1.5.3.11 has no vertical black lines with dots. To add to the argument in favour of an Īlkhānid provenance, Jenkins had it tested alongside her Mamlūk cohort and found it to be markedly different to the others, yet had an exact match with another bowl in the MMA collection recognised as being Īlkhānid.⁷¹ Irritatingly she does not give its inventory number, referring the reader to an obscure publication by Dimand which is seemingly unavailable.⁷² I suspect she is referring to inventory number 20.120.204, which I have handled - it had been tested too.

1.6. Īlkhānid Underglaze-painted Geometric

This is probably the most controversial form of decoration when it comes to differentiating between the three geographical areas under discussion. A problem

⁶⁸ Strauss (1979), pl. 72.13.

⁶⁹ Al-Shammri (1986), vol. 2, 470, fig 22e, plate XLVIII.

⁷⁰ See:

<http://www.metmuseum.org/search/iquery.asp?command=text&datascope=all&attr1=20.120.204&c=&x=0&y=0>.

⁷¹ Jenkins (1984), 104.

⁷² *Ibid.*, 113, footnote 13; Dimand (1936), fig 14.

largely compounded by the dealers in the past and already discussed in Chapter 5. Many of these have a six-pointed star in the tondo, a convenient way to divide the space and possibly a talismanic symbol.⁷³ What is quite remarkable is the fact that despite a considerable number of examples in Western collections, there are few fragments of these geometric wares in sherd collections from surveys or excavations. Those that I was able to locate are restricted to eastern Iran, for example two fragments from the Mongol levels at Tureng Tepeh, about 20km north-east of Gorgān, Gūlistān.⁷⁴ The Iranian curators and archaeologists that I interviewed are all adamant that they were produced in the Juvayn area and that there is evidence at Isfarā'īn, near the so-called Shahr-i Bilqīs, for pottery workshops. This is a site that I was unable to visit in 2003, but would like to survey in the future.

The bowls, numbers 1.6.1, 1.6.2 and 1.6.3, are all examples of this category and there are several more in museum and private collections, some of which have been published; I have handled all these and consider them to belong to this Iranian group:

1. Cairo MIA 15986 – ex 'Alī Pasha Ībrahīm collection, acquired in 1949 - diameter 30.7 cm; height 7.5 cm; foot diameter 9.6 cm. Exterior decoration is a cobalt blue cloud-scroll motif.⁷⁵
2. Cairo MIA 16241 – ex 'Alī Pasha Ībrahīm collection, acquired in 1949 – diameter 24.9 cm; height 11.3 cm; foot diameter 7.8 cm.⁷⁶ Exterior decoration is black cloud-scroll motif with the occasional 'S'. Glaze cracked.

⁷³ Ittig (1982), 86.

⁷⁴ Gardin (1987), plate 154, c and d from sondage E, Mongol level VIII.

⁷⁵ Atil (1981), 158, #70.

⁷⁶ My thanks to Dr Farouq Askar who kindly permitted me to handle, photograph and draw these two bowls.

3. LACMA 2002.1.54 – formerly in the Madina collection C26 – diameter 24.1 cm; height 6.3 cm.⁷⁷ Having been published as Mamlūk, Madina now agrees with this Iranian provenance too.⁷⁸
4. Keir collection C26⁷⁹ – the exterior cloud-scroll motif is in cobalt blue. Was said to have come from Iran by the vendor. Diameter 31cm; height 8 cm.
5. Ashmolean 1978.1600 – formerly in G Reitlinger’s collection - diameter 26.7 cm; height 10.4 cm.⁸⁰ Bought from Beghian in 1936. GR styled it as a ‘Vāramīn’ bowl on his registration card.
6. Ashmolean 1978.1656 – formerly in G Reitlinger’s collection – diameter 17.5 cm; height 8.6 cm.⁸¹ Bought at the Edward Kurk sale, Sotheby’s 1944. Noted condition was perfect and perhaps found in a sealed jar. The only one of this group to have an exterior decoration of black vertical lines spaced around the bowl.
7. Fitzwilliam C.470-1991 – formerly in HS Reitlinger’s collection – a cruder version divided into six panels three of which have the same pseudo epigraphic motif.⁸² Diameter 27.4 cm; height 10.7 cm; diameter foot 8.1 cm.
8. A bowl sold at Sotheby’s London 10 October 1982⁸³ and Christie’s 15-17 October 1996⁸⁴ – diameter 32.5 cm. The original vendor had imported it from Iran and believed it to have come from the Nishapur region.⁸⁵
9. Fitzwilliam C.427-1991 – formerly in HS Reitlinger’s collection – exterior cloud-scroll motif in cobalt blue; the tondo motif is a six-petal flower, not

⁷⁷ *Ibid.*, 159, # 71.

⁷⁸ Conversation in November 1999.

⁷⁹ Watson (1988), 162-63.

⁸⁰ Allan (1981), 115, # 325.

⁸¹ *Ibid.*, 115, # 327.

⁸² Sotheby’s (1986), 44-45, lot 154.

⁸³ Sotheby’s (1982), 79, lot 62.

⁸⁴ Christie’s (1996), 139, lot 320.

⁸⁵ See Chapter 1, section 1.1.

geometric. This was entered as “Mamlūk” in the sale catalogue.⁸⁶ Diameter 21.8 cm; height 10.4 cm; diameter foot 6.6 cm.

10. BM 1956 3-301 – according to the register this was acquired in Syria and donated by a Mrs Eileen Bond. A typical cloud-scroll exterior motif indicates an Iranian provenance. Diameter 22 cms; height 9.5 cm.

11. Khalili pot 460 - a six-pointed star in the tondo is a rather cruder version, with thin, plain black vertical lines on the exterior between horizontal ones at top and bottom – diameter 25.5 cm; height 11.5 cm; diameter of base 7.2 cm.

If there is no footnote, then the object remains unpublished. To add to the provenance confusion for this type of decoration, Michael Rogers told me that Gerald Reitlinger had told him they came from Sīstān, although there is no record of this on Reitlinger’s record cards. In the Musée Guimet, Paris (Guimet Paris) there are a couple of fragments amongst the French survey material which are certainly related to this group, with their exterior ‘S’ motif designs, yet the fine black lines and solid black leaves in the panels link them to the Golden Horde geometric ones (see numbers 1.6.6a-b and 1.6.7a-b). All this surely indicates a variety of workshops and various design influences percolating through contacts with the different centres, be it through the movement of objects or the potters themselves.

Lastly, the MMA bowl dated 779/1377 (number 1.6.8) perhaps gives an end-date to this group. It shares the same shape as numbers 1.6.2 and 1.6.3, but its exterior decoration is just three plain horizontal bands. Although the decoration is rather sketchy, there is no longer a desire to fill every space as in type 1.11 wares to be discussed below. This gives room in the tondo to inscribe cursive enigmatic

⁸⁶ Sotheby’s (1986), 44-45, lot 152.

thoughts and dates. The Persian inscription in the tondo reads: ‘As long as the soup is good, do not worry if the bowl is pretty.’

1.7. *Īlkhānid Underglaze-painted Striped*

Amongst the Takht-i Sulaymān sherd collection in the Berlin Museum there is a series of underglaze-painted cobalt striped vessels, which are generally referred to as being thirteenth century in the literature. However, these were with other Īlkhānid fragments in a post-Abāqā deposit,⁸⁷ judged to be early fourteenth century, indicating this style continued. The small *albarello*, number 1.7.1, does not conform to any of the diagnostic shapes, but it certainly shares the same decoration. The carinated, biconical bowl, number 1.7.2, is labelled as fourteenth century and is on display in the Berlin Museum –it is a rare example of a typical thirteenth century shape modelled on metal prototypes.⁸⁸ Although the decoration is simple, the potting is accomplished. You will note that they all share the same accession number, and have no excavation number assigned to them.

There are images of both sides of rim sherd number 1.7.7 in order to demonstrate the mechanics of the applied spout, reminiscent of those on the Golden Horde so-called ‘rosewater bowls’. The spout is connected to the interior, but the hole is too small to have been of any practical use, as unlike the Golden Horde examples when the spout was applied there was no attempt to enlarge the hole.

1.8. *Īlkhānid Imitation Celadon*

Most museums have examples of imitation celadon vessels from the Middle East, but as they copy the originals closely it is impossible to establish where they were made unless the potter incorporated a diagnostic shape into his repertoire. Enormous

⁸⁷ Nippa (nd), pl 1, #6.

⁸⁸ Jenkins (2006), 182, fig 6.4 – “a brass biconical bowl inlaid with silver. Iran (?), first half of 13th century. Museo Civico Medievale, Bologna (2128).”

quantities were excavated in Fustāt,⁸⁹ and there are considerable numbers being processed on the Aleppo citadel, but the evidence is slim for Iran. However, in the pursuit of a little ‘museum archaeology’ I found representative examples from Takht-i Sulaymān in both Tehran and Berlin, which are included here. In the Berlin collection there are eight Chinese Longquan celadon fragments preserved too. Several imitation pieces have moulded or slip-trailed inscriptions, with formulaic benedictory invocations in Arabic: those on number 1.8.4 read “Triumphant (?)/Prosperity/Long life to its owner”;⁹⁰ and the inscription on number 1.8.5 is indecipherable. However, the latter fragments are key pieces diagnostically, for they were once part of a fine T-rim bowl, indicative of local production. Whether they were manufactured in situ at Takht-i Sulaymān or not is unknown. Williamson excavated a fluted T-rim example at Dasht-i Deh in Kirmān province in a fourteenth century context – see Chapter 3, section 3.12.1.⁹¹

There is one dated example, a T-rim bowl published by Kelekian with a damaged Arabic inscription in relief on the exterior, in the manner of that on Catalogue number 1.8.5, and a *hijra* date of 677/1277-78 preserved.⁹² He does not give any more details, other than it was from Sultanabad, and the whereabouts of this piece now is unknown.

1.9. *Īlkhānid* Lajvardīna

Lajvardīna, the Persian word for lapis lazuli, is an enamelling technique, similar to the earlier so-called *mīnā’ī* or *haft rangi* (seven-colour) decorative method popular in the late twelfth to early thirteenth centuries. It was a more luxurious ware than

⁸⁹ Scanlon (1971a).

⁹⁰ Read by Manijeh Bayani, 22.7.2011.

⁹¹ Williamson (1972a), pl. XIIb.

⁹² Kelekian (1909), 20, Fig. 4; (1910), Fig. 72. He suggests 677 is equivalent to 1299 in both publications; Morgan (1998) suggested this was solar years, but Kelekian specifically gives the date as “It is 677 of the Hegira.”

underglaze-painted ones, as it involved a second firing once the red, white and gold leaf decoration had been applied. Black was sometimes used underglaze to outline the overglaze decoration. The body is the same siliceous-paste one, and the blue is believed to be derived from cobalt, not ground lapis lazuli stone. However, French physicist Philippe Colomban has demonstrated that it would have been possible to use lapis lazuli if a lazurite-rich slip was sealed with a cobalt-containing lime-rich glaze, preventing the heat from discolouring it,⁹³ and more investigations need to be made to establish whether this is the case or not. Blue was evidently an important colour for the Mongols, judging by its liberal use and the vogue for blue and white porcelain under their patronage in China. It appears to be associated with the sky which was central to their shamanist beliefs. Gold leaf was applied to Chinese official porcelain and other fourteenth century wares, though little survives today.⁹⁴ Yuan regulations stipulated that gilded decoration was reserved for imperial use.⁹⁵ It is possible that this initially inspired the use of *lajvardīna* tiles in the palace at Takht-i Sulaymān. In fourteenth century contexts their use was seemingly restricted to funerary monuments such as the tomb complex at the Shāh-i Zinda, Samarqand and a small tomb at the Jayik settlement near Uralsk in western Kazakhstan.⁹⁶ There are two small *mihrab* tiles in museum collections of unknown provenance.⁹⁷ However, in the Golden Horde polychrome enamelled tiles were used in a palatial villa at Selitryonnoye in a fourteenth century context – see Catalogue number 2.6.11 for an illustration.⁹⁸ So it is quite possible that they were used more widely, and the only reason for their survival in funerary complexes is that they were constructed out of

⁹³ Colomban (2003), 422.

⁹⁴ Liu (1993), 33-34, fig. 2.

⁹⁵ *Ibid.*, 33.

⁹⁶ Kuznetsova (2006), 175.

⁹⁷ OA G.1983.487 in BM, see Porter (1995), 40, fig 26; Berlin Museum I. 4/67, unpublished, located in Takht-i Sulaymān store above Pergamon altar.

⁹⁸ Fedorov-Davydov (1984), 129.

more durable building materials and their endowments ensured a greater degree of maintenance.

The use of these tiles on dated buildings demonstrates that this technique was in use for over a century, beginning with Abāqā Khān's palace at his summer residence at Takht-i Sulaymān dated to the 1270s through to the tombs at the Shāh-i Zinda in the 1380s/1390s. A similar enamelling technique was used even earlier in Anatolia at the Saljūq palace complex in Kubadābād, dated by an inscription moved to a neighbouring mosque to 1236,⁹⁹ but the excavator Ruçhan Arik has expressed some doubts about this.¹⁰⁰ The excavators think the palace continued in use into the Mongol period, i.e. into the fourteenth century.¹⁰¹ There are two dated bowls or cups: one in the Khalili Collection, London¹⁰² (number 1.9.1) and the other in the Berlin Museum (number 1.9.2),¹⁰³ of *muḥarram* 778/May-June 1376 and the first day of *rajab* of the year seven hundred and seventy-six/December 1374, respectively. Both these are of unknown provenance, although the Berlin one is said to have come from Nishapur according to the museum records.

The Khalili stem-cup has a quatrain from Šūfī poet Afdal al-Dīn Kāshānī (d. *circa* 610/1213-14)¹⁰⁴ which reads:

*“As long as the heart is not free from worldly attachment
Our black image would never turn into pearl
The heads will not be filled with lust
Because no upside down bowl can be filled.”*¹⁰⁵

The archaeological record for Iran is slim, but from what is available to date its use was seemingly restricted to Azarbayjan for vessels. In the German team's finds from

⁹⁹ Arik (2000), 45, fig 22.

¹⁰⁰ Arik (1992), 102.

¹⁰¹ *Ibid.*, 103.

¹⁰² Pot 503 dated *muḥarram* 778/May-June 1376; Grube (1996), pl. XIX, fig. 9.

¹⁰³ I.24/66 dated 1 *rajab* 776/December 1374; Hayward (1976), 252, fig. 371.

¹⁰⁴ Chittick (1988), *Elr* on line.

¹⁰⁵ Read by Manijeh Bayani, who cites *Rubbā'iyāt-i Bābā Afzal*, edited by S. Nafisi, Tehran, 1311, p. 126. no 187. In the footnote, 'this is [also] attributed to Abu Sa'id Abi'l-Khayr'.

Takht-i Sulaymān there are four fragments in the Berlin Museum collection, three worn bases (number 1.9.3), with only traces of the red enamel, and a better preserved closed form fragment (number 1.9.4), which displays the black outline and gold leaf decoration well. These apparently came from a post-Abāqā context. The best preserved examples come from the American excavations of the small Īlkhānid hill fort at Ḥasanlū, to the south of Lake Urmīya.¹⁰⁶ Most of these have geometric and floral motifs, but one bowl fragment (HAS 62-10)¹⁰⁷ has a peacock's head and part of a flying bird above it, in the midst of long-stemmed foliage. Danti stated that “..the majority of the glazed material is overglaze decorated ware with enamel and gild decoration (lajvardinah).”¹⁰⁸ I have included two of his published photographs and drawings (numbers 1.9.5 and 1.9.6). Danti has interpreted Ḥasanlū as “a node of central state control, perhaps a garrison and/or the abode of a local administrator”¹⁰⁹ which would explain the use of these fine wares rather than coarser products.

Two more pieces lacking any provenance have been included in the catalogue: an *albarello* (number 1.9.7), in the typical Īlkhānid shape, and an example of the many one-handed jugs (number 1.9.8) to be found in collections. Bottles were also in circulation.¹¹⁰ If any of these wares was ever used at court, this type would be the best candidate, yet none were reported from the Īlkhānid kiosk at Bīsūtūn,¹¹¹ whereas Chinese blue and white wares were.

¹⁰⁶ Danti (2004), colour plates A, B, C, D and F.

¹⁰⁷ *Ibid.*, colour plate B, fig #5.

¹⁰⁸ Email dated 24.10.2003, before his publication was available.

¹⁰⁹ Danti (2004), 66.

¹¹⁰ Curatola (1993), #140; Crowe and Mekhitarian (1976), 66.

¹¹¹ Lushey-Schmeisser (1996).

1.10. Īlkhānid Monumental Moulded Wares

Watson declared these wares “perhaps illustrate the artistic pinnacle of a continuing manufacture of functional ware,”¹¹² yet the published archaeological evidence was lacking. Fragment number 1.10.3 is surely the necessary proof.¹¹³ The turquoise blue interior confirms it was a closed form, as it was common practice to use cheaper glazes for areas that were not on show. Furthermore, Fedorov-Davydov found two fragments in his excavations at Selitryonnoye with two riders playing polo; unfortunately he omitted to give any indication of the colour and the images are in black and white (number 1.10.5).¹¹⁴ Morgan included these monumental jars in his *lajvardīna* section, citing several examples in museum collections with traces of gilding and enamels. Certainly number 1.10.3 is such an example, as is the Freer Gallery monumental jar (number 1.10.4).¹¹⁵ Although it is now thought that for the latter example this gilding was a twentieth century addition.¹¹⁶

The inscription around the shoulder of number 1.10.1 indicates that these jars may have been used for the Mongol drinking parties, or certainly stored alcohol:

“The heavens and earth are in turmoil – how lucky are those who drink and forget.”

The Persian inscription is written in *naskhī* script, information taken from the Freer Gallery website.¹¹⁷ This sentiment is reiterated in the inscription on number 1.10.2 from the MMA which reads:

*“Tumultuous air and boiling earth; joyous is he whose heart is happy.
Drink!”*¹¹⁸

¹¹² Watson (2006), 341-42.

¹¹³ Morgan (2005), LV 1,4 – he describes it as having ‘appliqué’ decoration; certainly in the section this is not evident. He adds that it was from the 1968 season.

¹¹⁴ Fedorov-Davydov (2001), 136, 161, cat # 75 – the larger of the two is 23 cm long and 1.4 cm thick.

¹¹⁵ Atıl (1973), # 25.

¹¹⁶ Conversation with Shreve Simpson, 24.1.2012.

¹¹⁷ <http://www.asia.si.edu/collections/singleObject.cfm?ObjectNumber=F1908.198>, accessed 20.7.2011.

Number 1.10.3 was the only fragment found amongst the boxes stored in the Berlin Museum, and none were evident in Tehran. The current excavators have announced they have established an online database of a sherd bank for recently excavated items, but have yet to provide a link.¹¹⁹

1.11. Īlkhānid Polychrome on White

These are what Morgan styles ‘Syrian’ wares in his thesis¹²⁰ and Watson ‘polychrome painted’.¹²¹ Morgan suggests that these polychrome wares are an indicator that some Syrian potters moved to Iran after 1259,¹²² and this would account for the addition of aubergine and green to the colour palette. If this was the case, surely they would have introduced the iron red slip that was so popular in Syria and the draughtsmanship would have been more accomplished. To my knowledge aubergine and green were not used in Syria at this time in any case. At best the figural scenes could be interpreted as poor copies of the Syrian products, and an attempt on the part of the Iranian potters to imitate their neighbours.

There are at least three dated examples: number 1.11.1 (V&A C.53-1952 dated 672/1274); ex-Croisier collection dish 706/1306-7;¹²³ and number 1.11.6 (ROM inv no 909.27.1 - *ramaḍān* 729/July 1329). This covers a considerable time range and it is interesting to note that the two fourteenth century examples have a geometric interlace design in their tondos, perhaps a tendency to aniconism after the official conversion to Islam. If the inscription on the ROM bowl is any indicator, there was a

¹¹⁸ <http://www.metmuseum.org/Collections/search-the-collections/140008661?rpp=20&pg=1&ft=56.185.3&pos=1>, accessed 28.5.2012.

¹¹⁹ <http://www.chnpress.com/news/?section=2&id=1289>, accessed 20.7.2011. Undated press release, but certainly recent as have checked the website regularly for an update since its first announcement in October 2006. Further searches on the Farsi website by Javad Golmohammadi produced the same report, dated August 2008, again there was no link.

¹²⁰ Morgan (2005).

¹²¹ Watson (2006), 340.

¹²² Morgan (2005), 74.

¹²³ Soustiel (1985), #263. This was sold and I have been unable to locate the new owner. Laure Soustiel thought it might have been purchased by Plotnik, but he did not – email communication.

demand for the protective powers of such objects, in this instance through a cursive inscription written in Persian:

*“O master who has both reason and judgement in your intellect
May you forget all the World’s sorrows
Whenever you desire food
May whatsoever you eat from this bowl benefit you
May the high Heavens bow to your wishes
May you not be harmed by the evil eye.
And that was written in the blessed month of Ramaḍān, of the year seven
hundred and twenty nine (July 1329).”*¹²⁴

Whereas the more formally executed inscription in relief on the exterior of number

1.11.1 is in Arabic and reads:

*“Perpetual glory and increasing prosperity [and] constant splendour and
rising good fortune and wealth [and] happiness [and] well-being, [and]
[God's] grace [and] generosity [and] power and strength [and] long-life to
its owner. In the month of the blessed ramaḍān, the year six hundred and
seventy two (March-April 1274).”*¹²⁵

The relief inscription on the exterior band of number 1.11.2, a Takht-i Sulaymān

fragment reads, in Arabic: “Perpetual glory, increasing prosperity.” – *al-‘izz al-da’im al-iqbāl al-zā’id*.¹²⁶ It is not clear where these four Takht-i Sulaymān

fragments came from, but there are two profiles of this ware illustrated by Nippa that came from an early fourteenth century context.¹²⁷

All the archaeologically attested fragments in the catalogue are from Takht-i Sulaymān, and, as with the *lajvardīna* pieces, it is possible that they were produced in Azarbayjan. One example was found at Ānī, a little further to the west.¹²⁸ Soustiel on the other hand, citing the dated Croisier bowl,¹²⁹ which Adle read as 806, and not 706, and a platter in the Institut du Monde Arabe (inv no AI 83-6),¹³⁰ declared that

¹²⁴ Translation kindly provided by Manijeh Bayani.

¹²⁵ Read by Manijeh Bayani.

¹²⁶ Read by Manijeh Bayani, 22.7.2011.

¹²⁷ Nippa (nd), Figs 1.2 and 1.3.

¹²⁸ Shelkovnikov (1957), pl 38, #438.

¹²⁹ Soustiel (1985), 226.

¹³⁰ *Ibid.*, 226, fig. 256.

they were definitely not made in Iran, and thought Damascus or Baghdād more likely, without anything to support his statement. In the captions for both vessels he wrote “Bagdad?”, and on the basis of Adle’s reading of a badly defaced possible ‘7’ or ‘8’, dated them both to the end of the fourteenth century/beginning of the fifteenth century. Bearing in mind we already have a broad dateline between 1276 and 1329 for the other vessels, I favour the ‘706’ reading, citing the similarity in their decoration as an added argument. There is a bowl in the MMA collection (number 1.11.7) with similar internal and external inscriptions; the exterior one in relief is in Arabic and reads:

*“al-‘izz al-da’im al-iqbāl al-zā’id wa al-naṣr al-ghāl[ib] wa al-ra’y al-thāqib ... wa’l sa’dat wa’l-salamat wa’l-karamat wa’l-ni’mat ... li-sahibihī.”*¹³¹

Which in translation reads:

*“Perpetual glory and increasing prosperity and frequent victory,
Penetrating Judgement and happiness and well being and generosity and
God’s grace.... to the owner.”*¹³²

The interior inscription is purely decorative and according to Abdullah Ghouhani is illegible.¹³³ Unfortunately this bowl has no provenance.

1.12. Īlkhānid Black under Transparent Cobalt Glaze

Black under a transparent cobalt blue is uncommon, unlike the turquoise glazed group. This was possibly because cobalt was a much more expensive material,¹³⁴ or because it was difficult to see the underglaze decoration. In the Takht-i Sulaymān collection at the Berlin Museum there are a few fragmentary examples, with one closed form. Two of these fragments had rivet holes, indicating they had been mended at some stage to prolong their life. The well-potted T-rims are typical for

¹³¹ This was kindly read by Abdullah Ghouhani in May 2012 and emailed to me on 2.6.2012 by Sheila Canby.

¹³² Thanks to Javad Golmohamadi for helping me unravel Ghouchan’s jumbled transliteration.

¹³³ *Ibid.*

¹³⁴ Morgan (2005), 84.

this period, and the whirling ‘Catherine wheel’ design on number 1.12.1a was in the potters’ decorative vocabulary, for example number 1.13.6. I was unable to find a complete type 1.12 vessel.

1.13. Īlkhānid Ṭūs Wares

The medieval fortified site of Ṭūs, just to the north of Mashhad, has been undergoing restoration and consolidation since 1996 and several deep soundings have been made by the ICHTO Khurasan archaeological unit. In 2003 the director of this work, Mr Maḥmūd Ṭoghrāiy, gave me a guided tour and lent me a draft of his preliminary report. He explained that these Ṭūs wares used the same technique as those of Nishapur, Isfārā’īn and Jurjān, but have a sandy-feeling siliceous body, no slip, and are inferior. It could well be that they contain no frit, like the Sulṭāniyya black under turquoise examples. Typical fourteenth century wares are black under a turquoise glaze, and blue, black, and/or turquoise under a clear glaze. There are also many earthenware derivatives. Kiln furniture has been found, but no workshops excavated to date. Iranian archaeologists are very conscious of the regional differences in this fourteenth century pottery, which is difficult to appreciate without more published material. I have included a few colour plates from Mr Ṭoghrāiy’s report for the record. Numbers 1.13.5 and 1.13.6 are other examples from the excavations. The poor quality of the body is evident from these images.

1.14. Īlkhānid Sulṭāniyya Slipped Red Calcareous Clay Wares

Strictly speaking these wares should not be included as they do not have siliceous-paste bodies, but they do have alkaline glazes and the potters were doing their best to hide their diagnostic iron red body with calcareous grits and covered it with a thick white slip. A fragment of type 1.14 - Sulṭāniyya slipped red earthenware (see number 1.14.4) - was examined by Dr Christopher Doherty in the Oxford Research

Laboratory for Archaeology and the History of Art (RLAHA) who confirmed its calcareous clay body with natural fine components including shell, quartz, iron-rich grains - which accounts for its redness, mica and oversized pieces of crystalline limestone.¹³⁵ Doherty explained that this type of body is typical for river clay.

The excavators at Sulṭāniyya insist that these wares are found in Īlkhānid levels. When their finds have been processed, registered pieces (it was not clear what happened to their diagnostic sherd collection, or if they had plans to create a sherd bank as they have in Tabriz) are sent to the ICHTO treasury in Zanjān, which I was permitted to visit in 2003, but photography was forbidden. There were several more examples with blue and white decoration (like number 1.14.1) in the collection, in addition to black under turquoise (both types 1.4 and 1.15), Chinese celadon, and both Ṣafavid and Timurid pieces, despite the excavators insisting there are no levels representing the latter. If the archaeology can indeed prove that these blue and white products that copied Yuan prototypes are contemporary with the tomb's foundation in the early fourteenth century, this will be significant, but for the time being it is perhaps better to reserve judgement until the workshop area has been investigated.

1.15. Īlkhānid Sulṭāniyya Black under Turquoise Calcareous Clay Wares

There are several fragments of this type in the Talbot Rice collection (e.g. number 1.15.3) and a T-rim example was generously made available for analysis (number 1.15.6). I suspected that this type did not have a fritted siliceous paste, rather a calcareous one, as revealed through analysis by some of Redford's finds at Gritille.¹³⁶ The clay body has a creamy colour, is well levigated, and has considerable quantities of organic material apparently responsible for airholes in the

¹³⁵ Visit to the RLAHA on 30.5.2012. Unfortunately the lab's scanning electron microscope is no longer operative so it was not possible to make a more detailed examination.

¹³⁶ Blackman and Redford (1994).

glaze and shrinkage cracks.¹³⁷ At first sight this body could be mistaken for a siliceous paste due to all the inclusions and its colour, but a thin section viewed through a X10 magnification microscope revealed the truth.¹³⁸ The body, however, is very different from the red clay with calcareous inclusions found in type 1.14, discussed above. There is a T-rim bowl in the Ashmolean (inv no 1956.117, number 1.15.4) with an almost identical profile to that of inventory number 1978.1625 (number 1.15.1) which has been published as Syrian,¹³⁹ despite a label attached to it indicating it was exhibited in the London 1931 Persian exhibition, On the basis of its diagnostic shape and materials, I would suggest that it should be reclassified as Īlkhānid and that it is probably from these Sultāniyya workshops. A rim fragment with similar decoration was excavated at Baṣṭām in north-west Iran (number 1.15.5).¹⁴⁰ This is principally an Urartian site, with a smaller medieval Islamic settlement. The excavators reported that it was abandoned in the thirteenth century after the Mongol invasion,¹⁴¹ but some of the published pottery finds would argue against this.

2. Golden Horde Products

These are sourced from a much wider geographical area (see Map 5, volume 1, page 34), as the sites are spread between the Volga basin (roughly from Kazan to the delta where it flows into the Caspian Sea), the Crimea and Black Sea basin (Ukraine) stretching right round to the Dniestr and Danube deltas, the Caucasus, the Ural river basin (present day Kazakhstan), the Aral Sea region (Kazakhstan and Uzbekistan), and they are found in much smaller quantities, yet well stratified contexts, as far north-west as Moscow and Novgorod (Koval reports that there are finds in eleven

¹³⁷ As detailed by Doherty when examined by him.

¹³⁸ As for type 1.14 this was also examined by Doherty.

¹³⁹ Porter (1981), 43, Plate XXX, fig. 9.

¹⁴⁰ Strauss (1979), fig. 23.5.

¹⁴¹ Kleiss (1990b), 177.

other towns including Byeloozero, Ryazan, Tver, Kolomna and Kiev).¹⁴² Unlike the Ilkhānid examples, the corpus is largely derived from excavations, and as a consequence more securely dated. In view of the wide area covered, the uniformity of these products is astonishing, especially when you consider that this was the largest khanate and the most ethnically diverse,¹⁴³ with over 140 communities being registered in cities by the fourteenth century.¹⁴⁴ Fedorov-Davydov was sure that regional differences in production and decorative designs for these siliceous-paste or *kashi* wares will eventually be established, but this is still in the future.¹⁴⁵ Several major exhibitions organised over the past ten years have brought this material to a greater audience, but they have failed to give a true picture of the prolific and seemingly uniform pottery production in the fourteenth century and the vast quantities of material retrieved to date, probably because they have been organised under a general ‘Mongol umbrella’ and linked to Chingis Khān’s conquests, so space has not permitted this. Two exhibitions with useful catalogues give a more realistic insight into this world: the first in California, 2001, organised by Fedorov-Davydov;¹⁴⁶ and the second is the 2005/6 State Hermitage Museum one organised by Mark Kramarovsky in Kazan.¹⁴⁷ These finds reflect highly-organised urban settlements. Russian academics have long assumed that the technical knowhow for the siliceous-paste production came from Khwārazm,¹⁴⁸ in the knowledge that the nomadic Mongol hordes and the steppe peoples that they had conquered had no such tradition. What is relevant to this study is that many of the cities were established on new sites, so archaeologists have not been hampered by centuries of accumulated

¹⁴² Koval (2006), 176.

¹⁴³ Kramarovsky (2009), 181.

¹⁴⁴ *Ibid.*, 183.

¹⁴⁵ Fedorov-Davydov (1984), 94.

¹⁴⁶ Fedorov-Davydov (2001).

¹⁴⁷ Kramarovsky (2005).

¹⁴⁸ Fedorov-Davydov (1984), 94.

debris and structures from previous cultures. Yet there are several long-established urban centres, such as Bolgary and Bilyar, near Kazan on tributaries of the Volga that can provide a fuller horizon for comparative purposes.

2.1. Golden Horde Coloured-ground Relief

This type is closely related to the Īlkhānid coloured-ground variety, yet is quite distinctive, with the addition of both cobalt and turquoise in the colour palette and higher relief. Fedorov-Davydov found evidence for moulds being used in the manufacturing process and states that the relief was created with both a mould and slip trailing.¹⁴⁹ Their finds in the Selitryonnoye workshops also confirmed that they were made with one firing. At all sites investigated this was the most popular style, around 35-40% of the total number of siliceous-paste wares, or to use Russian terminology, *kashi* finds.¹⁵⁰ To date the only confirmed production site is Selitryonnoye, but there is kiln slag at Saraichik, and definite evidence for glazed earthenware manufacture. The excavators fear that the workshops may have been cut away by the meandering Ural River which has changed its course over the centuries and currently cuts into the site.¹⁵¹ At Solkhat they have found numerous kilns, but as far as I am aware, not one has evidence of *kashi* ware production.¹⁵²

Most of these products share the same arcaded exterior relief design highlighted with blue dots, as in all the examples illustrated, with the exceptions of numbers 2.1.1 and 2.1.3. It may well be that this will prove to be a distinguishing feature between production centres. Number 2.1.3 has no relief on its exterior and imitates Īlkhānid number 1.5.1.1 with the double vertical cobalt lines at regular intervals and black scrolling copied from incised metalwork, see also Catalogue

¹⁴⁹ *Ibid.*, 144.

¹⁵⁰ *Ibid.*, 66; Samashev et al (2008), 99.

¹⁵¹ Email discussion with Olga Kuznetsova, the ceramicist.

¹⁵² Discussions with Mark Kramarovsky in May 2006.

numbers 1.5.1.3 to 1.5.1.7. The interior has the same division into quarters with zigzag-infilled stripes as number 1.2.5, but the stippling is more precise and closer to the neat Golden Horde examples. Many of the small bowls (known as *piyala* in the Russian literature) have a repeated Arabic word, *iqbāl* (prosperity), written upside down encircling the interior rim which its owner could have read when drinking from the vessel. There are a variety of decorative themes, aquatic birds, prancing felines, scrolling foliage, flowers, bands of zigzags dividing the space, lozenges, cobalt blue crosshatched bands, repeated inscriptions, and the commas or teardrops which have been interpreted as small fish,¹⁵³ yet the degree of uniformity in both shape and decoration is remarkable. This was mass production on a grand scale which is not evident in Iran, at least archaeologically.

Few examples have found their way into western collections – number 2.1.10 in the Ashmolean collection is the only example identified to date in the United Kingdom. The David Collection in Copenhagen purchased one with a central lotus in 2000,¹⁵⁴ but most of the so-called Golden Horde ceramics found in the sale rooms belong to the rather less distinct group covered by Īlkhānid type 1.2, coloured-ground grey relief with blue. The only other museum example found outside the former Soviet Union countries, is one in Cairo (number 2.1.13) with a central striding goose and a repeated *iqbāl* just below the interior rim. There are two used as *bacini* on the exterior walls of the Vlatadon monastery, Thessaloniki,¹⁵⁵ thought to have been donated by pilgrims and a rim fragment in Genoa found during excavations to install a cloakroom inside San Lorenzo cathedral, described as ‘Raqqa

¹⁵³ Koval (2006), 175.

¹⁵⁴ Christie’s 10 October 2000, lot 269; Folsach (2001), 173, #223: diameter 18.7cm; height 8.9cm – said to be from Kazakhstan, but this was not mentioned by Christie’s.

¹⁵⁵ Philon (1985), 299-319; Poluboyarinova and Sedov (2007).

ware' in a publication.¹⁵⁶ There could well be many more hiding in museum reserves, especially in Italy given the trading contacts through the Crimean ports, so this is far from being a complete list.

The only evidence for closed forms in this style was excavated at Mizdakhkan (number 2.1.12), which suggests that either metal ones were used more widely or they routinely used glazed and unglazed earthenwares for liquid containers or skins. Recent excavations at Selitryonnoye have discovered lids (see number 2.1.14) for the rosewater bowls.¹⁵⁷

2.2. Golden Horde Underglaze-painted Panel Style

The panel style motif was not as popular in the Golden Horde and unlike the Īlkhānid and Mamlūk products it is very easy to distinguish them from the other two. Most have a motif of cobalt circles and a sketchily drawn black diamond-shaped trellis on the exterior – the exception in this instance being number 2.2.2, from the Solkhat excavations, which has the more traditional Īlkhānid style lotus petals or arcading, and on the interior more blank spaces. Perhaps this is indicative of a regional variation. The inscription on number 2.2.1 reads *al-'izz wa al-iqbāl* (glory and prosperity)¹⁵⁸ – the single stippled dots forming the background are typical Golden Horde. Number 2.2.4 is a rare closed form with curious moulded trefoil shapes on the narrow shoulder, rather like epaulettes. It is normally on permanent display in the State Hermitage. The circle and trellis motif at top and bottom place it firmly in this category. The fact it has been so widely published rather indicates its rarity, in that there is no alternative piece to display.¹⁵⁹ There is one single-handled jug from Selitryonnoye, but its decoration looks badly worn in the one published

¹⁵⁶ Mannoni (1975), fig 34.1, col pl II, #31.

¹⁵⁷ Bocharov et al (forthcoming).

¹⁵⁸ Thanks to Manijeh Bayani for reading this.

¹⁵⁹ Dār al-Āthār (1990), 100, cat #70, being the most recent, and for a fuller bibliography.

black and white photograph.¹⁶⁰ There is no turquoise in the colour palette for this group.

There is, however, one small closed form that is not rare, and that is the humble inkwell. These were probably for domestic or scholarly use, as the chancery scribes would undoubtedly have had inlaid bronze ones – numbers 2.2.5 and 2.2.6 are a couple of examples. This shape is found in all three areas, so it is always difficult to distinguish them except possibly by decorative motifs.

2.3. Golden Horde Underglaze-painted Geometric

This is closely related to the panel style in that there is no relief decoration and many share the ‘circle and trellis’ exterior motif, number 2.3.2 being the exception to this with its lotus panels alternating with pseudo-epigraphic vertical bands. Unlike the Īlkhānid examples, which use thick black pseudo-epigraphic motifs to fill in any blank space, here the potter used black flowers in silhouette against the white ground. The palette is cobalt, and black on white with minimal turquoise.

2.4. Golden Horde Flowers and Peacock Feathers

Like types 2.2 and 2.3 this group shares the same exterior ‘circle and trellis’ motif; the colour palette is cobalt, turquoise and black on white. The interiors have either floral motifs, such as the lotus on a turquoise ground in number 2.4.1, or the cobalt six-pointed star in number 2.4.2. There are pseudo-epigraphic bands framing the central design, but no *iqbāl* or other benedictory words to invoke blessings on the owner. The ‘stencilled’ six-petal flower repeat design in the cavetto of number 2.4.3 was also a common motif and there were several found at Selitryonnoye.¹⁶¹ A similar repeat motif, but with leaves and stems, is found on an Īlkhānid bowl in the

¹⁶⁰ Fedorov-Davydov (1984), ill 15.

¹⁶¹ Fedorov-Davydov (1984), ill 20/2 and 21.

MIA Cairo collection.¹⁶² This was originally classified as Mamlūk, but now included in the Khurasani group type 1.6.

There are two more diagnostic decorative elements in this group: the ‘stiff lotus’ and the repeated peacock feathers. The stiff lotus in the cavetto of number 2.4.2 appears in a simplified form on Mamlūk products that has morphed into a shell-like design, see Catalogue number 3.5.1. There are two fragments, numbers 2.4.8 and 2.4.9, found at Iranian sites, which either belong to this group, or they are copies produced in Iran. Another variation on the theme is an earthenware copy (number 2.4.5) from Selitryonnoye or Tsarevo found in a mixed box in the Kazan National Museum reserves. The stack of six bowls and the trumpet spacer from Selitryonnoye (numbers 2.4.6 and 2.4.7, respectively) are the ultimate physical proof that this category was manufactured at Selitryonnoye.

2.5. Golden Horde Black under a Transparent Turquoise Glaze

Unlike the Īlkhānid world, black decoration under a transparent turquoise glaze was not as popular as blue, black and white decoration under a colourless glaze. For example, at Saraichik where 33% of the glazed ceramics were siliceous-paste or *kashi*, they represented 29% of the total of this amount, whereas the relief wares represented 35%.¹⁶³ At both Tsarevo and Selitryonnoye decoration under a colourless transparent glaze was between 40-43%, at Madjar 30%, as against 26-29% under a turquoise glaze at all three sites, and between 15-16% non-transparent glazes, such as imitation celadon and *lajvardīna*.¹⁶⁴

This is borne out by their relative scarcity when sourcing examples for the Catalogue. Number 2.5.1 is the ubiquitous rosewater bowl with three bosses and a spout, and has a counterpart from Saraichik illustrated in number 2.5.10, and

¹⁶² Atıl (1981), 158, cat #70.

¹⁶³ Samashev et al (2008), 98 ff.

¹⁶⁴ Fedorov-Davydov (1984), 66.

possibly 2.5.11. Number 2.5.12,¹⁶⁵ also from Selitryonnoye, was published in a recent catalogue and I have included it, to illustrate how ‘borrowed’ Īlkhānid decorative motifs can appear on a distinctive Golden Horde shape, demonstrating close contacts and influences between workshops. The bowls numbers 2.5.2 to 2.5.4, 2.5.8 and 2.5.9 have simple decorative programmes, but numbers 2.5.5 and 2.5.6 are an interesting variation on the relief wares. They looked as though they might have been a mistake, but they represent 7% of the total number of siliceous-paste vessels excavated at Saraichik, a fact that argues against this.¹⁶⁶ Number 2.5.7 is another inkwell – again this is the only closed form evident in this style.

2.6. Golden Horde Lajvardīna

Lajvardīna was popular and despite being more expensive to manufacture, made up between 15-16% of the *kashi* wares at the principal Volga sites.¹⁶⁷ Number 2.6.1 is styled a rosewater bowl in the Kazan catalogue,¹⁶⁸ yet it has no spout or bosses. It has been published twice by Fedorov-Davydov, and he read the Persian inscription on the shoulder as: “They say there is water of life in the world...”¹⁶⁹ which surely indicates that it was used for a liquid. Number 2.6.10 is possibly a metal prototype for this shape. None of the kilns excavated at Selitryonnoye produced evidence for *lajvardīna* manufacture, yet several of these pieces have a darkish green-glazed base, including inside the foot ring – see numbers 2.6.2 to 2.6.4 – and Kramarovsky believes this to indicate Golden Horde manufacture, and a device to distinguish them from the Īlkhānid products.¹⁷⁰ It would be convenient if this indeed is shown to be true by finds at a kiln site. The fragment numbers 2.6.7 and 2.6.8 are from Jayik

¹⁶⁵ Fitzhugh et al (2009), 176.

¹⁶⁶ Samashev et al (2008), 98.

¹⁶⁷ Fedorov-Davydov (1984), 66.

¹⁶⁸ Kramarovsky (2005), 254.

¹⁶⁹ Fedorov-Davydov (1984), ill 31 and 32; idem (2001), 165, cat # 87. Manijeh Bayani was unable to read the inscription in the photographs available.

¹⁷⁰ Conversation in May 2006 during the Kazan conference.

settlement,¹⁷¹ a site with the remains of a tiled domed mausoleum, which includes *lajvardīna* tiles; the excavated finds date to the thirteenth/fourteenth century. It is located near present day Uralsk, western Kazakhstan. The turquoise and cobalt number 2.6.8 echoes the style of number 2.6.1. The excavators date numbers 2.6.6 to 2.6.8 to the fourteenth century.

The circular tile panel number 2.6.11 includes both turquoise and cobalt *lajvardīna* tiles as well as type 2.7 polychrome ones. It was excavated in one of the palatial villas at Selitryonnoye, thus indicating that *lajvardīna* tiles were also used in secular contexts. The inscription is taken from a *mathnavi* of Sa' dī, but is too incomplete to identify with certainty.¹⁷² The important point to register here is that it is Persian poetry of a secular nature.

2.7. Golden Horde Polychrome Enamelled

A counterpart to *lajvardīna* wares is the polychrome enamelled one, similar in technique to the so-called *mīnā'ī* wares of pre-Mongol Iran. In the fourteenth century something strange occurred in the Golden Horde, seemingly imitating Jin-Yuan *honglucai* ('red-and-green enamelled') thirteenth/fourteenth century wares.¹⁷³

Several examples were excavated at Qaraqorum and Kramarovsky has spoken extensively on this phenomenon.¹⁷⁴ The polychrome stem-cup (number 2.7.1), which graced the cover page of the Kazan catalogue, is a splendid marriage of these two cultures – with a stylised inscription band in red enamel and gold leaf encircling both the interior and exterior rims and the Chinese-style pair of phoenixes encircling the tondo. The repeated inscription is an abbreviation and reads either '*al- 'izz*'

¹⁷¹ Kuznetsova (2006), 175-178.

¹⁷² Kindly read by Manijeh Bayani.

¹⁷³ Li Baoping (2010), 11.

¹⁷⁴ Kramarovsky (2007).

meaning 'glory' or possibly 'li- 'ā[fiya]', which translates as 'for health'.¹⁷⁵ This is a frequently occurring inscriptional motif on the *lajvardīna* pieces found at Golden Horde sites, see numbers 2.6.2, 2.6.3 and 2.6.5. The cobalt blue is applied underglaze, but all the other colours appear to be overglaze enamels. Without handling it it is very difficult to establish this. The shape derives from Īlkhānid inlaid bronze cups, see Catalogue number 1.5.1.8.

Number 2.7.2 at first glance looks to be an example of Chinese blue and white, then you see the quatrefoil lozenge motif (1n) highlighted in red with gold leaf squares in their centres, using the same technique as for *lajvardīna* gold leaf. Black is used to outline some of the decoration, something the Jingdezhen potters never did.

Number 2.7.3 uses the red-and-green palette, and has the rounded, stylised red six-petal flowers as on numbers 2.7.1 and 2.7.4 and other tiles in the Nukus Museum from Mizdakkhan, a settlement between Nukus and Kunya Urgench. Fortunately Catalogue number 2.7.3 is dated by an inscription just below the rim on the exterior, which reads:

“bi-tārīkh-i sana arba ‘a wa sittīn wa sab ‘ami ‘a ferestād marā ze dast (dasht-e) m kāsa-ye”

“In the year seven hundred and sixty-four. He/She sent me from (out of)..hand (plain of) ... m, the bowl of...”¹⁷⁶

This is the equivalent of 1362-63. The inscription is too fragmentary to assess whether this is poetry or not, but the important fact to note is that it is in Persian and not Arabic. Unfortunately the excavators were unable to give me any detailed information on this piece.

¹⁷⁵ As suggested by Manijeh Bayani.

¹⁷⁶ Read by Manijeh Bayani.

Polychrome tiles with the same palette plus grey and more variation within the colours themselves were also found in a villa at Selitronnoye (number 2.7.6),¹⁷⁷ including one with the head of a man (number 2.7.7).¹⁷⁸ Number 2.7.6 has a Persian inscription which is too fragmentary to read fully, but Manijeh Bayani did identify one *mathnavi* of Sa' dī (1184-1283).¹⁷⁹ Unfortunately the stem-cup number 2.7.1 has no exact provenance. Number 2.7.5 is an example of Jingdezhen blue and white porcelain found at either Tsarevo or Selitryonnoye, to demonstrate that Chinese imports were available to serve as prototypes and stimuli for these new styles.

2.8. Golden Horde Monochrome Moulded

These are not strictly speaking monochrome, but the general effect is. The odd element is highlighted in a different colour underglaze. All of the examples identified are from rosewater bowls. While Catalogue number 2.8.1 does not have a specific find spot, number 2.8.2 was excavated by Valiullina at Bilyar in a mid- to late-fourteenth century context;¹⁸⁰ Bilyar was the second city of Volga Bulgaria in the pre-Mongol period, and one that recovered sufficiently to continue to be an essential node of trade under the Golden Horde rulers. The repeated Arabic inscription in relief encircling the shoulder reads *iqbāl* or 'prosperity' – the most frequently used invocation on Golden Horde ceramics. Note the use of turquoise glaze on the interior of these bright cobalt blue bowls.

Image number 2.8.5 provides an example of a boss from these bowls. They are seemingly indestructible and feature in sherd collections in museum reserves. I first encountered some in the State Hermitage reserves, but without a complete bowl

¹⁷⁷ Fedorov-Davydov (1984), ill 65-68 inclusive; presented together in the Kazan exhibition, Kramarovsky (2005), cat #232.

¹⁷⁸ Fedorov-Davydov (2001), 154, cat # 39, pl 68.

¹⁷⁹ Read by Manijeh Bayani- the rest are Persian verses, but too fragmentary to read - email 26.12.2011.

¹⁸⁰ Valiullina (2002), 216-243.

on display or in storage had failed to recognise their diagnostic importance until discovering a collection of them in Kazan. More are illustrated in number 2.5.13.

2.9. *Golden Horde Imitation Celadon*

The Kazan exhibition included four fragments and one whole vessel of genuine Chinese Longquan celadon¹⁸¹ and one Korean celadon inkwell.¹⁸² Number 2.9.1 illustrates the four Chinese fragments. No locally-produced imitations were included. We know they were made at Selitryonnoye and are listed by Fedorov-Davydov as his Group V under *kashi* wares, and divided into three categories: 1. Plain relief; 2. completely plain; and 3. incised ornamentation under glaze.¹⁸³ In his summary of percentages for each type of *kashi* design it is not clear what percentage they formed, probably around 5-6%.¹⁸⁴ None of these are illustrated, but he does record in the caption for illustration 16: “Kashi ceramic ware. 1. – A fired “trumpet” and three bowls (ceramic wasters), one bowl with polychrome painting without relief, one an imitation of celadon.”¹⁸⁵ The ‘trumpet’ maybe that illustrated in number 2.4.7. The now detached imitation celadon bowl waster must be with the others in Astrakhan.

In *The Silk Road and Cities of the Golden Horde* Fedorov-Davydov published a typical Longquan celadon ribbed jar (number 2.9.4 – left),¹⁸⁶ which can be dated to the 1320s by a large collection discovered in the Sinan shipwreck off south-west Korea in 1976,¹⁸⁷ alongside three ribbed imitation celadon bowls all stuck together (number 2.9.4 – left).¹⁸⁸ These were found at Selitryonnoye and are now in the State Historical Museum, Moscow. According to Kramarovsky both real

¹⁸¹ Kramarovsky (2005), 97, cat # 600, 632-34; whole vessel is cat # 555, unfortunately there is no image for this – SHMSP inv no Sar-484, found at Tsarevo in 1840s.

¹⁸² *Ibid.*, 97, cat #636.

¹⁸³ Fedorov-Davydov (1984), 66.

¹⁸⁴ *Ibid.*

¹⁸⁵ *Ibid.*, ill 16 caption, 267.

¹⁸⁶ Fedorov-Davydov (2001), 162, cat # 76, pl 94.

¹⁸⁷ Gompertz (1980), 201, fig 99B.

¹⁸⁸ Fedorov-Davydov (2001), 162, cat #77, pl 94.

and imitation celadons were found at all the Volga sites,¹⁸⁹ and they are also recorded at Saraichik.¹⁹⁰

An example in the form of a rosewater bowl was excavated in the Moscow kremlin (see number 2.9.6) in a fourteenth century context.¹⁹¹ It is perhaps debatable whether it should be considered under the category of monochrome turquoise or imitation celadon, but excavators at Mamlūk levels certainly include them in the imitation celadon count.¹⁹²

3. Mamlūk Products

At a glance there is little to distinguish these Mamlūk products from the Īlkhānid ones, hence the confusion caused by dealers switching provenance to go with market forces. Closer inspection reveals subtle, and some not so subtle, differences. Space does not permit an exhaustive list of all Mamlūk styles, that is a topic in itself, but for the purposes of this thesis I have chosen some key differences.

The archaeological evidence for this material is scanty and although it is known that both Damascus and Fustāṭ were production centres, no kiln has been investigated scientifically as yet. Bahgat in his Fustāṭ *sibākh* clearance project started in 1912 chanced upon pottery workshops near the mausoleum of Abū Sa‘ūd and invited Dr Fouquet to make a study of them.¹⁹³ One of these kilns produced siliceous-paste vessels. The finds included kiln furniture, such as tripod trivets and a trumpet-shaped support almost identical to number 2.4.7.¹⁹⁴ He found that imitation celadon, blue and white wares, and polychrome underglaze-painted wares were all fired in the same kiln. Around the kiln there were no earthenware wasters, other than

¹⁸⁹ Conversation in May 2006.

¹⁹⁰ Samashev et al (2008), 101.

¹⁹¹ Koval (2010), pl. 10/1.

¹⁹² Discussion with John Carswell on the Aleppo citadel October 2010.

¹⁹³ Bahgat (1913), 234.

¹⁹⁴ *Ibid.*, 236, fig. 3.

the kiln furniture, so it was assumed the glazed earthenwares, such as the typical Mamlūk *sgraffito*, were made elsewhere in another workshop.¹⁹⁵ They did find a lot of turquoise beads in the vicinity, just like the ancient faïence ones, so he concluded that the potters were aware of this ancient technology. They dated the kiln to the fourteenth/fifteenth centuries and assumed it was abandoned in 806/1403 when Fustāt was abandoned.¹⁹⁶

In Damascus a kiln was excavated by de Lorey at Bāb al-Sharqī in the early 1920s, but never published, other than a brief report,¹⁹⁷ and the finds, which were once housed in the French Institute have been dispersed, many to the American University in Beirut's museum.¹⁹⁸ Véronique François summarises the numerous pottery workshop-related finds in Damascus since then in her as yet unpublished manuscript on the pottery from Mamlūk and Ottoman levels in the Damascus citadel.¹⁹⁹ Jenkins identified three different groups of component elements in the body material in her pioneering study analysing sherd samples and wasters in the MMA and Madina collections by neutron-activation analysis: Damascus; Fustāt; and a 'Syria' group – the latter being the largest.²⁰⁰ She also found that a known Īlkhānid piece used a distinctively different clay in its siliceous-paste makeup which matched that of a panel style hemispherical cup like Catalogue number 1.5.3.1 in the MMA collection, further supporting the argument for its Īlkhānid origins, other than shape.²⁰¹ From the 1990s Mason wrote extensively on his petrographic analyses for similar material and concluded that Damascus was the sole production centre post-

¹⁹⁵ *Ibid.*, 240.

¹⁹⁶ *Ibid.*, 241.

¹⁹⁷ Contenau (1924).

¹⁹⁸ Carswell (1979), 19.

¹⁹⁹ François (forthcoming), 20-22.

²⁰⁰ Jenkins (1984), 95.

²⁰¹ *Ibid.*, 104, 110, pl 14 – Rogers Fund 1910, 10.44.5.

1250 for these alkaline glazed siliceous-paste wares.²⁰² A recent email correspondence²⁰³ with him confirms that the last published information on this particular topic is to be found in *Tamerlane's Tableware*,²⁰⁴ wherein he corrects his initial criterion for distinguishing the Damascus and Fustāṭ bodies: originally he stated that the latter consisted of angular grains, as opposed to the rounded Damascus ones, whereas in fact this is now considered unreliable. For the time being he distinguishes by decoration and quality, the Fustāṭ ones being of poorer quality. He also confirmed that unlike Jenkins he has not sampled any Damascus wasters. To conclude, it is evident that the jury is still very much out on this topic and there is no scientific argument to assign everything to Damascus.

3.1. Mamlūk Coloured-ground Grey Relief

These are generally known as 'imitation Sultanabad' wares and as discussed in Chapter 5, this type is easily distinguishable by the shape of the leaves, with the Mamlūk version having trefoil, pointed ones in the shape of a duck's footprint, whereas the Īlkhānid ones on the whole are much more rounded, added to which there are different diagnostic shapes to add to any identification discussion. What is not known is whether this type, which is found in both Syria and Egypt, was made in both countries, or limited to one production centre. In the past some of these wares have been erroneously identified as 'true Sultanabad', which has led to further confusion.²⁰⁵ I have yet to find an Īlkhānid coloured-ground grey relief product in a secure Mamlūk context, although there is one fragment in the Ashmolean's

²⁰² Mason (1995), 5; idem (2004), for a full bibliography.

²⁰³ 15.9.09, when checking facts for a presentation to the *Arts of the Mamluks* conference at SOAS the following week.

²⁰⁴ Mason (1996), 29-32.

²⁰⁵ For example François (1999), pl 1/32 and pl 16/31 identified Mamlūk examples as 'vrai Sultanabad', which led Redlak (2003), 51, to identify some of their type 3.1 examples as being 'genuine Īlkhānid' examples. I was shown the Alexandria finds in 2001 and could not identify any Īlkhānid examples, although I was keen to do so to prove that prototypes were available.

collection which is labelled as coming from Fustāt (P.645 - see Catalogue number 1.1.20).

Catalogue number 3.1.1 is the only example found that keeps to the Īlkhānid palette of no blue or red, yet the leaves and the shape are unmistakably Mamlūk. It also lacks any figural design, the accent being on the magnificent calligraphy copying that on metalwork and enamelled glass lamps from around the mid-fourteenth century. The inscription has been published by Kalus in conjunction with Bernus-Taylor,²⁰⁶ but Doris Behrens-Abouseif is unhappy with their interpretation and plans to republish it.²⁰⁷

The other examples all use cobalt blue, and specific details on the animals and vegetation, such as legs, beaks, calyxes are highlighted with red. Unlike Īlkhānid products, human forms are seldom portrayed; there is a face on a bowl excavated at Ḥamā, which has a circular white blazon on the rim band with a line through its centre, as on the horse's blue chequered blanket in number 3.1.7;²⁰⁸ a face in the Gayer Anderson collection, number 3.1.12; and another face on a closed-form fragment in the BM's storage found in Fustāt in 1874 according to a note inscribed in ink on its plain interior.²⁰⁹

3.2. Mamlūk Non-relief Coloured-ground

The main difference in this decoration is that the trefoil leaves are drawn in black directly onto the vessel's white body and there is no slip, the surface being totally flat. This only occurs in the Īlkhānid polychrome coloured-ground wares (type 1.3), when the ground is generally grey or cobalt, not the bright white of most of these

²⁰⁶ Bernus-Taylor and Kalus (1980).

²⁰⁷ Conversation with Behrens-Abouseif.

²⁰⁸ Riis and Poulsen (1957), 220-21, fig 762. They commented that this was the only one known to them for this period. The blazon is that of the *barīdī* or post horse commander according to Meinecke (1996), 157.

²⁰⁹ No registration number, just a # 12 in red ink on a white label. Photographed 24.7.2012.

Mamlūk products. Floral and animal forms are highlighted with cobalt blue, limiting the palette to three colours only. *Albarelli* appear to have been popular; in addition to numbers 3.2.1 and 3.2.2 there is a third in the MMA with striding peacocks,²¹⁰ and a fourth from the Danish excavations at Ḥamā.²¹¹ The two base fragments, numbers 3.3.3 and 3.3.4 give a date for this style, both being inscribed with the phrase: ‘*umila sanat khamisa wa ’araba ’in* – ‘made in the year 45’, the seven hundred being understood, giving a date of 1345 CE.²¹² There are many more similarly dated examples in the panel style group (type 3.3). Number 3.2.5, which belongs to Jenkins’ ‘Syria’ group,²¹³ appears to have had an identical peacock to that on the ‘Bāb al-Sharqī’ bowl number 3.2.6, which in principle places its production in Damascus. However, without more positive identification for de Lorey’s kiln it is impossible to be certain that it was manufactured in this area, as it is equally possible that the potters’ quarter also served as a storage and distribution centre for imported ceramic goods from other regional centres, and they only manufactured earthenwares here. The physical attributes of the MMA wasters number 3.6.1 define the ‘Damascus’ group, and they were “found in an old cemetery on the outskirts of Damascus,”²¹⁴ at some distance from Bāb al-Sharqī. François suggests that this is perhaps the old cemetery in Ṣāliḥiyya, at the base of Mount Qāsiyūn.²¹⁵ Of course there could have been two potters’ areas by the fourteenth century, and the important point to accept here is that the physical makeup of the non-relief coloured-ground type 3.2 group is different from that of the basketwork type 3.6 one. This could be due to a variety of reasons, such as: different potters; age/time differences; a change

²¹⁰ Jenkins (1984), pl 5a.

²¹¹ Riis and Poulsen (1957), 217, fig. 744. In two pieces: height 15.5cm and 9.5cm.

²¹² There is a third one from Fustāṭ in the Berlin Museum, inv no I.1-78a – see fig. 1.2 for an illustration.

²¹³ Jenkins (1984), pl. 1c.

²¹⁴ *Ibid.*, 104, quoting from a letter dated 26 Jan 1911 from the dealer Zado Noorian.

²¹⁵ François (forthcoming), 23.

in source for the quartzite or the clay; improved techniques; and new ideas. Without concrete evidence it is only possible to make suggestions. Jenkins did not test any type 3.1 fragments, possibly because the MMA does not have any fragments in their collection. The three type 3.2 examples (MMA inventory numbers 21.52.12; 13.190.15; and 10.105) tested belong to the ‘Syria’ group.

The distribution of these first two types is interesting in that in the Syro-French excavations on the Damascus citadel none were found, none in Tripoli and only two fragmentary pieces of type 3.2 are in the Karak publication,²¹⁶ where Milwright classes them under ‘blue and black’ wares, which includes all the panel styles and geometric ones too. The material at Aleppo remains unstudied, and any examples given in this catalogue are random ‘finds’ when sorting through mixed bags of material. Yet at Ba‘albakk there are several type 3.2 examples published by Sarre, two of which are included as numbers 3.2.13 and 3.2.14.²¹⁷ His number 52²¹⁸ (not illustrated here) looks to be a fragmentary bowl with a strutting peacock in the same style as numbers 3.2.5 and 3.2.6. Verena Daiber published some more in her article on Lebanese finds from pre-civil war excavations.²¹⁹ Unfortunately all records of this work had been destroyed, so there was no stratigraphic information available. A German team continues to work at Ba‘albakk, but to date they have had no significant finds for this study in the Mamlūk domestic levels that they have been investigating.²²⁰

3.3. Mamlūk Underglaze-painted Panel

Unlike the Golden Horde world, the panel style was highly popular in the Mamlūk one and the potters created many more variations on the Īlkhānid theme. This style is

²¹⁶ Milwright (2008a), pl. 32/7 and 8.

²¹⁷ Sarre (1925), 127-28, #56, pl 21 and #57 (sketch only on p 127), respectively.

²¹⁸ *Ibid.*, 127.

²¹⁹ Bloch, Daiber and Knözele (2006), pl 27.

²²⁰ Conversation with Dr Margarete van Ess, Director of these excavations, in Berlin, July 2011.

well represented in the Danish finds at Ḥamā,²²¹ and there are a couple of examples from the Damascus citadel.²²² François adds that a kiln waster with this same design was found during late nineteenth century excavations in the Bāb al-Sharqī area, information gained from photographic records in the Louvre.²²³ The shapes are varied, both open and closed forms, the most popular being *albarelli*, large baluster jars, shallow bowls with wide flat rims, the ubiquitous hemispherical lotus bowl, so-called ‘chamber pots’, bowls with everted ledge rims – all summarised by Sarre in a series of ten profiles.²²⁴ The only one he does not include is the small cup with a splayed foot, illustrated in Catalogue numbers 3.3.3 and 3.3.4. Various decorative motifs were copied, such as the clusters of three or four small black dots on white within panels, but the discreet cobalt blue knots give way to bold circles and lozenge shapes, many inscriptions are highlighted with cobalt (number 3.3.14), and there is no turquoise in combination with the cobalt. There are certainly turquoise and black on white panel style vessels, but these are a whole separate group and definitively Mamlūk, well summarised by Milwright.²²⁵ There is no need to include them in this catalogue – as although they are diagnostically Mamlūk, they have no place in the Īlkhānid world and therefore there is nothing to compare them with. The potting is less refined, and in many cases clumsy, with the glazes pooling and dripping in large droplets down the exterior. This is mass production on a grand scale.

The baluster jar number 3.3.1 has a twin in the National Museum, Damascus (inventory number A 4547/12016; height 32.2cm).²²⁶ This style of decoration was

²²¹ Riis and Poulsen (1957), 215, figs 729-736.

²²² François (forthcoming), 105, pl 54/8 and 9.

²²³ *Ibid.*, 105.

²²⁴ Sarre (1925), 116, figs 1-10.

²²⁵ Milwright (2008b).

²²⁶ Hayward (1976), 234, cat # 314.

equally popular for *albarelli* and number 3.3.6 is dated to 717/1317-18.²²⁷ The cursive inscription is seemingly a Ṣūfī inscription addressing God - other than the date the following is legible:

*“You have conquered my heart whose structure is broken..”*²²⁸

Although of unknown provenance, it is highly likely to have been in Italy since medieval times as jars as containers or empty vessels were exported to Italy and recorded in trade records,²²⁹ and have been found in archaeological contexts.²³⁰ The base fragments numbers 3.3.8 and 3.3.9 give a good idea of the variety of quality available – both have a siliceous-paste body, but number 3.3.8 is more coarsely potted and decorated in comparison, supporting Mason’s claim that the Fustāt workmanship was inferior. Catalogue number 3.3.10 is dated ‘[something] and forty’ – it is hard to make out what the bracket-like digit after the *waw* could be, perhaps a ‘one’ in numerical form. The hand is cursive and untidy. Catalogue number 3.3.12 is undoubtedly a ‘45’, so this gives a timespan of at least 1317-1345 for this panel style, indicating that tableware fashions were relatively static.

Catalogue numbers 3.3.13 and 3.3.14 demonstrate that the decoration was not entirely non-figural and as in number 1.3.6 animal motifs were included in the vertical panels on the cavetto. Arguably this figural category should be a sub-division of type 3.3.

3.4. Mamlūk Underglaze-painted Geometric

These are all broad, ledge-rimmed bowls with a central geometric motif, but the vertical bands decorating the cavetto are not necessarily geometric. In all these examples there is a sense of experimentation, as if the potter had a pattern book to

²²⁷ Scerrato (1967), 48, fig 49.

²²⁸ Read by Professor Doris Behrens-Abouseif.

²²⁹ Howard (2003).

²³⁰ Saccardo et al (2003), 402, fig 6.

choose from and he went for hitherto untried combinations. They are closely related to Golden Horde types 2.3 and 2.4, and several have the same black, silhouetted leaves and foliage found on numbers 2.3.1-3 and number 2.4.2. For these the exterior decoration is very different with scrolling stylised foliage or the panels of number 3.4.2, which is echoed in the bottom two of the three bowls stuck together, number 3.6.1. The exterior scrolling band on number 2.4.1 is encountered again on the middle bowl of number 3.6.1, and immediately above the base on number 3.5.5, which also shares the use of a reddy-brown for some of the details. Both numbers 3.3.1 and 3.3.2 have a geometric ‘S-band’ design, which is usually restricted to Mamlūk *sgraffito* wares; for example the goblet made by Sharaf al-Abawānī in the Egyptian embassy’s collection in Washington, DC.²³¹ Only the palette has changed, instead of the red and brown on yellow, we have blue and brown on white. In these small images it is difficult to see the brown, for which the potter could well have used the Armenian-bol red of the type 3.1 wares, but not being applied to white slipped relief it has seeped into the siliceous body giving an initial impression of almost black under the glaze.

In their fragmentary state their designs are close to Īlkhānid examples, but when you have a complete vessel and can understand the other decorative motifs, and shapes, then it is possible to distinguish them, and use these shapes and designs as reference points. Perhaps the most important difference is weight – these Mamlūk models are much heavier, and their glazes glossier.

3.5. Mamlūk Underglaze-painted Shells

These are really the same group as the panel style type 3.4, but in order to highlight the shell motif they are dealt with separately. Catalogue number 3.5.1 has the same

²³¹ Atıl (1981), 188-9, cat #95.

border and shape as number 3.4.2, yet the treatment and technical achievements are seemingly wide apart. Turquoise is included in the palette, which is a characteristic of Īlkhānid geometric wares (type 1.6) and Golden Horde flowers and peacock feathers (type 2.4), yet the exterior decoration is totally different. The greenish-black of number 3.5.1 could of course be due to its position in the kiln or the addition of turquoise could have upset the chemical balance. Catalogue number 3.5.2 presents a similar problem in that it has a typical Īlkhānid panel style (number 1.5.1) exterior decorative pattern, though drawn more loosely. Even on the interior the black silhouetted leaves recall those in Golden Horde number 2.4.2. However, although the hemispherical lotus bowl shape is shared between all three, the slightly splayed foot is a Mamlūk characteristic, and as discussed in Chapter 5, shape is significant.

Archaeologically this shell motif is not well attested, although it may well be that many examples await discovery in the pottery stores on the Aleppo citadel, or in forthcoming publications of other sites. One has been published from the Ḥamā finds.²³² The fragment number 3.5.3 belongs to Jenkins' 'Syria' group. If it could be proven that the jar number 3.5.5 was indeed commissioned by Qalāwūn in gratitude for the hospital treating him for a bout of fever in 1283,²³³ this would give an approximate date for its use. Although one should also consider that his son, al-Naṣir Muḥammad, could have commissioned more furnishings for his father at a later date. As already seen in the panel style group, decorative motifs persisted and dates for them can only be approximate.

3.6. Mamlūk Underglaze-painted Basketwork

These are also closely related to Mamlūk panel style, with the exterior designs of number 3.6.1 matching those of numbers 3.4.1 and 3.4.2. Catalogue number 3.4.3

²³² Riis and Poulsen (1957), 214, fig 727.

²³³ Gibbs (2000), 28. Previously published Fehérvári (1995)102-03; and Louisiana Museum (1987), 94-95, #142.

looks as though it had exactly the same interior decoration as bowls 2 and 3 in number 3.6.1, and its prominent spur marks are equalled by the remaining spurs stuck to their interiors. Another base in the MMA collection (number 3.5.5) has the same chequered infill inside the circles formed by the interlacing, which has the spur marks and a central rosette, but the body is much inferior. Although number 3.6.4 has no provenance, it is included to illustrate the plain basket-weave motif. Coincidentally it, too, has the same vegetal exterior band as number 3.3.2, bowl 2 of number 3.4.1 and the bottom register on number 3.5.5.

3.7. Mamlūk Imitation Celadon

At all these fourteenth century centres, Chinese celadon was much in vogue, but if the real thing was beyond average pockets, then the potters happily complied and mass-produced imitations with both siliceous and earthenware bodies, so the market must have been overflowing with these products. It has already been noted above that both Bahgat and Fedorov-Davydov reported that imitation celadons were made alongside the underglaze-painted vessels in the kilns they investigated.²³⁴ In most instances they copied Chinese prototypes faithfully, including a device in the base, which was a hole inside the foot ring and a plaque, usually in the form of a rosette inserted in the tondo, to mask the hole, which in the original was “intended to circumvent the risk of fire-cracks”,²³⁵ without comprehending their function, so they became purely decorative, and the hole inside the foot ring inexplicable.²³⁶ Many examples of the same feature are found in the Aleppo citadel material that will be published shortly by Carswell.

²³⁴ Bahgat (1913), 240; and Fedorov-Davydov (1984), 267, ill 16.

²³⁵ Lane (1957), 9. In footnote 1 he says that although this feature was virtually unknown in European collections, it is well represented in Topkapu Serai, and there is one in Ardebil illustrated by Pope (1956), pl 128.

²³⁶ McPhillips (2009), 189, and 123 for further images; Mikami (1982), 84, Figs 40-41, and 85 for Chinese examples.

The first two examples chosen to illustrate this ware, numbers 3.7.1 and 3.7.2, are the same as pieces excavated by Scanlon in Fustāṭ.²³⁷ Catalogue numbers 3.7.3 and 3.7.4 are earthenware variations. The *albarello* (number 3.7.4), a Mamlūk shape with faceting in lieu of decoration, is an interesting addition to the corpus. Bearing in mind that the thirteenth-fourteenth century material excavated in Fustāṭ is essentially discarded rubbish from Cairo to the north,²³⁸ the three almost complete vessels represent a ‘use and throw’ society that feasted largely on medieval ‘take aways’, as kitchens were expensive to maintain and the fire risk a deterrent.²³⁹ When Scanlon conducted a daily sherd count during his 1968 season he established over a twelve-day period that imitation celadons even outnumbered yellow-brown *sgraffito*, although not *sgraffito* as a whole if you add in the green as well: with a total of 6,917 imitation celadon; 6,223 yellow-brown; and 1,666 green.²⁴⁰ By contrast underglaze-painted wares totalled 389 and Chinese celadon 109. Scanlon concluded that imitation celadon had been in production from the thirteenth century through to the end of the fourteenth century, and was eclipsed by imitation blue and white in the fifteenth century.²⁴¹ He also recorded finding ‘abundant wasters’ indicating a nearby manufacturing site.²⁴² He went on to comment that these imitation celadon wares and their Chinese prototypes were ubiquitous in the Nile valley, at sites from Alexandria up to Wadi-Halfa, a dispersal pattern that exceeded that of the ninth/tenth centuries’ ‘Abbāsīd lustre wares.’²⁴³

²³⁷ Scanlon (1984), 117, pl 3 for the beaker and pl. 4, bottom right, for the base.

²³⁸ Scanlon (1971), 221-2.

²³⁹ Levanoni (2005), 204; Gayraud (in press).

²⁴⁰ Scanlon (1971), 225, Table 1.

²⁴¹ *Ibid.*, 230.

²⁴² *Ibid.*

²⁴³ *Ibid.*

3.8. Mamlūk Black under a Transparent Turquoise Glaze

Black under a turquoise glaze was seemingly not as popular with the Mamlūks, or rather the general populace of Egypt and Syria, judging by the extant examples from excavations, which is surprising considering that on the Aleppo citadel in twelfth- and thirteenth-century Ayyūbid contexts turquoise and black fragments numbered 607 out of a total of 1,187 siliceous-paste wares processed, and by contrast only 152 were underglaze blue and black ones.²⁴⁴ In the Mamlūk levels of the Syrian-French excavations on the Damascus citadel 15.5% of the finewares were black under turquoise, as opposed to 26% blue and black under a transparent alkaline glaze, 20% blue under a transparent alkaline glaze, and 10% imitation celadons.²⁴⁵ The information for Damascus includes fifteenth century material too.

Some museum holdings reflect this trend, but these have already been filtered by the taste of the more modern collector. I understand that in the Benaki Museum collection there are many examples.²⁴⁶ Of the three examples illustrated, catalogue number 3.8.1 reiterates the blue and black on white panel style, and numbers 3.8.2 and 3.8.3 the basket-weave interlace. Figure 5.11 in Chapter 5 includes an almost complete baluster jar without provenance to add to the corpus.

3.9. Mamlūk Underglaze Blue, Black and Red

Red had been prominent in Ayyūbid underglaze-painted wares, both the geometric, vegetal and the figural styles, but by the fourteenth century when there is a recognisably Mamlūk style, it is seemingly restricted to the type 3.1 wares, highlighting the beaks and legs of birds, lotus flower calyces, a horse's saddle and blanket. When the Mamlūks took over in 1250, there is no doubt that the Ayyūbid decorative motifs would have continued and gradually new shapes emerged, the

²⁴⁴ Wade Haddon (in press).

²⁴⁵ François (forthcoming), 26, Table 3.

²⁴⁶ Information supplied by Michael Rogers; have yet to visit the Benaki.

open forms directly related to the Chinese imports. The carinated, biconical bowl, modelled on metal prototypes,²⁴⁷ had seemingly vanished by the fourteenth century. Commentators suggest that the potters moved, either forcibly or willingly, with the Mongol devastations from the 1220s onwards, but this is either supposition or extrapolated from later records of Timur's campaigns at the end of the fourteenth century. The Mongol hordes never reached Fuṣṭāṭ so the Egyptian potters would not have been affected, but they may have been joined by Syrian and Iranian ones and the added competition would have led to greater experimentation and exchanges in ideas. For a time Syria became the cross-roads for refugees, the settlements along the Euphrates were abandoned,²⁴⁸ and later in the fourteenth century under Sulṭān al-Naṣir Muḥammad (r 1292–1340, with two brief interruptions) became isolated fortified military border posts.²⁴⁹ It is known that the pottery workshops at Raqqa and Bālis Meskeneh ceased to function after 1259,²⁵⁰ but it is not known where these potters went to practice their art, most assume Damascus. Aleppo is a candidate, where a new ware was identified on the citadel,²⁵¹ and wasters in the BM collection indicate that siliceous-paste production was well-established there at least by the beginning of the thirteenth century.²⁵² The designs for the Aleppo citadel collection included red in their palette too, but they are very different to these three examples. These three reveal a degree of experimentation that must have been in process. There is no discernible Īlkhānid influence on any of these pieces, they illustrate an independence, such that it is impossible to group them with other categories. I have only grouped them together on the basis of their shared palette.

²⁴⁷ Tabbaa (1987), fig 2.

²⁴⁸ Meinecke (1995), 413.

²⁴⁹ Bianquis (1995), 396.

²⁵⁰ Thiriot (forthcoming); Milwright (2005), 200.

²⁵¹ Gonnella (1999).

²⁵² Jenkins-Madina (2006), 108, W132.

CONCLUSION

The focus of this study is Īlkhānid siliceous-paste production, with the exception of lustre wares, and comparisons with her neighbours' styles, in an attempt to establish who influenced whom. Lustred cobalt blue vessels had been popular in Syria and Egypt up until the Mongol invasions in 1259, and seemingly continued to be so, see the two large Mamlūk *albarelli* in the BM collection.²⁵³ The finds on the Damascus citadel do not reflect this though, in that only fragments of six vessels were found in a post 1260 context.²⁵⁴ The Īlkhānids also made similar vessels in their own forms.²⁵⁵ What is missing from the Mamlūk repertoire though is *lajvardīna*. I have located one tiny fragment from the Italian excavations at the castle of Shawbak (present day Jordan),²⁵⁶ which awaits publication. There are two tile fragments in the BM's storage drawers said to have come from Fuṣṭāṭ, donated by Dr Walter Hildburgh, without any further details.²⁵⁷

What this catalogue should demonstrate is both the discernible differences and the similarities between the production centres, and their distinguishing features. What it cannot give is precise dating, bar the odd dated fragment or vessel. What is evident is the longevity of these styles. For example in the Golden Horde where sites such as Tsarevo are relatively short-lived, the excavators imply that what we recognise as 'typical Golden Horde' products were in use throughout the occupational period, roughly sixty-seventy years. This could mean a lack of good stratigraphy to enable the excavators to be so precise, but as far as I am able to

²⁵³ Hayward (1976), #312 and 313, 33cm and 36.2cm, respectively.

²⁵⁴ François (forthcoming), 26, Table 3.

²⁵⁵ Kiani (1978), #109.

²⁵⁶ Email correspondence with Micaela Sinibaldi, December 2008. I met her in Amman in October 2011 and she reported that she is no longer working for the Florence University team working at Shawbak and never had this fragment analysed.

²⁵⁷ These are #1924,0414.79 - around a quarter of a cobalt blue hexagonal tile with part of a four-clawed dragon in the style of the Takht-i Sulaymān ones; and #1924,0414.80 - most of a tiny diamond-shaped turquoise tile with traces of a red floral decoration. These are both in Polestor 4, drawer 2, seen on 24.7.2012.

ascertain, modern techniques are now practised and there is no cause to doubt their conclusions. Sadly this is not the case for some of the Iranian sites visited, such as Sulṭāniyya. For Mamlūk vessels we have a time span of at least thirty-eight years for the panel style with the Naples *albarello* and several ‘44’ and ‘45’ bases, and for the Īlkānid *lajvardīna* around a hundred years between the tiles at Takht-i Sulaymān, the two dated bowls (numbers 1.9.1 and 1.9.2) and the mausolea at Samarqand.

With regard to the ‘imitation Sultanabad’ (types 3.1 and 3.2) style we do not know when it appeared. In a paper given at a 1995 Mongol Art Conference in Edinburgh, Rachel Ward argued convincingly in favour of Mamlūk art not being influenced by Īlkhānid decorative themes until after the so-called Treaty of Aleppo was signed between the two powers in 1322-23.²⁵⁸ At the same conference, O’Kane presented a paper on the Īlkhānid vizir, Tāj al-Dīn ‘Alīshāh’s, mosque in Tabriz, as reported on by the Mamlūk ambassador Aytamish al-Muḥammadi’s anonymous secretary or *dawadār*, who was part of the 1322-23 embassy.²⁵⁹ The visual impact of this impressive monument, with its towering *īwān* and minarets, supposedly commissioned to outdo the famous Sasanian arch at Ctesiphon, inspired Aytamish to invite the builders to Cairo, which set the precedent for “a short-lived vogue for tile mosaic.”²⁶⁰ But, as Rogers had already discussed in relation to Mamlūk dependency on the arts of Iran at this time,²⁶¹ there is little evidence for this vogue remaining and citing the ceramic revetment on the minarets of the Mosque of al-Naṣir Muḥammad on the Cairo citadel (1318-1335), commented “we find no special resemblance to anything executed in Persia at the time.”²⁶² Other than this physical evidence he goes on to explain that the information comes from al-Maqrīzi, writing a century later.

²⁵⁸ Ward (forthcoming), 4.

²⁵⁹ O’Kane (forthcoming); and Behrens-Abouseif, *The Minarets of Cairo*, (London, 2010), 155-159.

²⁶⁰ *Ibid.*, 7 of MS, note 47.

²⁶¹ Rogers (1972), 386.

²⁶² *Ibid.*, 387.

Meinecke did identify thirteen fourteenth century examples of tile mosaic, indicating more Persian activity than hitherto thought.²⁶³ Certainly the only Iranian ceramics found at any of these sites during the pre-Mongol and Īlkhānid periods are *mīnā`ī* and lustre wares, bar catalogue number 1.1.13.²⁶⁴

It is possible that it was these imported ceramic tile specialists that inspired the Fustāṭ potters to change their decorative styles, which they adapted, continuing to use their own long-established palettes, to create a fusion of Mamlūk–Mongol designs. Irwin suggests that this did not happen until 1328, following Aytamish’s 1326 mission and the deaths of the Īlkhānid and Mamlūk renegades, Timūrtash and Qarasunqūr, respectively, and a further exchange of embassies in 1328.²⁶⁵ He surmises that it was after this that Īlkhānid Iran became a cultural influence on the sultanate, and, possibly after the death of Abū Sā`īd in 1335, more artists were attracted by Mamlūk patronage. However, there is no documentary source to support such an hypothesis.

The influences and connections between Īlkhānid Iran and the Golden Horde potters appear to be more closely connected, which is ironic when you learn they had continuous territorial scraps. However, Iakubovskii, who wrote extensively on Golden Horde culture and worked for many years in Kunya Ürgench and at other Khwārazm sites, viewed the ‘Golden Horde culture’ as “nothing other than the culture of Khorezm imported to the Volga.”²⁶⁶ When you consider that the Khwārazmshāhs were deeply rooted within the Iranian world then there is an attraction to this hypothesis. It still does not account for diagnostic shape differences such as T-rim bowls and rosewater ones, but it does account for common taste such

²⁶³ Meinecke (1976-77), 85-144.

²⁶⁴ For example, Riis and Poulsen (1957), 120-27; Aleppo citadel – two *mīnā`ī* and six lustre fragments identified to date – see Wade Haddon (in press – 7ICAANE), fig 9.

²⁶⁵ Irwin (1981), 119.

²⁶⁶ Tolstov (2005), 297.

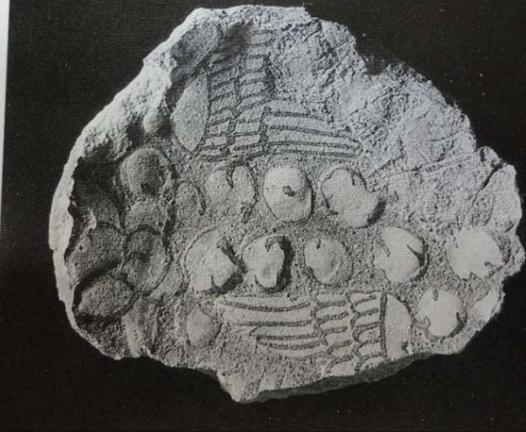
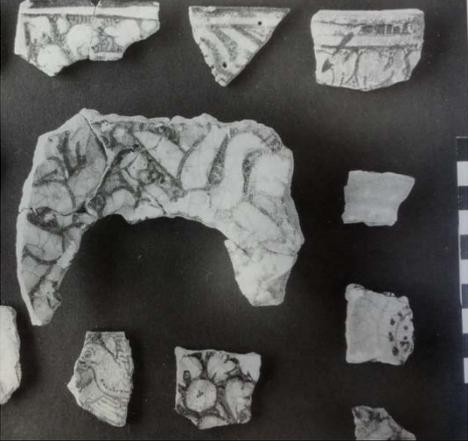
as *lajvardīna* and the presence of Persian poetry on both tiles and vessels, besides the usual Arabic blessings such as *iqbāl* or 'prosperity'. Although the khāns of the Golden Horde were politically allied with the Mamlūk sultans, these tablewares should not be seen as reflecting their taste, rather they reflect that of the successful urban merchant classes who had a long ceramic tradition. The establishment of new cities on the Volga probably attracted these merchants from Khwārazm, along with many other nationalities. Ibn Baṭṭūṭa describes the multi-ethnicity of the merchants' quarters at Saray, and marvels at the extent and wealth of the city.²⁶⁷ Whether the potters were installed by force or their own free will is unknown.

²⁶⁷ Mackintosh-Smith (2002), 136; Allsen (1997b), 41-42.

ILLUSTRATED CATALOGUE

All scales in the author's images are metric and each square is one centimetre

1. 1. Īlkhānid Coloured-ground Grey Wares

	
<p>1.1.1 - Hemispherical bowl on low ring foot. LACMA collection, M.2002.1.173. Diameter 22.86cm; height 10.95cm. No provenance.</p>	<p>1.1.2 - Hemispherical bowl on low ring foot. LACMA collection, M.73.5.297. Diameter 21.27cm; height 8.89cm. No provenance.</p>
	
<p>1.1.3 – Base fragment from Bīsītūn – found in the German excavations of the Mongol building, plate 50 in Lushey-Schmeisser (1996).²⁶⁸ Found in a 14th century context.</p>	<p>1.1.4 – Several rim and base fragments from Bīsītūn – from the German excavations, also copied from plate 50.</p>
	<p>1.1.5- A base fragment from Shelkovnikov’s excavations at Ānī, Turkey. After Shelkovnikov 1957.²⁶⁹</p>

²⁶⁸ Lushey-Schmeisser (1996), 233, pl. 50, #11.

²⁶⁹ Shelkovnikov (1957), pl. 38.

	
<p>1.1.6a – Fragment of a closed-form jar or jug from Takht-i Sulaymān, Berlin Museum collection from the German excavations in the 1970s – now in Box TS 145.</p>	<p>1.1.6b – Interior of this closed-form fragment, colourless glaze without decoration.</p>
	
<p>1.1.7a - Rim fragment from Takht-i Sulaymān, Berlin Museum box TS 145. This lotus bowl had a diameter of approximately 21cm.</p>	<p>1.1.7b – Rim fragment exterior with arcaded decoration in relief.</p>
	
<p>1.1.8a - Rim fragment from Takht-i Sulaymān, Berlin Museum, box TS 145 – possibly part of same lotus bowl as number 1.1.7, but they do not fit.</p>	<p>1.1.8b - Exterior of the bowl.</p>

	
<p>1.1.9a – Base fragment which is badly eroded and iridized obscuring decoration. Williamson number 1 – from Ashmolean collection.</p>	<p>1.1.9b - Although this base has no exact findspot, it definitely came from his Fārs survey.</p>
	
<p>1.1.10a – Fragments from J-C Gardin’s Sīstān collection, Guimet Paris. Hackin never indicated the exact provenances for this survey collection.</p>	<p>1.1.10b – Exterior with traces of relief arcading. These all have museum accession numbers that do not relate to any find spot.</p>
<p>1.1.11 - Fragment from Golombek, Mason and Bailey (1996), plate 10, p. 176; it is number SS 18 from IsMEO’s Sīstān survey collection. Clearly a type 1.1 example, Mason confirms that it is pre-Timurid and goes on to say: “It may be noted that the one centre definitely identified for the region, at old Zāhidān, was probably also making pottery only up until Timur’s campaigns in the region.”²⁷⁰ He likens its paste to that of ‘Tell Minis’, made in Syria at least three centuries before.</p>	

²⁷⁰ Mason (1996), 47.

	<p>1.1.12 - Sīstān, rim fragment from Sir Aurel Stein's 1920s survey of the Helmand Basin. KG = Kala'āt-Gird,²⁷¹ a 'round fort'. Stein did not visit the Afghan side on this survey.²⁷² Whereabouts unknown.</p>
	
<p>1.1.13a - A fragment in the Ashmolean collection, number P.645. With the exception of the turquoise blemish, doubtless caused by a careless drop of copper oxide or an inclusion in the clay, it is identical in shape and body to number 1.1.10a above.</p>	<p>1.1.13b - Exterior view of P.645²⁷³ - note the typical arcading. Registered as being from Fustāt.</p>

²⁷¹ Stein (1928), plate CXVIII, KG 0143.

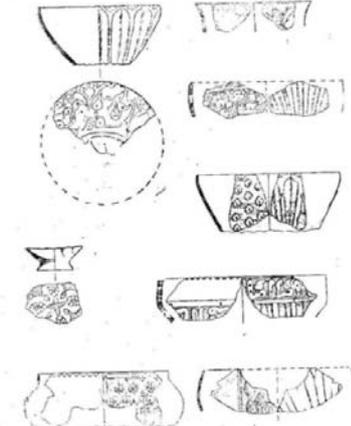
²⁷² *Ibid.*, 908.

²⁷³ Many thanks to James Allan, Aimée Payton and Alessandra Cereda for finally solving the mystery of the Ashmolean's 'hieroglyphics' for the P numbers, 14.5.2012.

1.2. Īlkhānid Coloured-ground Grey Relief with Blue

	
<p>1.2.1a - A so-called 'Bojnurd' bowl with pseudo-epigraphic inscription in the Tehran Islamic Museum, inv no 21507.</p>	<p>1.2.1b - Profile of 21507, diameter 19.8cm. This was exhibited at the <i>Festival of Islam</i> exhibition.²⁷⁴ Photographed on display in Tehran.</p>
	
<p>1.2.2a - Three fragments from Reitlinger's survey at Abū Sudayra, Iraq, now in Ashmolean.</p>	<p>1.2.2b - Reverse of Reitlinger's three fragments. Ashmolean numbers P. 9901, P.9900 and P. 9886.</p>
	
<p>1.2.3a - Base fragment + 8231 from Williamson's Fārs/Kirmān survey, found in medieval Sīrjān, recorded by Priestman.</p>	<p>1.2.3 b - Reverse of Williamson's base fragment +8231. Inspected on a visit to Durham University where it is stored.</p>

²⁷⁴ Hayward (1976), # 366.

 <p>Рис II. Кашпоны керамики XIII–XIV вв.</p>	<p>1.2.4 - Profiles of similar wares from various sites to the north of Bojnurd in present-day Turkmenistan (mainly Dehistan), after Masson.²⁷⁵ Alastair Northedge, who has worked at Dehistan recently reported no such wares in his survey.²⁷⁶</p>
 <p>1.2.5 – Lotus bowl in Timur Museum divided into quadrants by zigzag infilled stripes. Each quarter is decorated with a series of tear drops or commas, as on Golden Horde vessels, but the careless stippling and squiggly infill between them is closer to Iranian products.</p>	 <p>1.2.6 - Lotus bowl in Timur Museum with a flying duck in scrolling foliage in tondo, a band of lozenges in the cavetto and a repeated band of <i>iqbāl</i> (prosperity) in relief just below the rim. Inv no a-49-618. Diameter 18cm; height 8.5 cm; excavated in Samarqand.²⁷⁷</p>
 <p>1.2.7a - This bowl in the V&A collection (507.1896) represents a group always classified as type 1.1, as if the blue dots to highlight the fishes' eyes did not exist.</p>	 <p>1.2.7b - Profile of V&A 507.1896. Note the sparing use of slip-trailed white relief. Diameter 20.6cm; height 9.8cm.</p>

²⁷⁵ Masson (1974).

²⁷⁶ Northedge, email 8.5.2012.

²⁷⁷ First published by Pugenchova (1960), # 124; Sumner and Petherbridge (2004), 122.



1.2.8a - A one handed jug, with standing bustards and a hare. Fitzwilliam inv no C.505-1991, ex-HS Reitlinger collection. Height 24.5 cm; width 17.2cm.



1.2.8b - Detail of a hare on Fitz C.505-1991. Image taken from the Fitzwilliam website.



1.2.9a - Finely potted bowl in the Fitzwilliam collection, inv no C.5-2003. Originally catalogued as Golden Horde.



1.2.9b - Profile of C.5-2004. Diameter 20.7cm; height 9.5cm.



1.2.10a - Small clay bowl with grey slip and concentric bands of 'tear drops' decorating the interior. Bīrjand Museum number 425.



1.2.10b - Profile of number 425. Diameter 15.8cm; height 7.5cm. No provenance.



1.2.11a – Williamson’s sherd from his Fārs/Kirmān survey, labelled number 2. This is to show the basic mechanics of the slip-trailed design before anything else has been added.



1.2.11b – Exterior showing the simple arcading. The original glaze has been totally eroded from both sides. Ashmolean collection.



1.2.12 - Part of a finely potted clay bowl found in the Juvayn area, in a village called Enqelāb when excavating for a cesspit. Sherd collection included a number of underglaze painted geometric wares. Seen in ICHTO Mashhad storage, Robāṭ-i Torāq on the road to Nishapur. Although strictly speaking this is another sub-category as the potter has used a transparent pale turquoise glaze, the techniques are the same as for the others in this group.



1.2.13 – Body fragment of a closed form, with undecorated slipped white interior. The exterior glaze has been eroded, leaving the slip over a pinkish siliceous-paste body. The grey ground has been applied rather carelessly, but the cobalt blue and turquoise dots are in character. Traces of an inscription. Berlin Museum collection, excavated at Takht-i Sulaymān, TS Box 146, I.50/71.

1.3. İlkhānid Polychrome Coloured-ground

	
<p>1.3.1 – Large <i>albarello</i> in the V&A collection, inv no C.219-1912. Diameter at rim 17.8cm; height 33cm. Image from website.</p>	<p>1.3.2 - Large <i>albarello</i> in the BM collection, inv no 1952 2-14 5. Diameter at rim 11.4cm; height 33cm. Image from website.</p>
	
<p>1.3.3a – Base fragment in the Louvre, MAO 936.198, ex Kiefer collection. Length 20.5cm; height of foot 1.9cm.</p>	<p>1.3.3b – Exterior of MAO 936.198. Note traces of black dots above the two solid bands and cobalt larger dots over the black ones.</p>



1.3.4a –Body fragment of a T-rim bowl from Takht-i Sulaymān, now in Berlin Museum box TS 121, I. 13-69.



1.3.4b – Exterior of the bowl decorated with slip relief arcading typical of these types, with an inscription above also in relief on a cobalt ground.



1.3.5a –Base fragment from Takht-i Sulaymān, Berlin Museum, TS box 121, I.13-69. Although it is difficult to see, there is a small hare outlined in black seated in foliage, roughly coloured in cobalt and turquoise on white.



1.3.5b – Exterior of the base with no signs of decoration, a small foot ring and its highly iridized condition masks any details.

	
<p>1.3.6 – Polychrome lobed bowl from the V&A collection, inv no C.10-1960. Diameter 20.8cm; height: 9.1cm Image taken from the website.</p>	<p>1.3.7 – Polychrome bowl with interlace design forming central rosette from the Freer Gallery, inv no S1997.129. Diameter 21.2 cm; height 10cm. Image taken from website.</p>
	
<p>1.3.8a – T-rim bowl dated 716/1316 in the Tareq Rajab Museum, Kuwait, inv no TRM – CER563TSR.</p>	<p>1.3.8b – Profile of T-rim bowl.²⁷⁸ Diameter 33cm; height 14.5cm. After Fehérvári (2000).²⁷⁹</p>
	
<p>1.3.9a – Fragment of an extremely fine broad, ledge-rimmed dish from Sir Aurel Stein’s survey in Sīstān, from Burj-i Afghan.²⁸⁰</p>	<p>1.3.9b – Reverse of this flat-rimmed dish fragment. Max dimensions 2.5 x 2.5 cm. In BM storage, cp 3, drawer 26, inv no 1928, 1022.150.</p>

²⁷⁸ Fehérvári (2000), 220, figs. 283 and 284.

²⁷⁹ If I could handle this piece I might reassign it to type 1.2 – the quatrefoil motif in the band encircling the tondo and in the four larger ones in the cavetto is the same as that on the neck of number 1.3.8a.

²⁸⁰ Stein (1928), 937 – not illustrated.

1.4. Īlkhānid Black under a Transparent Turquoise Glaze

	
<p>1.4.1 – Shelves full of black under turquoise wares in the old ceramics galleries at the V&A displaying the variety of shapes, sizes and decoration encountered.</p>	<p>1.4.2 – Bulbous baluster vase in the LACMA collection, inv no M2002.1.164. Height 24.5cm; diameter of mouth 10.5cm. Ex-Kelekian (1910) collection, no. 33.</p>
	
<p>1.4.3a – A T-rim bowl painted with raindrop-shapes infilled with zigzags and linked with a strapwork interlace, V&A inv no C.59-1941. No provenance. Diameter 14.6cm; height 6.7cm.</p>	<p>1.4.3b – Exterior of V&A C.59-1941, decorated with simple double vertical lines below a thick black rim band. Image from the website.</p>
	
<p>1.4.4a – A T-rim bowl decorated with scrolling foliage, and the leaves in-filled with zigzags and the fruits with peacocks' eyes. V&A inv no 41-1908. Diameter 20.6cm; height 9.5cm.</p>	<p>1.4.4b – Profile of V&A 41-1908. Its label says it was found near Sultanabad. Image from the website.</p>

	
<p>1.4.5a – Dated T-rim bowl in the V&A, inv no Circ. 350-1929: “in <i>rabi</i>’ (?) <i>al-awwal</i> the year 666/(Nov-Dec 1267).”²⁸¹ No provenance.</p>	<p>1.4.5b – Profile of Circ. 350-1929. Diameter 14.6cm; height 6.4cm.</p>
	
<p>1.4.6 – Box TS 146 of the Takht-i Sulaymān material in the Berlin Museum reserves.</p>	<p>1.4.7 – T-rim fragment with a repeated ‘S’ design along the top of the flat rim; from TS 146 I.50/71, Berlin Museum.</p>
	
<p>1.4.8 – T-rim fragment with part of a fish swimming along the flat rim; from TS 146 I.50/71, Berlin Museum.</p>	<p>1.4.9 – Exterior of a closed form body fragment with swimming fish; from TS 146 I.50/71, Berlin Museum.</p>

²⁸¹ The website has no indication of date, but Watson (2004), 392, #Q22 and repeated in Watson (2006), 340, read it as “Rabi I 676/August 1277.” Manijeh Bayani has read it as above - email 11.5.2012.



1.4.10 – Body fragment with zigzag fillers and scrolling foliage, TS 146 I.50/71 Berlin Museum.



1.4.11 – Body fragment with the 'coiled millipede' motif, TS 146 I.50/71, Berlin Museum.



1.4.12a – Body fragment with the peacock's eye motif infill of leaves on a body fragment from box TS 149, Berlin Museum.



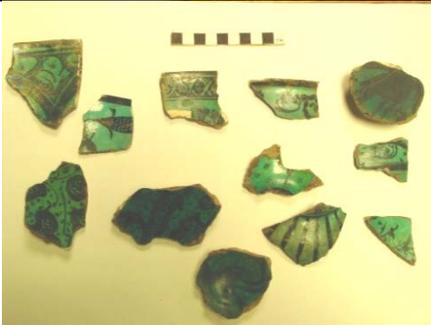
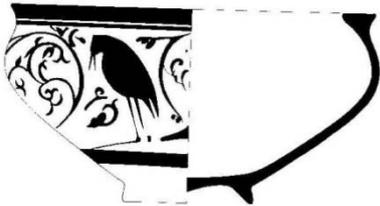
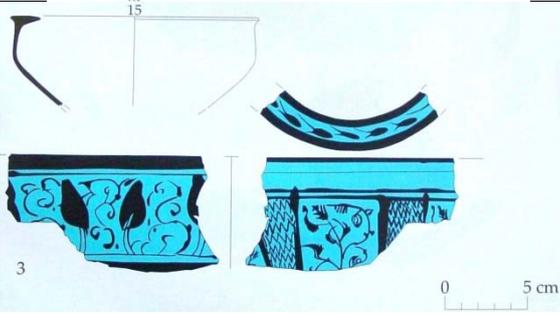
1.4.12b – Exterior scrolling foliage decoration of plate 4.11a.



1.4.13 – T-rim bowl profile, ex-Reitlinger collection, Ashmolean inv no 1978.1587, with pseudo-epigraphic band below rim and the 'hairy flying object' motif below the carination, and a band of fish swimming clockwise below that. Purchased from Moussa and Meskene, London in 1937. Diameter 27.8 cm.



1.4.14 – T-rim bowl ex-Reitlinger collection, Ashmolean inv no 1978.1632, with four flying game birds separated by a cruciform panel dividing the interior into four equal sections. Purchased from Kevorkian, Paris 1939. Diameter 22.3cm.

	
<p>1.4.15a – Reitlinger sherds in the Ashmolean from Abū Sudayra, Iraq.²⁸²</p>	<p>1.4.15b – Exterior images of the Reitlinger Abū Sudayra sherds.</p>
	<p>1.4.16 – Profile of a bowl in the Prime Ministry of Iran’s collection from Takht-i Sulaymān. After Kiani (1980), plate 115.</p>
	<p>1.4.17 – Material from the American excavations at Ḥasanlū, north-west Iran, after Danti (2004, colour plate E). The fourteenth century levels of this excavation yielded abundant black under turquoise fragments and <i>lajvardīna</i>, but no coloured-ground examples.</p>
	<p>1.4.18 – <i>Albarello</i> in the BM collection with peacock’s eye motif between the triangular frames and a pseudo-epigraphic band above, inv no 1915 6-19 4. The bulbous lower section, splayed foot and decoration are typically Īlkhānid. Height 16.5cm; mouth diameter 7.2cm; foot diameter 6.4cm.</p>

²⁸² In box barcode no ODS4-3064_1.JPG.



1.4.19 – A large water jar from the Tūs excavations, decorated with applied bosses, ring handles, incised scrolling lines and black under turquoise glazed fragments. On display at a special exhibition in Mashhad, September 2003. No dimensions – around 100cm in height.



1.4.20– An unglazed Tūs fragment with details of impressed turquoise and black fragments completing the decoration. From the ICHTO Ribāṭ-i Ṭorāq storage, Mashhad. Found in Enqelāb village, Juvayn.



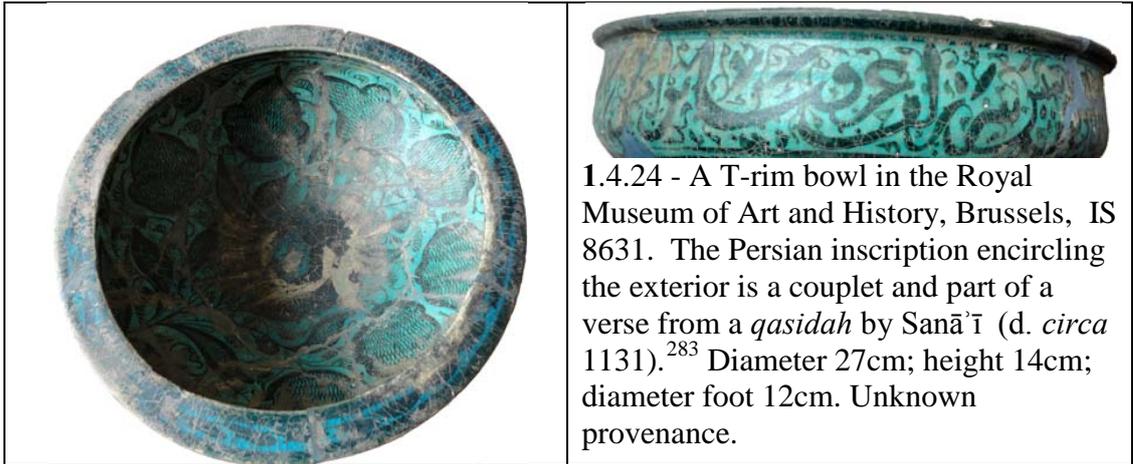
1.4.21 – T-rim fragment with slip-relief inscription band on the exterior on a black ground. The transparent turquoise glaze has almost worn off. In Berlin Museum, TS 146 I.50-71.



1.4.22 – Double-handled beaker, based on a 12th century metal prototype, *mīnā`ī* and lustre posset-pots. Louvre Museum, inv no OA 6172. Mouth diameter 10.1cm; height 12cm; base diameter 7.7cm; height foot 2.2cm. Image from website, handled 2007.



1.4.23 – Fragmentary handle with a feline head possibly from a double handled beaker. Excavated at Takht-i Sulaymān, box TS 149 in the Berlin Museum collection, I.13/69.



1.4.24 - A T-rim bowl in the Royal Museum of Art and History, Brussels, IS 8631. The Persian inscription encircling the exterior is a couplet and part of a verse from a *qasidah* by Sanā'ī (d. *circa* 1131).²⁸³ Diameter 27cm; height 14cm; diameter foot 12cm. Unknown provenance.

²⁸³ Read by Manijeh Bayani, 28.5.2012.

1.5. Īlkhānid Underglaze-painted Panel Style

1.5.1. Type 1

	<p>1.5.1.1 – A rim fragment from Williamson’s Desht-i Deh material in the Ashmolean – the vertical lines are the cobalt ones that have become a blacky-green colour once the glaze that protected it had been destroyed by salts in the ground. This is a common characteristic for cobalt, and can confuse the archaeological record.</p>
	<p>1.5.1.2 – Box of Reitlinger’s Kish area survey material in the Ashmolean. He described these as using the “famous Damascus blue.”²⁸⁴ There is one base fragment in the centre bottom row that is a provincial copy of no 1.5.2.2.</p>
	
<p>1.5.1.3a – Bowl with incurving rim decorated with four ogival foliated panels framed in black bands with <i>sgraffito</i> scrolls and a central square with foliage on a blue ground. The exterior space is a cross-hatched cobalt blue ground. Fitzwilliam C.541-1991. Ex HS Reitlinger collection.²⁸⁵</p>	<p>1.5.1.3b – Profile of Fitzwilliam C.541-1991 with panels of black dots and squiggles on white framed by double vertical cobalt stripes, below a key pattern band, imitating metalwork designs on Īlkhānid cups. See no 1.5.1.8. Diameter 18.5cm; height 9cm. No provenance.</p>

²⁸⁴ Reitlinger (1935), 210.

²⁸⁵ Sotheby’s (1986), 44, fig 151.

	
<p>1.5.1.4a – Full section of a small bowl excavated on the east side of Öljeitü’s tomb at Sulṭāniyya. No specific find spot.</p>	<p>1.5.1.4b – Exterior of Sulṭāniyya excavated fragment. Diameter c.16.3cm; height 8.2cm; foot diameter 5.7cm.</p>
	
<p>1.5.1.5a – Hemispherical bowl with six-petalled flower in tondo framed by ogival foliated panels. Ex Reitlinger collection bowl in the Ashmolean, inv no 1978.1603.</p>	<p>1.5.1.5b – Profile of Ashmolean 1978.1603 with a Persian inscription below the rim. Diameter 21.3cm; height 8cm.</p>
	
<p>1.5.1.6a – A decagonal stem-cup in the V&A collection, inv no C.750-1909. According to the register it was “found on the site of a ruined city near Sultanabad, now Aragh in Iran.”</p>	<p>1.5.1.6b - Profile of C.750-1909. Diameter 13.7cm; height 8.9cm. Half of the pedestal base is missing and has been repaired with plaster. Image taken from website.</p>

	
<p>1.5.1.7 – A T-rim example in the Freer Gallery, inv no 1907.183. Diameter 29.3 cm; height 15.4. No provenance. Image taken from website.</p>	<p>1.5.1.8 – An incised and inlaid bronze stem-cup sold at Christie’s.²⁸⁶ The top band just below the rim is probably the prototype for the decoration on the exterior of numbers 1.5.1.3b-6b. Diameter 14cm.</p>

1.5.2. Type 2

	
<p>1.5.2.1a – panel style with a central interlace design – Ashmolean inv no 1978.1609. Bought from Moussa and Meskene in 1937, and said to be perfect because it was sealed in a sand-filled jar.²⁸⁷ In other words it was part of a hoard probably found near Sultanabad/Aragh.</p>	<p>1.5.2.1b – Profile of Ashmolean inv no 1978.1609 with the typical exterior design for this type – alternating double vertical lines of cobalt and black on white below a thick band of black. Diameter 34.1cm; height 7.8cm; foot diameter 14.5cm.</p>
	
<p>1.5.2.2a – Base fragment from the Berlin Museum’s Takht-i Sulaymān collection, TS 121 I.13.69</p>	<p>1.5.2.2b – Exterior of base, with traces of the typical alternating vertical cobalt and black lines.</p>

²⁸⁶ Christie’s (2008), lot 117.

²⁸⁷ As written by Reitlinger in his card index now housed in Ashmolean.

1.5.3. Type 3



1.5.3.1a



1.5.3.1b



1.5.3.1c

Diameter 20.8cm; height 10.2 cm; foot diameter 6.2cm; foot height 1.9 cm.

This is a fine example of an Īlkhānid lotus bowl. It has a few plaster infills and a little overpainting. The intersecting lines that divide the interior space are cobalt blue and turquoise outlined with thin black lines. Has diagnostic ‘nipple’ inside foot. Ex-Reitlinger, Ashmolean inv no 1978.1650. Bought from Garabed in 1925.



1.5.3.2 – A cockerel-headed ewer formerly in the HS Reitlinger collection, now Fitzwilliam inv no C.454-1991. Diameter c.15.5cm; diameter of foot ring 8.1cm; height 28.5 cm. No provenance.²⁸⁸



1.5. 3.3 – A typical Īlkhānid globular jar with slightly splayed foot ring. V&A inv no circ.28-1933. Diameter below shoulder 22.2cm; height 26.7cm. No provenance. Image taken from the website.



1.5.3.4 – Base fragment from Takht-i Sulaymān excavations, in Berlin Museum, TS 121, I.13/69.



1.5.3.5 – Base fragment from Takht-i Sulaymān excavations, in Berlin Museum, TS 121, I.13/69.

²⁸⁸ Sotheby's (1986), 24, lot 107 – no image.

	
<p>1.5.3.6 – Body fragment from Takht-i Sulaymān excavations, in Berlin Museum, TS 121, I.13/69</p>	<p>1.5.3.7 – Base fragment from Williamson’s excavations at Dasht-i Deh, Kirmān Province, now in the Ashmolean.</p>
	
<p>1.5.3.8a - Base fragment from Williamson’s excavations at Dasht-i Deh, Kirmān Province, now in Durham University store.</p>	<p>1.5.3.8b – Exterior. Both 1.5.3.7 and this one have siliceous-paste bodies, but not as finely potted or decorated as the Takht-i Sulaymān examples, which suggests another production centre.</p>
	
<p>1.5.3.9a – Ayīz T-rim bowl from Peter Willey’s 1960s survey. This is extremely finely potted with a fine white body.</p>	<p>1.5.3.9b – Base and exterior of the Willey Ayīz T-rim bowl. Diameter 19.5cm; height 9.7cm; foot diam 7cm.</p>



1.5.3.10 – *Albarello* that is almost Mamlūk in shape, and even the trefoil leaf in panels on the neck are too, yet the more curvaceous lower body displays Īlkhānid characteristics. The shoulder has a pseudo-epigraphic band in black on a white ground. The turquoise vertical panel is another diagnostic. Fitzwilliam inv no C.74-1935, ex Frank Brangwyn collection. Height 26.2cm; width 14.4cm.



1.5.3.11 – Hemispherical lotus bowl in the MMA, inv no 10.44.5, diameter 17.1cm. According to its website entry it's from Syria, but this is too finely potted for Syrian products and meets all the criteria for Īlkhānid production, sharing exactly the same shape as no 1.5.3.1 – including the 'nipple' inside the foot. Added to this, Jenkins tested it with her Mamlūk samples alongside a 'real Sultanabad' example and found that the two shared identical clay sources which differed from all the others,²⁸⁹ and so by inference this piece is Īlkhānid.

²⁸⁹ Jenkins (1984), 104.

1.6. Īlkhānid Underglaze-painted Geometric

	
<p>1.6.1 – Geometric bowl in the Asian Art Museum collection, inv no B60P1962, with the typical Khurasani blue and black on white decoration and the cloud-scroll exterior motifs. Formerly in the Brundage collection. Images from website. Diameter 27.9cm; height 7.6cm.²⁹⁰</p>	<p>1.6.2 – Khurasani bowl in the Tehran Islamic Museum collection, inv no 4457. Note the same cloud-scroll motif, so-called from its appearance on Chinese 14th century wares. Diameter 29.6 cm; height 8.7 cm.²⁹¹</p>
 <p>a</p>	 <p>b c</p>
<p>1.6.3a – Bowl with a central pentagon within another encircled by a band of crosshatching, and series of asymmetric shapes in the tondo with pseudo-epigraphic motifs. Flat rim also crosshatched in cobalt and divided by seven turquoise rectangles. MMA, inv no 1971.21. Images from the website.</p>	<p>1.6.3b-c – Exterior of MMA inv no 1971.21 and profile. According to Ettinghausen it is from Juvayn.²⁹² The exterior has a repeated ‘S’ pattern divided by double cobalt vertical lines is an alternative decoration for this type.</p>

²⁹⁰ Published Wade Haddon (2004a).

²⁹¹ Karimi and Kiani (1985), 262-63, profile and image.

²⁹² Ettinghausen (1973), fig. 3.

	
<p>1.6.4 – A fragment from Isfarāʾīn, collected during a survey by the Bojnurd Museum. Same quality siliceous-paste body as the others in this series. A thin section was viewed under a X10 magnification microscope at the RLAHA Oxford, which confirmed its body fabric. See text.</p>	<p>1.6.5a – Fragments of provincial copies of this ware, with coarser siliceous-paste bodies and crudely executed geometric decoration. The alkaline glaze is highly iridized. Found at Enqelāb, Juvayn area, when excavating prior to installing a cesspit for the village. Now in Mashhad ICHTO storage.</p>
	
<p>1.6.5b – Detail of a tondo showing two points of a cobalt blue star with three dots inside the triangle as in the Asian Art Museum bowl and the Isfarāʾīn fragment.</p>	<p>1.6.6a-b – Guimet Paris Sīstān fragment from J Hackin’s 1930s surveys.²⁹³ Gardin classified this as Timurid, but on the basis of comparisons with Golden Horde material this should be revised. The exterior design is the same as that on number 1.6.3. The cobalt vertical stripes have discoloured. Diameter of foot 6.8cm.</p>

²⁹³ Musée Guimet (2002), 79.

	
<p>1.6.7a– Another Guimet Paris Sīstān fragment from J Hackin’s 1930s surveys.</p>	<p>1.6.7b – Exterior decoration with an elaborate band of ‘S’ motifs divided by a single vertical cobalt line.</p>
 <p>Image taken from website, object handled in 1999</p>	<p>1.6.8 – Broad rimmed bowl, same shape as no 1.6.3, with rather sketchy decoration of a stylised flower in the centre and alternating panels radiating from a framing circle and an enigmatic, cursive Persian inscription in the tondo reads: ‘As long as the soup is good, do not worry if the bowl is pretty.’ The rim has a bold cobalt blue zigzag interlacing with a thin black one with thicker dots at each apex. There is a distinct ‘nipple’ inside the foot. The bowl is dated 779/1377. MMA inv no 1970.28. Diameter 30.3cm; height 8.1cm; diameter of foot 8cm; ht of foot 1.5cm. Bought from Anavian.²⁹⁴</p>

²⁹⁴ Jenkins (1983), 31 #34; Golombek et al (1996), NM 10, pl 14, note 90 – p 161; Whitman (1978), Fig 1.

1.7. Īlkhānid Underglaze-painted Striped

	
<p>1.7.1 – Small <i>albarello</i> with vertical blue stripes and horizontal black band around the neck with a pseudo-epigraphic band scratched into it, revealing the fine white siliceous-paste body. The body shape is not typical. Height 19cms. Ex Reitlinger collection, Ashmolean inv no 1978.2234; bought Garabed 4.10.1950.</p>	<p>1.7.2 – Biconical bowl on display in the Berlin Museum, I. 3/60. Labelled as being 14th century. These carinated bowls were popular in the 12/13th centuries, but thought to have gone out of fashion by the 14th century, so if the dating is correct this is exceptional. Diameter 19.7cm; height 9.2 cm.</p>
	
<p>1.7. 3a – Fragment of a closed vessel from box TS 121, Berlin Museum I.13/69.</p>	<p>1.7.3b – Interior of the vessel is glazed but undecorated.</p>
	
<p>1.7.4a – Rim fragment with a pseudo-epigraphic band scratched into the black from TS 121, Berlin Museum I.13/69.</p>	<p>1.7. 4b – Interior of rim fragment.</p>

	
<p>1.7.5 – T-rim fragment with same pseudo-epigraphic band scratched on a thinly applied greeny-black surface. Berlin Museum, TS 121 I.13/69.</p>	<p>1.7.6 – Interior of another similar T-rim fragment. Berlin Museum I.13/69.</p>
	
<p>1.7.7a – Rim fragment with an applied spout. Berlin Museum, TS I.13/69.</p>	<p>1.7.7b – Interior displaying a neat hole connecting to the exterior spout.</p>
	
<p>1.7.8a – Rim fragment with pseudo-epigraphic band. Berlin Museum, TS I.13/69.</p>	<p>1.7.8b – Exterior of the rim fragment.</p>

1.8. Īlkhānid Imitation Celadon

All these pieces were excavated by the German team at Takht-i Sulaymān.

	
<p>1.8.1a – Part of a Chinese celadon lid, Berlin Museum, TS 138, I.13/69. Note how the iron in the paste has oxidised red.</p>	<p>1.8.1b – Top of Chinese celadon lid with an applied or slip-trailed floral decoration. One of seven in the collection.</p>
	
<p>1.8.2a – Collection of imitation celadon fragments in Tehran Islamic Museum pottery storage. From Takht-i Sulaymān.</p>	<p>1.8.2b – Reverse of these imitation celadon fragments in the Tehran Islamic Museum pottery storage. 1975 season.</p>
	
<p>1.8.3a – Imitation celadon base with applied/slip-trailed fish and possibly a flower in the centre? Berlin Museum, TS 138, I.13/69. Coarse siliceous-paste body.</p>	<p>1.8.3b – Exterior of the imitation celadon base. Note the colour difference between inside the foot and the outer wall. Diameter of foot 9cm.</p>



1.8.4 – Straight-rimmed imitation celadon fragments with an inscription moulded or slip-trailed on the exterior. Berlin Museum, TS138, I.13/69.



1.8.5 – Imitation celadon T-rim fragments with inscriptions moulded or slip-trailed on the exterior. The T-rims are 1.9cm wide. The plain one bottom centre is 3.1cm wide. Berlin Museum, TS 138, I.13/69.



1.8.6 – Small imitation celadon fragment with inscription. Berlin Museum, TS138, I.13/69.



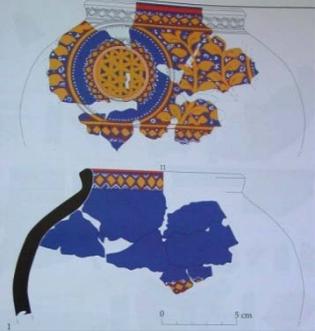
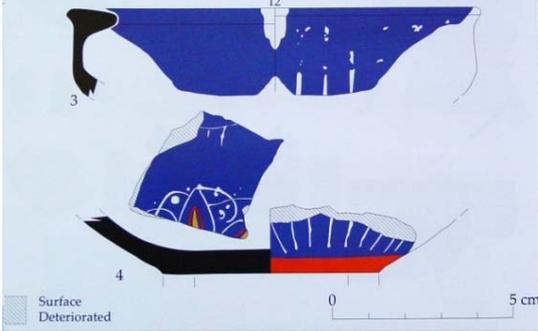
1.8.7 – Ribbed imitation celadon fragments. Berlin Museum, TS 138, I.13/69.

1.9. Īlkhānid *Lajvardīna*

	
<p>1.9.1a – Pot 503 in the Khalili Collection, London, dated <i>muḥarram</i> 778/May-June 1376 in an inscription encircling the interior just below the rim. Figural decoration is unusual in these wares and flying ducks are more commonly found on type 1.2 vessels.</p>	<p>1.9.1b – Profile of Pot 503 with a repetitive <i>iqbāl</i> (prosperity) inscription in white around the exterior of the rim above arcading imitating lotus petals. Diameter 16.9cm; height 9.5cm. Images courtesy of the Nour Foundation.²⁹⁵</p>
	
<p>1.9.2a – Berlin Museum bowl dated the first day of <i>rajab</i> of the year seven hundred and seventy-six (December 1374), I.24/66.</p>	<p>1.9.2b – Profile of Berlin Museum bowl. Diameter 16.5cm; height 9cm. Said to have been found in Nīshapūr.²⁹⁶</p>
	
<p>1.9.3a – Three <i>lajvardīna</i> bases from Takht-i Sulaymān, now in Berlin Museum collection, TS 121, I.13/69. The enamel paint is just visible.</p>	<p>1.9.3b – Exterior of the three bases, with no trace of decoration.</p>

²⁹⁵ Grube (1996), fig 9.

²⁹⁶ Hetjens-Museum (1973), 161, fig 222.

	
<p>1.9.4a – Closed-form fragment from Takht-i Sulaymān, Berlin Museum collection, TS 121, I.13/69.</p>	<p>1.9. 4b – Interior of this closed-form fragment with a pale turquoise glaze.</p>
	
<p>1.9.5 – Jar excavated at Ḥasanlū.²⁹⁷ After Danti.</p>	<p>1.9.6 – T-rim bowl fragments excavated at Ḥasanlū.²⁹⁸ After Danti.</p>
	
<p>1.9.7 – A typical Īlkhānid shaped <i>albarello</i>, neck and rim missing. V&A inv no C.53-1910. Height 26.4cm; diameter 17.1cm. Image taken from the website.</p>	<p>1.9.8 – A single handled jug – this shape is found in many museum collections. V&A inv no C.183-1928. Height 22.2cm; diameter 13.3 cm. Image taken from the website.</p>

²⁹⁷ Danti (2004),
²⁹⁸ *Ibid.*,

1.10. Īlkhānid Monumental Moulded Jars



1.10. 1 – Large moulded jar in the Freer Gallery, F1908-108, dated 683/1284-85. Height 50.2cm; width 40.4cm. Image from website.



1.10. 2 – Large moulded jar in the MMA, inv no 56.185.3, dated 681/1282-83. Height 54.6cm; diameter at widest 44.5cm. Image from website.



1.10.3a – Moulded fragment of a jar with traces of overglaze decoration. Berlin Museum, P.45, from Takht-i Sulaymān box 121, I.13/69. Width 9.6cm; height 6.2 cm. Morgan noted traces of gold leaf,²⁹⁹ but none is evident now.



1.10.3b – Interior of jar fragment with plain turquoise glaze. It has a firm white siliceous-paste body, 1.55cm thick.

²⁹⁹ Morgan (2005), LV 1,4.



1.10.4 – Monumental jar in the Freer Gallery collection, F1928.1, with six registers of relief decoration starting with musicians encircling the neck, followed by hounds, then polo players and two bands of foliage and animals hiding in it. Much of it was once gilded and there are traces of red enamelled lines. Height 65cm; width 40.7cm. Image taken from the website.



1.10.5 – Fragments of a jar decorated with a polo scene excavated at Selitryonnoye, now in State Historical Museum, Moscow, inv no 2676-28. Max dimension of largest 23cm; thickness 1.4cm. Moulded and wheel finished. After Fedorov-Davydov (2001).³⁰⁰ Black and white photograph – no colour given.

³⁰⁰ Fedorov-Davydov (2001), 136, 161, pl 93, cat no 75.

1.11. Īkhānid Polychrome on White

	
<p>1.11.1a – A fine white ware pedestal cup decorated with a pair of confronted parrot-like birds with long tail feathers in wirey foliage sprouting from a blue and white striped container. The cobalt details have bled as have some of the aubergine coloured fruits/flowers.</p>	<p>1.11.1b – Profile showing some plaster infills and overpainting on the body. The relief inscription on a blue ground dates it to <i>ramadān</i> 672/1274. Image taken from the website. V&A collection, C.53-1952. Diameter 17.8cm; height 11.4cm.³⁰¹</p>
	
<p>1.11.2a – A very fine exterior rim fragment with a moulded or slip-trailed inscription on blue ground, which reads: “Perpetual glory, increasing prosperity,”³⁰² partly outlined in black. Approximate diameter 14cm. Berlin Museum, Takht-i Sulaymān collection, TS 146, I.50/71.</p>	<p>1.11.2b – Interior of inscribed rim fragment decorated in black, purple, turquoise and cobalt. Note a similar half lunette decoration to 11.1b below the rim, and the wirey foliage. Berlin Museum, TS 146, I.50/71. See text for translation of inscription.</p>

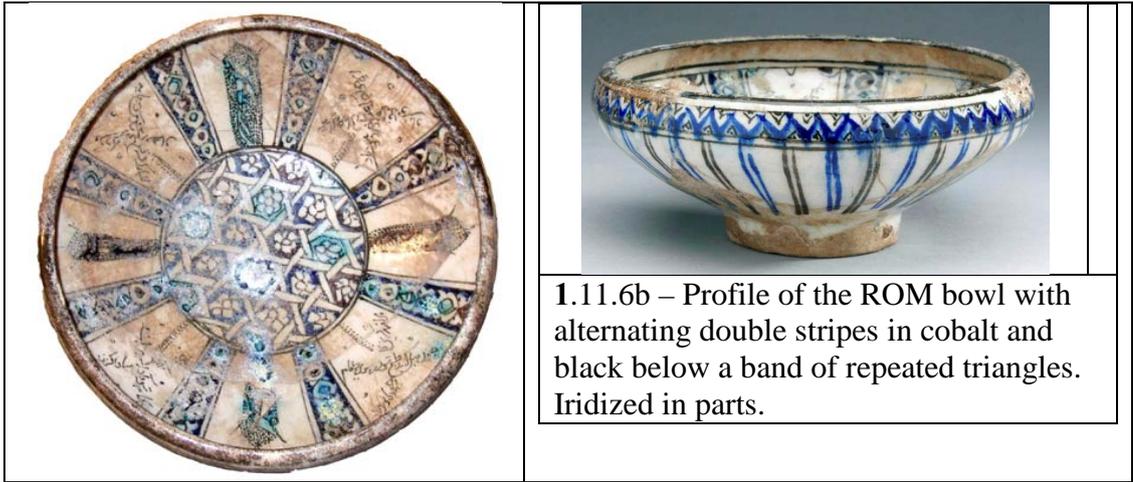
³⁰¹ Ettinghausen (1935), 49, fig. 13 - formerly Kelekian # 120; Lane (1947), plate 94 all published as being dated 674/1274. However, Manijeh Bayani's recent reading is: “Perpetual glory and increasing prosperity [and] constant splendour and rising good fortune and wealth [and] happiness [and] well-being, [and] [God's] grace [and] generosity [and] power and strength [and] long-life to its owner. In the month of the blessed *ramadan*, the year six hundred and seventy two (March-April 1274).”

³⁰² Read by Manijeh Bayani.

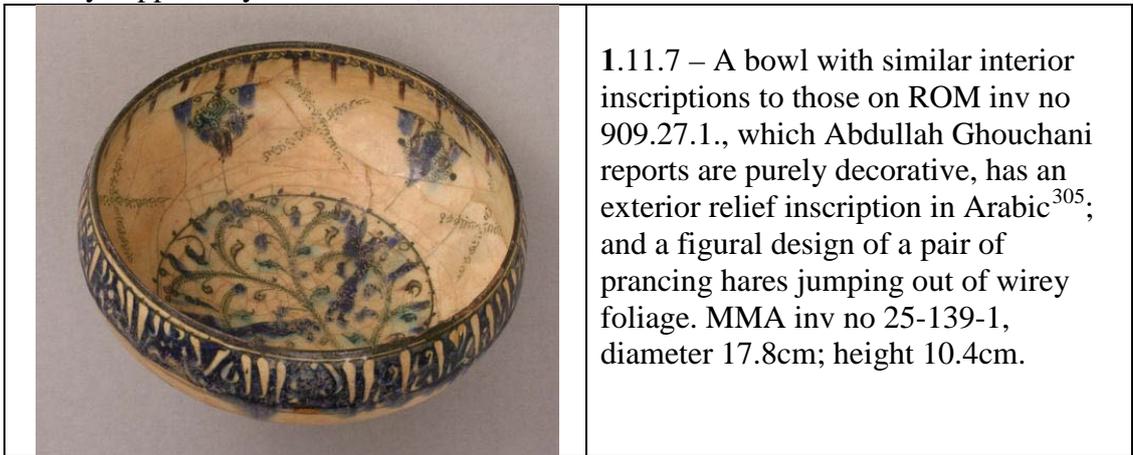
	
<p>1.11.3a – Interior of a bowl body fragment with stylised wirey foliage. Berlin Museum, Takht-i Sulaymān collection, TS 146, I.50/71.</p>	<p>1.11.3b – Exterior with a thick black band at the bottom below a fine one and wirey foliage sprouting from a cobalt blue triangle outlined in black.</p>
	
<p>1.11.4a - Rim fragment displaying the full palette of green, purple, cobalt and black, as cited by Lane for V&A C.120-1931.³⁰³ Berlin Museum, Takht-i Sulaymān collection, TS 146, I.50/71.</p>	<p>1.11.4b – Exterior with simple cobalt arcading in imitation of lotus petals, with a central vertical line and dots, and the triangular spaces below the black banded rim infilled with hanging triangles from a fine band. Identical to Nippa’s number 2 profile.³⁰⁴</p>
	
<p>1.11.5a – Base fragment with an antlered deer in wirey foliage in the tondo. Berlin Museum, Takht-i Sulaymān collection, TS 146, I.50/71.</p>	<p>1.11.5b – Exterior of base fragment with a plain black band above the ringfoot.. Foot diameter 8cm.</p>

³⁰³ Lane (1947), plate 96A.

³⁰⁴ Nippa (nd), plate 1.2.

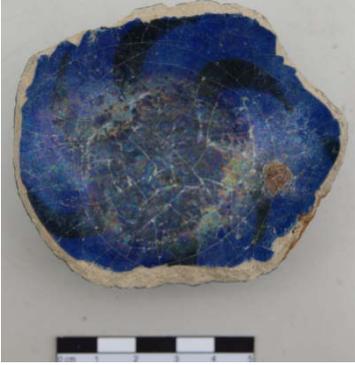
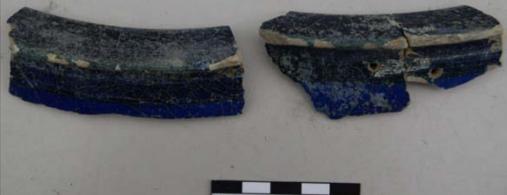


1.11.6a – A bowl with an incurving rim, using the same palette as the figural bowls, but now with interlace strapwork decoration in the tondo, and the cavetto divided into alternating panels, four of which have cursive inscriptions with a Persian quatrain, a benedictory couplet from the *Shahnamah* and a date - *ramadān* 729/July 1329. ROM inv no 909.27.1. Diameter (outside) 19.05cm; height 8.57cm. Images kindly supplied by Rob Mason, ROM.



³⁰⁵ See above on page 33 for a translation.

1.12. Īlkhānid Black under a Transparent Cobalt Glaze

	
<p>1.12.1a – Ringbase of a small bowl with a splayed foot and a spiral design rather like a Catherine wheel in the tondo. Berlin Museum, TS 149, I.13/69.</p>	<p>1.12.1b – Exterior of ringbase, without decoration. The glaze has pooled at the foot; its interior is unglazed. Berlin Museum, TS 149, I.13/69.</p>
	
<p>1.12.2a – Two body fragments with floral designs in black – that on the right is from a closed form. Note a rivet hole on the right side of the left fragment. Berlin Museum, TS 149, I.13/69.</p>	<p>1.12.2b – Interior of closed form with colourless glaze. Note the ridge towards the top where the two halves would have been luted together in the making. Berlin Museum, TS 149, I.13/69.</p>
	
<p>1.12.3a – Two T-rim fragments with black flat rims and band on the exterior. Berlin Museum, TS 149, I.13/69.</p>	<p>1.12.3b – interior of the two T-rim fragments. Note the two rivet holes on the righthand piece. Berlin Museum, TS 149, I.13/69.</p>

1.13. Īlkhānid Ṭūs Wares

These four drawings are from Mr Maḥmūd Ṭoghrāiy's preliminary report on his excavations on the Ṭūs citadel – deep soundings to establish the stratigraphy.

<p>1.13.1 - From the citadel. #18 – 6-8th centuries #19 – 8-9th centuries</p>	<p>1.13.2 - From the citadel. #20 – 7-8th centuries #21 – 8-9th centuries</p>	<p>1.13.3 - From the citadel. #22 – 7-8th centuries #23 – 7-8th centuries</p>	<p>1.13.4 – From the citadel. #31 – 8-9th centuries #32 – 8-9th centuries</p>
<p>1.13.5a – Base fragment, siliceous-paste with underglaze cobalt and black stylised flower – from the citadel pottery mats.</p>	<p>1.13.5b – Exterior of base. Photographed on a visit to the site in September 2003.</p>		
<p>1.13.6a – Base fragment with yellow-buff clay body, with 'Catherine wheel' motif in black under a transparent turquoise glaze. From deep sounding number 6 at Ṭūs. Stored in Ribāṭ-i Ṭoraq, Mashhad.</p>	<p>1.13.6b – Exterior of this base showing the crude clay body with many airholes.</p>		

1.14. Īlkhānid Sulṭāniyya Slipped Red Earthenwares

	
<p>1.14.1a – Shallow blue and white dish with a central lotus and foliage on white slip on a red body. Three prominent spur marks. Excavation number NXIII.36. Found 50cm below the surface.</p>	<p>1.14.1b – Exterior with scrolling cloud band below rim. The plaster mend obscures the red body. The scratches on base made by excavators to identify body, which is red. Diameter 18.2cm; height 3cm; diameter foot 9.5cm.</p>
	
<p>1.14.2a – Base fragment with same body decorated with a geometric motif; found on the pottery mats on last visit, 30.9.2003.</p>	<p>1.14.2b – Unglazed base with ring foot. Note the red calcareous clay body with white gritty inclusions.</p>
	
<p>1.14.3a – Similarly shaped bowl to number 1.14.1 with blue and greeny-black decoration. The centre decoration has a six-petal stylised flower defined with a thick cobalt line – a series of interlaces radiate out of it to six foliated ogival arches. The white ground is filled with clusters of four dots; single dots; and coils.</p>	<p>1.14.3b – The exterior is decorated with a band of scrolling foliage with blue flowers. The low ring foot is glazed, but the excavators have made deep gouges inside the foot to reveal the red body. Excavation number NXVIII 36. Diameter 19cm; height 4.3cm; diameter of foot 9cm.</p>

	<p>1.14.4 - A fragment found on the ground in the area near the mausoleum, within the citadel complex. This was examined microscopically (X10) at RLAHA Oxford and proven to have a calcareous clay body with a thin alkaline glaze on both sides. The exterior is undecorated.</p>
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1.15. Īlkhānid Sulṭāniyya Black under Turquoise Calcareous Clay Wares

	
<p>1.15.1a – A T-rim bowl found at Sulṭāniyya by Reitlinger in 1931, now in Ashmolean, 1978.1625. The rim decoration is the same as for the others in this family.</p>	<p>1.15.1b – Profile of Ashmolean 1978.1625. Diameter 21.7 cms; height 9.7 cms; foot diameter 6.7 cms.</p>
	
<p>1.15.2a – The Talbot Rice (1932) bowl now in the V&A, C.8-1972. Acquired in Sulṭāniyya in 1931.</p>	<p>1.15.2b – Exterior of V&A, inv no C.8-1972. Diameter 22.5cm; height 8.6cm; foot 7.4 cm. Note the ‘nipple’ inside the foot ring.</p>



1.15.3a – Sulṭāniyya bowl fragment in the Talbot Rice collection in Gloucestershire.



1.15.3b – Exterior of the Talbot Rice bowl.



1.15.4a T-rim bowl 1956.177, ex-Barlow collection and now in Ashmolean. It is identical to 1978.1625 in profile.



1.15.4b – Porter published this as Syrian, but considering its diagnostic Iranian form, this is doubtful. Diameter 31.5cm; height 13.5cm; foot ring 8.9 cm.



1.15.5 – Fragment of a T-rim bowl from the German excavations at Baṣṭām, Urartu with a similar decorative motif to that of no 1.18,4 above. After Strauss (1979), Fig. 23.5.



1.15.6 - Fragment of a Sulṭāniyya T-rim bowl from the Talbot Rice collection. A thin section was examined microscopically (X10) and demonstrated to be a calcareous clay body and not a siliceous-paste one. The exterior has the same design 1.15.1b; 2b; and 3b.

2.1. Golden Horde Coloured-ground Relief

	
<p>2.1.1a – Rosewater bowl or <i>gyulabdan</i> from the Volga area. Azov Museum inv no KP 25355/a A1-468/1. Overall diameter 30cm. No 506 in Kazan catalogue.³⁰⁶</p>	<p>2.1.1b – Profile displaying the ribbed, cone-shaped bosses and the erect spout. Curiously there is no image of this diagnostic shape in either of Fedorov-Davydov’s English publications.</p>
	
<p>2.1.2a – Small bowl or <i>piyala</i> with a pair of addorsed ducks walking anticlockwise around the tondo. State Hermitage inv no TB-51. Found in mounds near Belorechenskaya settlement, Maikop department, Kuban region, mound 1.</p>	<p>2.1.2b – Profile of small bowl excavated by N Veselovsky in 1896. Diameter 18cm. no 554 in Kazan catalogue.³⁰⁷</p>

³⁰⁶ Kramarovsky (2005), 144.

³⁰⁷ *Ibid.*, 140.



2.1.3a – Dish with broad flat rim and the centre divided into quadrants with a goose in scrolling foliage in each one. The dividing bands are filled with repeated horizontal chevrons drawn in black, with alternating bands of cobalt and turquoise. The rim has a band of scrolling half palmettes, below which in the cavetto is one of repeated teardrops or commas.



2.1.3b – Dish in profile. Note the decoration imitating incised metalware, a characteristic of Īlkhānid type 1.5.1. This is no 624 in Kazan catalogue, partially illustrated on the inside page with the credit lines. From the Volga area, Azov Museum inv no KP 25355/2 A1-468/2. Diameter 36cm; height 9cm.



2.1.4 – A series of bowls in the Bolgary site museum. From past excavations. Both inscriptional bands have a repeated Arabic word *iqbāl* (اقبال) or 'prosperity'. All have a cobalt blue crosshatched band below the rim, with turquoise dots at intervals around it. No dimensions.



2.1.5 – Another bowl in the same display case at Bolgary, with a duck in stylised foliage in the tondo, surrounded by leaves resembling amoebas, with a band repeating the Arabic word *iqbāl* or 'prosperity', framing this and below the rim a band of teardrops. The stippling is not well executed in the tondo, so perhaps the careless treatment of leaves goes with this. No dimensions.

	
<p>2.1.6a – Bowl excavated at Saraichik with a duck or goose in the tondo, partially obscured by a piece of kiln debris adhered to it. The inscription band is a repeated <i>iqbāl</i>.³⁰⁸ After Samashev et al.</p>	<p>2.1.6b – Profile of this bowl or <i>piyala</i>. The publication gives no dimensions, but it is likely to be around 16cm in diameter.</p>
	<p>2.1.7 – Part of a rosewater bowl excavated at Saraichik.³⁰⁹ Again no dimensions are given. It is also missing its ring foot. After Samashev et al.</p>
	<p>2.1.8 – Bowl fragment from Saraichik with a cursive inscription below the rim on the exterior, which is unusual. The interior decoration of a series of rosettes is known from excavated material at Selitryonnoye,³¹⁰ as is the stylised leaf in the band above.</p>
	<p>2.1.9 – A full section of a small bowl excavated at Bilyar by Valiullina in a fourteenth century context.³¹¹ Image taken from the Kazan State University Archaeological Museum's website.³¹²</p>

³⁰⁸ Samashev et al (2008), 210.

³⁰⁹ *Ibid.*, 215.

³¹⁰ Kramarovsky (2005), 141, cat # 594.

³¹¹ Valiullina (2002), 240, fig 5 – ink drawing with profile.

³¹² <http://www.russianmuseums.info/M2560images>.



ME 161 1978.1636. AM 193
 Yerevan or Seltsen deep bowl, covered with a continuous repeat of near-drap-shaped cobblestones, reserved blue hatched ground each with a blue dot in the centre. Blue hatched border with four blobs of turquoise. Back arranged in typical Yerevan panels.
 Diameter 22.5 cm
 Condition, a little missing on the base and on the rim
 Period early fifteenth century
 Bought by us and Meskine 1939

Lene, Later Islamic Pottery, plate 5, illustrates bowl with identical pattern and a duck from Vierkhnd Serei on the Volga, Hermitage museum. Since never have a Persian custom. Later dispenses of the theory that such bowls were made in Russia, (page 14).
 Sold by 12.7.75 for 40 with a very heavy duck on the middle and 1/2 in Jan 1952
 They have found a new name Bismol

2.1.10 – The only identified Golden Horde bowl in a British collection now in the Ashmolean, ex-Reitlinger collection, 1978.1636. On the card Reitlinger notes its similarities with the bowl published by Lane, but as it had a Persian customs' label dismissed the possibility it could be from the Golden Horde! Although it is in rather a poor state, it meets all the criteria, and can be paired with the Bolgary bowl in 2.1.4, upper left. Diameter 22.5cm.



2.1.11 – A Golden Horde lotus bowl with a prancing snow leopard amongst scrolling foliage filling the whole space. Note the fine stippling. The exterior has the typical relief arcading. From the Volga region. Azov Museum collection, inv no KP 21756 A1-283.³¹³ Diameter 19cm; height 11cm. A second one was displayed in the Kazan exhibition, also from Azov.³¹⁴



2.1.12 – Neck and shoulder of a Golden Horde jug or jar excavated at Mizdakhkan. After Kdirnyazov 2003.³¹⁵

³¹³ Kramarovsky (2005), 254, #606.

³¹⁴ *Ibid.*, 144, 255, #626.

³¹⁵ Kdirnyazov (2003), fig 62a.



2.1.14a - Lid and **2.1.14b** - rosewater bowl excavated at Selitryonnoye by Dr AY Sitdikov, Kazan State University, during the Volga Regional Archaeological Expedition of Moscow University and Archaeology Institute's 2008-2009 season. According to Dr Sergei Bocharov of the Simferol Academy these are a perfect fit.³¹⁷ Images kindly provided by Dr Bocharov.

³¹⁶ Grateful thanks to the director, Dr Mohammed Abbas who kindly provided it in November 2011.

³¹⁷ Bocharov (forthcoming).

2.2. Golden Horde Underglaze-painted Panel Style

	
<p>2.2.1a – A section of a bowl with a two inscribed panels,³¹⁸ a scrolling half palmette in another and two with single dots. State Hermitage inv no Sar-260. Found at Tsarevo, excavated by A Tereschchenko in the 1840s.³¹⁹</p>	<p>2.2.1b – The exterior with a typical Golden Horde ‘circle and trellis’ motif in black and blue. Measures 15x13 cm.</p>
	
<p>2.2.2a – A full section of hemispherical bowl from Kramarovsky’s excavations at Solkhat with a very fine, light buff body. Note the fine stippled infill. Believes it to have been imported from Azov. Cat no Sol – 39.</p>	<p>2.2.2b – Exterior of the Solkhat bowl. Diameter c. 20cm; height 8.5cm; diameter of foot 7.2cm. Exterior arcades painted cobalt and black. Glaze pooled on the interior, and the white ground is quite grey. Base unglazed and some iridescence.</p>
	
<p>2.2.3a – Bowl from Mizdakhkan excavations. Nukus Museum.</p>	<p>2.2.3b – Profile from display in Nukus Museum. No dimensions available.</p>

³¹⁸ See text for translation.

³¹⁹ Kramarovsky (2005), 140, cat # 162.

	<p>2.2.4 – A wine bottle with a little moulded relief decoration from the neck down the shoulder to the central band. Below this are panels of inverted single leaves framed with double cobalt vertical lines; at top and bottom there is the circle and trellis motif found on the exteriors of many panel style and geometric bowls. State Hermitage inv no Sar-265. Found at Tsarevo. Acquired in 1860 from the Archaeological Commission. Diameter 15.2 cm; height 23cm.³²⁰</p>
	
<p>2.2.5 – Small inkwell from Tsarevo excavated by Tereshchenko in the 1840s. Height 5.9cm; body diameter 7.5cm. State Hermitage inv no Sar-263.³²¹</p>	<p>2.2.6 – Small inkwell from Tsarevo excavated by Tereshchenko in the 1840s. Height 5cm; body diameter 7cm. State Hermitage inv no Sar-509.³²²</p>

³²⁰ Dār al-Āthār (1990), 26, 100, cat # 70 – see the entry for a bibliography.

³²¹ Kramarovsky (2005), cat #151.

³²² *Ibid.*, 140, cat #152; München (2005), cat #270.

2.3. Golden Horde Underglaze-painted Geometric

	
<p>2.3.1a – Bowl found at Selitryonnoye, excavated by Fedorov-Davydov in 1981. Now in Astrakhan Museum reserves, inv no AMZ KP 37605 A 13697.</p>	<p>2.3.1b – Profile of the Selitryonnoye bowl with the ‘circle and trellis’ exterior decorative motif. Some plaster infill and overpainting. Diameter 23.5cm; height 13.5cm; foot diameter 7cm. Cat no 590 in State Hermitage exhibition in Kazan.³²³</p>
	
<p>2.3.2a – Bowl from Bolgary on display in the National Museum, Kazan. No accession number or dimensions available.</p>	<p>2.3.2b – Profile of the Bolgary bowl. Note the cobalt lotus panels alternating with narrow black pseudo-epigraphic panels.</p>
	
<p>2.3.3a – Bowl in the small site museum at Kunya Ürgench, Turkmenistan.</p>	<p>2.3.3b – Profile of the Kunya Ürgench bowl. No accession number or dimensions available.</p>

³²³ Kramarovsky (2005), 141.



2.3.4a – A bowl excavated at Bolgarī in the National Museum, Kazan. A fragment with a similar chequered panel was found in excavations at the Kazan Kremlin.³²⁴



2.3.4b – Profile of bowl in the National Museum, Kazan. No accession number or dimensions available.

³²⁴ Kazan (2005), 90.

2.4. Golden Horde Flowers and Peacock Feathers

	
<p>2.4.1a – Bowl with a lotus flower in the tondo on a turquoise ground framed by a pseudo-epigraphic band divided into four by cobalt flowers; in the cavetto there is band of peacock feathers, and a series of framed commas just below the rim.</p>	<p>2.4.1b – Profile displaying the typical GH diamond and circle decoration in cobalt and black – found at Selitryonnoye by Fedorov-Davydov in his 1969 season. Now in Astrakhan Museum, inv no 16257/26A 7551. Diameter 19.2cm; height 9.2cm; base diameter 7.1cm.³²⁵</p>
	
<p>2.4.2a – Bowl waster excavated in the Selitryonnoye 1969 season. The tondo has a six-pointed star encircled by a pseudo-epigraphic band. The cavetto has a series of foliated framed stylised lotus flowers, with solid black flowers in the interstices.</p>	<p>2.4.2b – Profile displaying the typical circle and trellis design – note a fragment of another pot adhered to it, right hand side. Now in Astrakhan Museum, inv no AMZ KP 16257/30A 7555.</p>
	
<p>2.4.3a – Bowl in the same group with a</p>	<p>2.4.3b – Profile displaying a typical GH</p>

³²⁵ Kramarovsky (2005), 141, cat # 589.

blue hexagonal design in the tondo – the glaze has pooled and is too thick to see what design is inside it – this has a pseudo-epigraphic band and six blue circles. The cavetto is a series of black flowers looking as if they have been stencilled on, they are so regular. Inv no 60.

decorative motif. This has no provenance, but was found in ICHTO's Sārī treasury on a visit in 2003. It is not known if it was confiscated from 'smugglers' or was a chance find in the region. Diameter 17.8cm; height 8.3cm; foot diameter 7.8cm.



2.4.4 – Rim fragment on display in the Bolgary site museum identical to #2.2.1. No other information available.

2.4.5 – A small base fragment, red earthenware, slipped and underglaze painted, imitating the fine siliceous-paste wares. From a mixed Tsarevo and Selitryonnoye box in the National Museum, Kazan. An identical complete base was excavated at Selitryonnoye.³²⁶



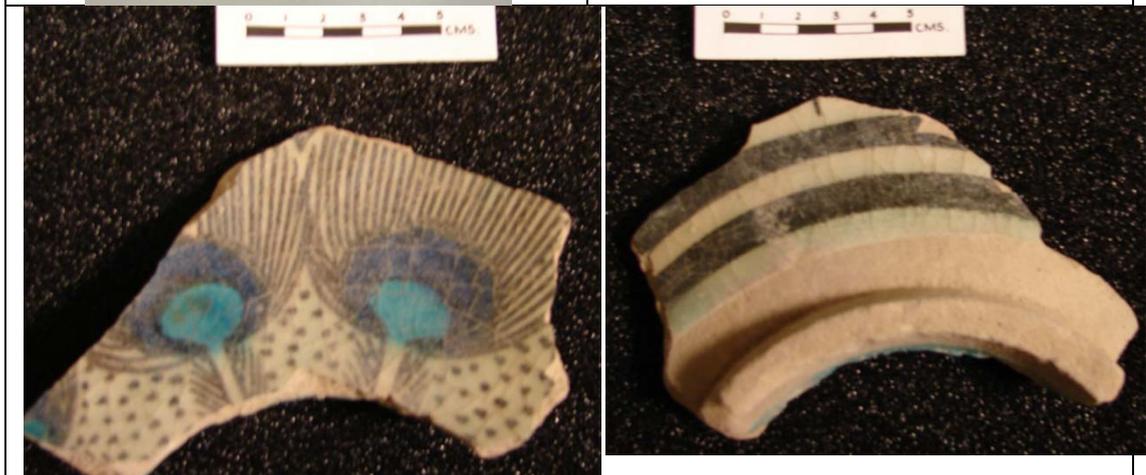
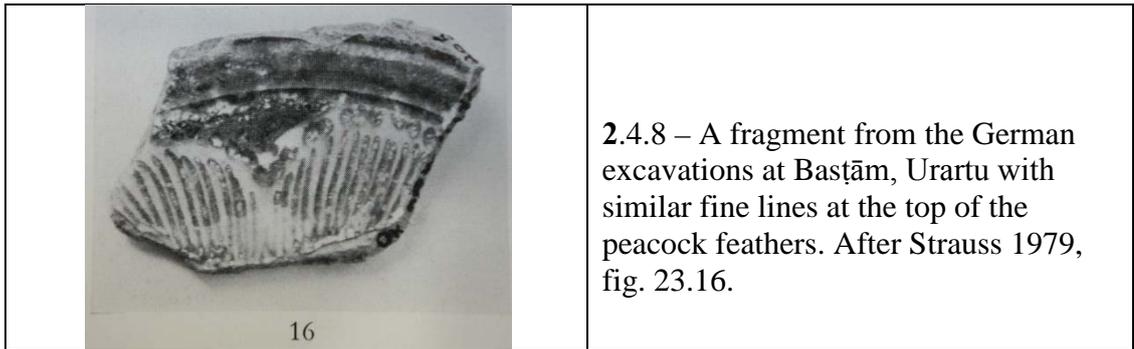
2.4.6 – A stack of six bowls found stuck together excavated at Selitryonnoye by Fedorov-Davydov during the 1981 season. Astrakhan Museum inv no AMZ HB 16530. Measures 21.5x21x17cm.³²⁷

2.4.7 – A trumpet shaped kiln spacer excavated in 1981. On the far side there is a fragment of a 2.4.2 lotus bowl attached.³²⁸ Base diameter 8.3cm; height 11.5cm. Astrakhan Museum inv no AMZ KP 16257/37A 7562. Excavated Selitryonnoye in 1969.

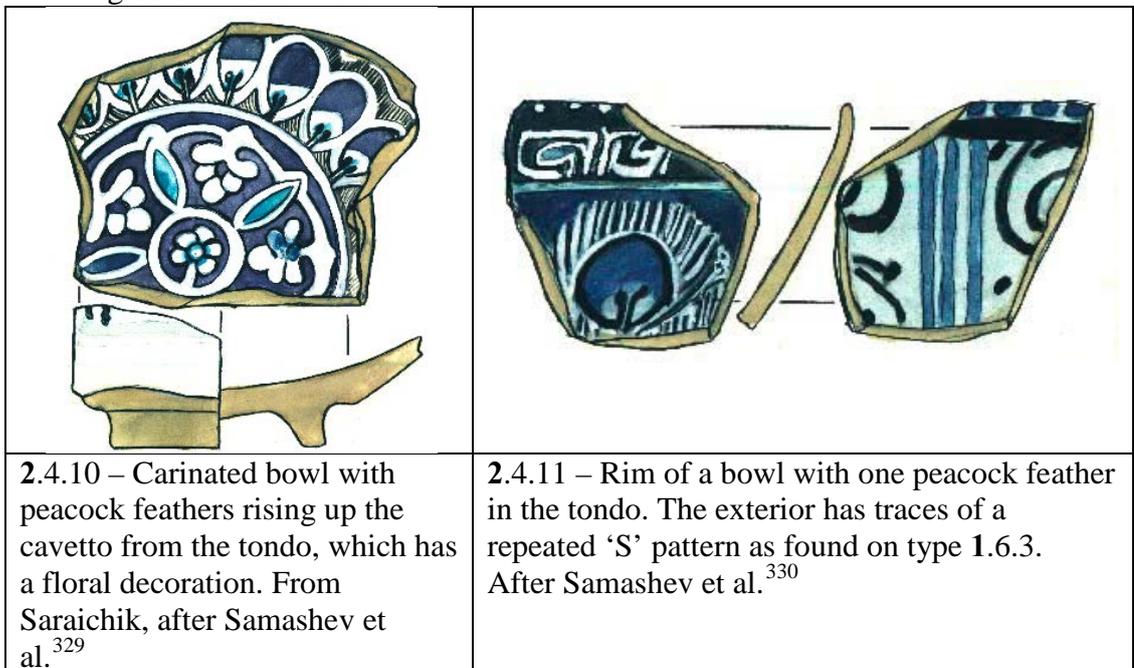
³²⁶ Fedorov-Davydov (1984), illustration 13/3.

³²⁷ Kramarovsky (2005), 141, cat #591.

³²⁸ *Ibid.*, 136, cat #593.



2.4.9 – A fragment from the Guimet Paris Sīstān sherd collection. It is impossible to tell whether this is a Golden Horde product or not. The double horizontal band on the exterior is certainly in keeping with the established style and there is one tiny fine black line above which could have been the start of a trellis line. The treatment of the feathers is almost identical to that in type 2.4.1. The only difference is the infilling below the feathers.



³²⁹ *Ibid.*, 221.

³³⁰ *Ibid.*, 221.

2.5. Golden Horde Black under a Transparent Turquoise Glaze



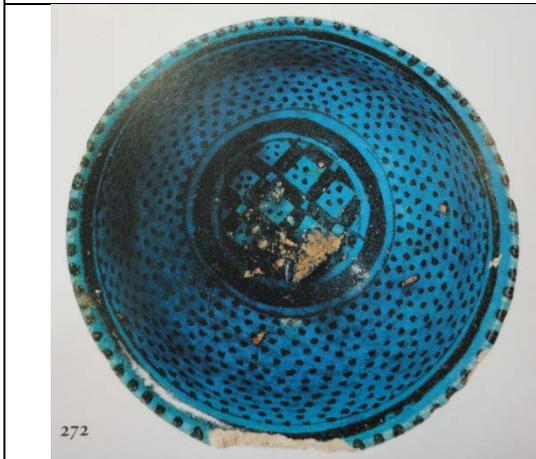
2.5.1a – A typical rosewater bowl or *gyulabdan* from the Volga area. Note the long-tailed fish swimming inside. The exterior band on the shoulder is pairs of birds looking right between each protruberance in scrolls of foliage.

2.5.1a – Profile of the rosewater bowl. Diameter 23cm; height 15cm. Azov Museum inv no KP 25144/445 A1-426/445. Exhibited in the Kazan exhibition, cat no 623.³³¹



2.5.2a – Bowl from Mizdakhkan excavations in the Nukus Museum, Uzbekistan.

2.5.2b – Profile of the Mizdakhkan bowl. No dimensions or inventory number available.



2.5.3a – Bowl from Tsarevo excavations,

2.5.3b – Profile. Diameter 18cm; height

³³¹ Kramarovsky (2005), 144.

<p>transferred to Hermitage Museum in 1929, inv no Sar-267. After München (2005).³³²</p>	<p>8.3cm. Photographed on display in the State Hermitage.³³³</p>
	
<p>2.5.4a - Bowl from Tsarevo excavations, decorated with a stylised lotus in silhouette in the tondo. The cavetto has a repeated three-pronged motif similar to that on #1.4.22 and 23. After München (2005).³³⁴</p>	<p>2.5.4b – Profile – diameter 19.3cm; height 9.3cm. It was transferred in 1860 from the Archaeological Commission to the State Hermitage, inv no Sar-268.³³⁵</p>
	
<p>2.5.5a – Bowl from the Saraichik excavations with moulded relief decoration highlighted in black under a transparent turquoise glaze.</p>	<p>2.5.5b – Profile of the bowl displaying the typical arcaded exterior decoration. No dimensions or inventory number available.³³⁶</p>
	
<p>2.5.6 – Base fragment of another relief bowl from Saraichik excavations. It looks</p>	<p>2.5.7 – Inkwell excavated at Saraichik. No further information available.³³⁸</p>

³³² München (2005), 238, cat # 272.

³³³ Dār al-Āthār (1990), 26 and 99, cat # 68; München (2005), 238, fig 272.

³³⁴ München (2005), 238, cat #271.

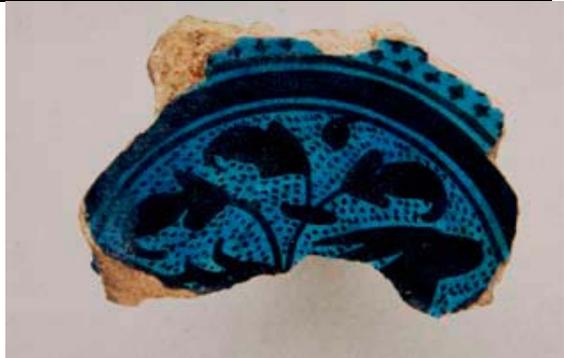
³³⁵ Dār al-Āthār (1990), 26 and 99cat # 67; München (2005),238, fig 271.

³³⁶ Samashev et al (2008), 232.

as though the potter used cobalt too and just dipped the whole pot into the turquoise glaze instead of the transparent one. The fact there are two implies a short-lived trend.³³⁷



2.5.8 – Bowl from Saraichik excavations with a quatrefoil motif in the tondo and a series of small crosses in the cavetto. The exterior has groups of four dots together repeated all over³³⁹



2.5.9 – Bowl fragment from Saraichik excavations with attenuated trefoil leaves in the tondo and a series of small crosses in the cavetto.³⁴⁰



2.5.10 – Part of a rosewater bowl from Saraichik excavations with one boss left on the shoulder. The interior has a deer silhouetted on a ground of scrolling foliage. Note the band of fish swimming clockwise around the bowl above a series of birds silhouetted in foliage. There are traces of a similar band above on the shoulder. No further information available.³⁴¹



2.5.11 – Fragment of the shoulder of a vessel – either closed form or another rosewater bowl – with three running hares in scrolling foliage and single dot stippling. From Saraichik excavations – no further information available.³⁴²

³³⁸ *Ibid.*, 231.

³³⁷ *Ibid.*, 233.

³³⁹ *Ibid.*, 231.

³⁴⁰ *Ibid.*, 233.

³⁴¹ *Ibid.*, 235.

³⁴² *Ibid.*, 233.



2.5.13 – Collection of rosewater bowl spouts and bosses from a mixed box of Selitryonnoye and Tsarevo material in the Kazan State Museum. These are seemingly indestructible and are excellent diagnostic indicators for these wares.

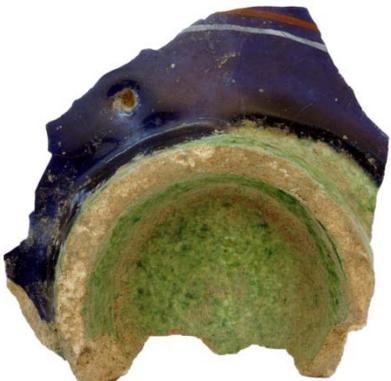
2.6. Golden Horde *Lajyardīna*

	
<p>2.6.1a – A carinated bowl with a Persian inscription in gold leaf on the exterior. The interior has an opaque turquoise blue glaze and a central medallion in the tondo encircled by swags in red and white highlighted with gold leaf.</p>	<p>2.6.1b – Profile, which has a metal prototype – see number 2.6.10. Found at Selitryonnoye, excavated by Fedorov-Davydov in 1976. Now in Astrakhan Museum reserves, inv no AMZ KP 28749 A 10666. Diameter 21cm; height 10.2cm.³⁴³</p>
	
<p>2.6.2a – Bulbous bottle found at Tsarevo, excavated by Tereshchenko in the 1840s. Note it has a green glazed foot ring.³⁴⁴ The neck is missing. Below it and on the widest part of the body there is a band of repeated Kufic letters.³⁴⁵ The base has green glaze.</p>	<p>2.6.2b – Detail of the designs. The main design is a series of strapwork medallions outlined in red with detailing in white. State Hermitage inv no Sar-266. Height 19.4cm; diameter at widest point 19.4cm.</p>
	
<p>2.6.3a – A bowl section from</p>	<p>2.6.3b – Exterior of the bowl. The</p>

³⁴³ Kramarovsky (2005), 69, cat # 595.

³⁴⁴ *Ibid.*, 69, cat # 573.

³⁴⁵ See pages 45-46 of this volume for a possible translation and explanation.

<p>Kramarovsky's excavations at Solkhat. It has a yellow-buff siliceous-paste body, and decorated with white and red vegetal designs over the glaze. There are traces of gold leaf on the interior. There is a kufic band just below the rim, see number 2.7.1a for translation.</p>	<p>cobalt glaze is smooth and pools above the foot. Note the dark green glaze below this and inside the foot, as on numbers 2.6.2a/b. There is a white <i>naskhī</i> pseudo inscription just below the rim, above a white vegetal scroll. Diameter 22cm; height 7.5cm.</p>
	
<p>2.6.4a – Base fragment from Saraichik excavations. Image after Samashev et al 2008.</p>	<p>2.6.4b – Exterior – again note the green base. No further information available.</p>
	
<p>2.6.5 – Fragment on display in the Bolgary site museum. No further information. The kufic letters are an abbreviated form.³⁴⁶</p>	<p>2.6.6 – Fragment from the excavations at Jayik settlement, north of Saraichik, Kazakhstan. Image from Kuznetsova.³⁴⁷</p>
	
<p>2.6.7a – Rim fragment from Jayik settlement excavations.</p>	<p>2.6.7b – Exterior. Images from Kuznetsova.</p>

³⁴⁶ See pages 45-46 of this volume for a possible translation and explanation.

³⁴⁷ Kuznetsova (2006), 175-78 for report on excavations.

	
<p>2.6.8a – Rim fragment from Jayik settlement excavations – not the turquoise glaze as well as the cobalt.</p>	<p>2.6.8b – Exterior. Images from Kuznetsova.</p>
	
<p>2.6.9a – Base of a small stemcup in a mixed box from both Tsarevo and Selitryonnoye excavations now house in the Kazan Museum. Unfortunately the excavation/accession number masks the decorative detail of a geometric rosette. Traces of gold leaf.</p>	<p>2.6.9b – Inside foot. Foot diameter 6.8 cm. There are signs of burning on the interior, indicating it was in a fire.</p>
	
<p>2.6.10 – A bronze basin inlaid with gold and silver, dated to late thirteenth century. A chance find at Bolgary in 1891.³⁴⁸ The prototype for number 2.6.1. The interlinking swags in the lowest register, similar to those encircling the tondo medallion on 2.6.1. Hermitage Museum inv no 30-353. Diameter 26.5cm; height 11cm – its base is missing. Thought to be from Iran or Mosul.</p>	<p>2.6.11 – Tile panel with circular stellate design including both <i>lajvardīna</i> and polychrome-enamelled examples.³⁴⁹ The excavators found these “were used for ornamentation of the inside walls of the large residential building on the Selitryonnoye site (dig XI).”³⁵⁰ Astrakhan Museum inv no KP 33155/2A 12188. 45 x 45cm. Selitryonnoye 1978 season.</p>

³⁴⁸ *Ibid.*, 97, cat # 646.

³⁴⁹ Kramarovsky (2005), 246, #233.

³⁵⁰ Fedorov-Davydov (1984), 129.

2.7. Golden Horde Polychrome Enamelled

	
<p>2.7.1a – This stemcup is both underglaze-painted in cobalt and turquoise and overglaze-enamelled in red and gold leaf. It has a pair of phoenixes flying around the centre in brightly coloured foliage. It has been conserved and it is estimated that more than half the original remains. It was the highlight of the Kazan 2005/6 exhibition.³⁵¹ See main text for a possible translation of the repeated kufic letters³⁵².</p>	<p>2.7.1b – Profile – with a decorative kufic band³⁵³ highlighted in gold leaf just below the rim. Diameter 18cm; height 13cm. Azov Museum inv no KP 27097/250 A1-600/250. The leaves are Chinese inspired. Provenance unknown, possibly Solkhat. The shape is taken from metal prototypes, see type 1.8.</p>
	
<p>2.7.2a – Fragments decorated on an opacified white glaze in cobalt blue, red and black with applied gold leaf – traces of a long-tailed phoenix in foliage. Found at Saraichik during their excavations. No further details. Images kindly provided by Kuznetsova.</p>	<p>2.7.2b – Detail of the top right fragments displaying the quatrefoil motif framed in red enamel and infilled with a gold leaf square on a blue ground. Some of the detailing is outlined in black. Contemporary Yuan blue and white wares were also known to have been gilded, so this is perhaps an attempt at copying.</p>

³⁵¹ Kramarovsky (2005), 67, cat #604.

³⁵² Vol 2, 45.

³⁵³ See pages 45-46 of this volume for a possible translation and explanation.

	
<p>2.7.3a – Dated polychrome rim and section of a bowl from Saraichik excavations (764/1362-63). Note the red six-petal flower which would appear to be ubiquitous on tiles in this style.</p>	<p>2.7.3b – Exterior of the same bowl with lotus petal panels at the bottom, with an inscription in Persian in the band above the lotus panels.³⁵⁴ Images courtesy of Kuznetsova.</p>
	
<p>2.7.4 – Phoenix tile in the small site museum at Kunya Ürgench, Turkmenistān. It originally decorated a cenotaph.</p>	<p>2.7.5 – Yuan blue and white fragment from the Tsarevo and Selitryonnoye mixed box in the Kazan National Museum. While this is not enamelled, it is included to demonstrate that Yuan prototypes were found in fourteenth century levels at these sites, and in the past some were gilded.³⁵⁵</p>

³⁵⁴ Page 46 of this volume for a transliteration and translation.

³⁵⁵ Liu (1993), 34.



2.7.6 – A tile panel from a villa in Selitryonnoye excavated by Fedorov-Davydov in 1978.³⁵⁶ Note how much more varied the shading in the colour palette is, with grey too, and more naturalistic. Now in Astrakhan Museum reserves, inv no KP 33155/14A 12190. Length 70cm; width 50cm; thickness 5.5cm. Photographed on display in Kazan 2006.



2.7.7 – Tile fragment from Selitryonnoye with a portrait of a man wearing a green pointed hat on a floral ground. Now in State Museum of Oriental Art, Moscow, inv no GMV-4380. Width 7cm; depth 2.7cm.³⁵⁷ Image after Kramarovsky 2007.

³⁵⁶ Fedorov-Davydov (1984), ill 68; idem (2001), 131, pl 79, cat #52 – this has a different inv no: PO-1977-4, but this could be an excavation number as opposed to the museum accession number – the dimensions were larger too, which are more realistic, so have changed these; Kramarovsky (2005), cat #232.

³⁵⁷ Fedorov-Davydov (2001), 154, cat # 39, pl 68.

2.8. Golden Horde Monochrome Moulded

	
<p>2.8.1a – A moulded rosewater bowl on a ring foot from the Volga area in the Azov Museum collection, inv no KP-29185/2 A1-668/2. At first glance it is monochrome cobalt blue, then a black band on the rim becomes apparent.³⁵⁸ Interior is turquoise blue.</p>	<p>2.8.1b- Detail of the moulded inscription on the shoulder – <i>iqbāl</i> or ‘prosperity’ repeated, at least four times between each boss and the spout. Overall diameter 28cm; height 16.5 cm.</p>
	
<p>2.8.2 – A moulded rosewater bowl excavated at Bilyar in monochrome cobalt blue, and the rim picked out in underglaze black.³⁵⁹ There is a relief band of repeated <i>iqbāl</i> (prosperity) on the shoulder. Diameter at mouth 19cm; diameter at widest 26cm; height 15.5cm; foot diameter 11cm. Image courtesy of Elena Barinova.</p>	<p>2.8.3 – A moulded inscripational relief bands from Saraichik excavations with a repeated <i>iqbāl</i> (prosperity) on the shoulder. No further information. After Samashev et al 2008.³⁶⁰</p>

³⁵⁸ Kramarovsky (2005), 145, cat # 631.

³⁵⁹ Valiullina (2002), 239, fig 4.

³⁶⁰ Samashev et al (2008), 237.

	
<p>2.8.4 – A moulded inscription band with one <i>iqbāl</i> and a second beginning. Rim has black band, otherwise monochrome turquoise. From Tsarevo and Selitryonnoye mixed box in National Museum, Kazan.</p>	<p>2.8.5 – A moulded bosse from a rosewater bowl found in the Saraichik excavations. No further information. After Samashev et al 2008.³⁶¹</p>

³⁶¹ *Ibid.*, 63.

2.9. Golden Horde Imitation Celadon

	<p>2.9.1 – Four fragments of Chinese celadon: the four-clawed dragon piece was excavated at Selitryonnoye by Burkhanov in 2000 (now in Astrakhan Museum inv no AMZ KP 4762A 8305);³⁶² the other three were excavated by Tereshchenko at Tsarevo in the 1840s.³⁶³ Now in State Hermitage inv nos Sar-144, 145 and 156.</p>
	
<p>2.9.2 – Section of an imitation celadon bowl from the Saraichik excavations. No further information. After Samashev et al 2008.³⁶⁴</p>	<p>2.9.3 – Almost complete imitation celadon bowl from the Saraichik excavations. No further information. After Samashev.³⁶⁵</p>
	
<p>2.9.4 – A Longquan celadon ribbed jar (left) with three imitation celadon ribbed bowls stuck together right.³⁶⁶ Excavated at Selitryonnoye, now in State Historical Museum, Moscow. Bowls inv no 2692-8 - diameter 12.1cm; height 6.6cm. Jar inv no 2671-47 – diameter 6.5cm; height 6.5cm.</p>	<p>2.9.5 – Chinese Longquan celadon bowl excavated at Qaraqorum³⁶⁷ – note how close the Saraichik bowls are to this in both shape and colour. The interior has a moulded decoration of lotuses and scrolling foliage.³⁶⁸ Diameter 20cm; height 9cm. Now in Ulanbator Museum, inv no Kar 2-9772.</p>

³⁶² Kramarovsky (2005), cat # 600.

³⁶³ *Ibid.*, cat # 632-634.

³⁶⁴ Samashev et al (2008), 254.

³⁶⁵ *Ibid.*

³⁶⁶ Fedorov-Davydov (2001), 162, cat # 76, pl 94.

³⁶⁷ München (2005), 192, cat # 217.

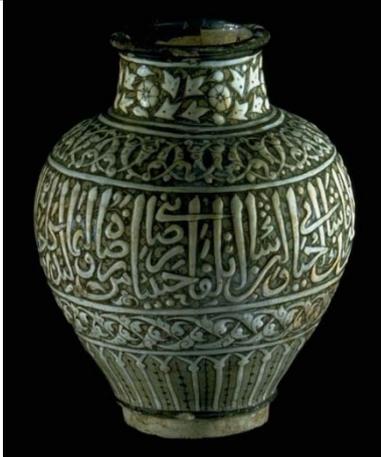
³⁶⁸ Carswell (2000), 110-11, #118 – an almost identical interior design found in a well in Aleppo.



2.9.6 – A rosewater bowl excavated in the Moscow kremlin in a fourteenth century context. No dimensions given, but there is a centimetre scale below the image. After Koval 2010.³⁶⁹

³⁶⁹ Koval (2010), pl. 10/1.

3.1. Mamlūk Coloured-ground Grey Relief

		
<p>3.1.1 – Large pharmacy jar in the Louvre collection, MAO 618. Height 32cm.³⁷⁰ Acquired in 1979 from the Gamsaragam Bey collection. The inscription has been read by Kalus,³⁷¹ who says it can be read on two levels – literally and more poetically. He likens the calligraphy to that found on inlaid bronze metalwork. Doris Behrens-Abouseif is working on a new translation.</p>		<p>3.1.2 – Top part of an <i>albarello</i> from the Danish excavations at Ḥamā citadel, 1935.³⁷² Two geese, with some cobalt plumage and red beak and legs process anticlockwise below the shoulder in a field of floating trefoil leaves and white circles with cobalt centres. The neck has a band of scrolling foliage. Height 21.4cm. Now in the National Museum, Damascus.</p>
		
<p>3.1.3- Small bowl base with three fish encircling the centre, touching noses, amidst a field of stemless, floating trefoil leaves. The exterior has white slipped arcading in typical Sultanabad style. No 476 in the GAMC collection in Room F. Diameter 4.6cm. From Fuṣṭāṭ.</p>		<p>3.1.4 – Full section of a small cup from the Danish excavations on the Ḥamā citadel, 1936 season.³⁷³ Three fish encircle the centre. The exterior has white slipped arcading on grey, in typical Sultanabad style. There is a recent drill hole in the foot ring, but nothing published as far as could be ascertained. Diameter 14.5cm; height 7cm. Now in the Ḥamā Museum.</p>

³⁷⁰ Bernus-Taylor (2001), 78.

³⁷¹ Bernus-Taylor and Kalus (1980), 98-99.

³⁷² Riis and Poulsen (1957), 220-21, Figs 76-61.

³⁷³ Ibid., 218 and 220, fig. 756.

	
<p>3.1.5a – Neck and shoulder of a small jar in the Berlin Museum storage, I.220, originally from Fustāt. Note the two geese to right and left on the shoulder, both with red beaks.</p>	<p>3.1.5b – Interior of small jar showing a colourless glazed lining. A buff, siliceous-paste sugary body with glassy glaze. Width at neck 5cm; height 6.6cm.</p>
	
<p>3.1.6 – Bowl base with a blue spotted striding feline in a ground of trefoil leaves, circles with blue dots and stylised lotus flowers with blue dots and a red calyx. From Fustāt, now in Berlin Museum storage, I.1836 Foot diameter 9cm; height 2.5cm. Two more bases with spotted felines were excavated in Ḥamā.³⁷⁴</p>	<p>3.1.7 – Bowl base with prancing richly caparisoned horse cantering right. It has a chequered blanket with circular blazons with horizontal red lines, and the saddle also has details in red, plus a red and white garland around its neck. Berlin Museum, no I.4930 from Fustāt. Foot diameter 11.5cm; height 2cm.</p>
	
<p>3.1.8a – Large bowl fragment with a cavetto decorated with a lotus flower highlighted in cobalt and red, and a peacock (?) with a red leg, on a grey ground infilled with disconnected trefoil leaves and one 5-petalled flower with a red calyx. From Fustāt.</p>	<p>3.1.8b – Exterior of bowl with white slipped arcading on a grey ground and the details outlined in black and black vertical lines with dots at intervals in the arcades. GAMC collection in Room F, no 453. Width 18.5cm; height 5.5cm.</p>

³⁷⁴ Riis and Poulsen (1957), 218-19, Figs 755 (type 3.1) and 751 (type 3.2).



3.1.9a – Broad, ledge rim fragment with alternating trefoil leaves and circles with blue dots around the rim ledge and an inscription in the cavetto divided by a blue medallion with a floral motif. Each band is framed with thick white slip-relief lines.



3.1.9b – Exterior with white slipped arcading with a central vertical line with black dots. Several new breaks reveal a whitish sugary body. Berlin Museum storage, I.6286, 18cmx6.5cm. From Fustāt.



3.1.10 – Base fragment from the Polish excavations at Kom al-Dikka, Alexandria. It is difficult to make out the actions of the goose in the centre, it looks to be flapping its wings in anger. Two white circles are highlighted with red and what looks to be a foot. The ground has foliage drawn in black and the absence of trefoil leaves is noted.



3.1.11 – Two fragments from the Polish excavations kindly provided by Małgorzata Redlak in reply to my enquiry about the presence of Īlkhānid Sultanabad. She believed these to be Īlkhānid. I had already seen these on my visit in 2001 and identified them as Mamlūk.

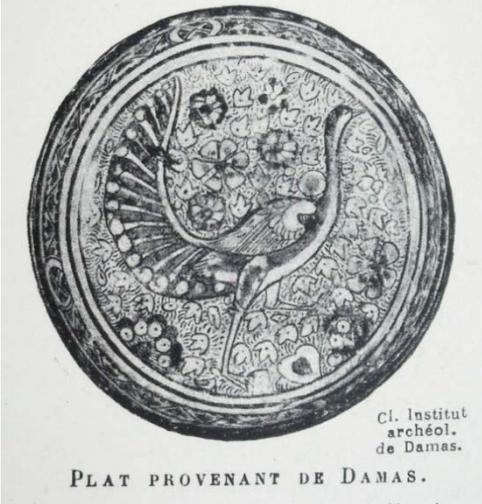


3.1.12 – Base fragment with a ?female head with a black and white neck decoration, perhaps a chain necklace, three-pearl drop earrings, and a blue scaly body, perhaps a mythical winged creature? The centre of the wing feathers is highlighted with red. The ground is grey with ‘floating’ trefoil leaves. The exterior has two bands in black above the foot and vertical blue strips with dotted black lines in between. In the Gayer Anderson collection in the cabinets in Room F, number 624. Diameter 8.2cm.

3.2. Mamlūk Non-relief Coloured-ground

	
<p>3.2.1 – Large <i>albarelo</i> decorated with four song birds amusingly depicted – each opening its beak a little more than that of its neighbour as the song unfolds. David Collection inv no 6/2006. Height 34.1cm. Provenance unknown, but thought not to have been excavated because it is in such good condition. Image taken from the website.</p>	<p>3.2.2 – A similar <i>albarelo</i> with songbirds in equally good condition in the Kuwait Museum collection, thought to have possibly been traded to Europe in the medieval period. Inv no LNS 187 C; diameter 17.4cm; height 29.8cm. Image kindly provided by the Dar al-Athar al-Islamiyyah, Kuwait.³⁷⁵</p>
	
<p>3.2.3 – Base fragment inscribed ‘<i>umila sanat khamsa wa ’ arab ’in</i> in Arabic -- ‘made in 45’ or the year 745/1345-6. Gayer Anderson, Room F, number 541; diameter 8cm. From Fustāt.</p>	<p>3.2.4 – Another base fragment with two song birds and inscribed with the same phrase and date as 3.2.3. Fitzwilliam inv no C.510-1991. Image taken from website – no measurements given. Ex HS Reitlinger collection and bequeathed 3.5.1950.</p>

³⁷⁵ Watson (2004), 400.

	
<p>3.2.5a – Rim fragment with a peacock’s tail in foliage of pointed trefoil leaves, lotuses, and white circles with blue centres. MMA 21.52.12. Most probably from Fustāt.</p>	<p>3.2.5b – Exterior with a pseudo-epigraphic band in black on white and cobalt arcading imitating lotus petals below. No dimensions given. Images taken from the website. Included in Jenkins’ analyses – ‘Syria’ group.³⁷⁶</p>
 <p>Cl. Institut archéol. de Damas.</p> <p>PLAT PROVENANT DE DAMAS.</p>	<p>3.2.6 – A bowl excavated by de Lorey at Bāb al-Sharqī, Damascus and published in Contenau’s article. Note the peacock’s tail which is similar to the fragment in 3.2.5. Whereabouts unknown, possibly in the American University in Beirut’s museum collection.</p>
	
<p>3.2.7a – Neck fragment, most probably from an <i>albarello</i> with traces of a flower amongst trefoil leaf foliage. From the Mamlūk levels of the Aleppo citadel Syro-German excavations, tenth season.</p>	<p>3.2.7b – Interior with a plain turquoise glaze. Locus number 10085. Both sides badly iridized – impossible to see the decoration on the exterior without wetting.</p>

³⁷⁶ Jenkins (1984), pl 1.c.



3.2.8 – Base fragment from the drawers in Room F, Gayer Anderson, number 623. The riderless horse stands restive amongst trefoil leaf foliage, lotus flowers and a ‘lollipop’ tree. The exterior is undecorated and has a lot of intrusions. White-buff body. From Fuṣṭāṭ. Diameter 9.3cm.



3.2.9 – A dish from the Danish excavations at Ḥamā,³⁷⁷ 1935 season, with a striding goose amongst trefoil leaf foliage and a wide flat rim decorated with alternating leaves and circles with a blue central dot. Now on display in the National Museum, Damascus. Diameter 20.7cm.



3.2.10 – Rim fragment from the Polish excavations at Kom al-Dikka, Alexandria.³⁷⁸ The large six-petal design in the centre of a plain circle is unusual, perhaps a blazon. Or pretensions of aspiring to have the right to one.



3.2.11 – Bowl base with a central finely drawn partridge amongst trefoil leafed foliage with lotuses and six-petal flowers – all details highlighted in cobalt blue. The exterior has two horizontal black bands as **3.2.12** below. Good white-buff body. Berlin Museum, I.1458. Diameter 9cm; height 1.2cm.

³⁷⁷ Riis and Poulsen (1957), 216 and 218, fig 746.

³⁷⁸ Redlak (2003), 50, fig 2, type 6.



3.2.12a – Base of a small high footed cup decorated with three fat fish with blue and white scales eyeing each other in the centre amidst a ground of trefoil leaves and white circles with blue dots. From the Syro-German excavations, tenth season, on the Aleppo citadel, Mamlūk context, locus 10088.



3.2.12b – Exterior of small cup with two thick black bands above the foot. The glaze has a greenish tinge and is thickly applied.



3.2.13a – The neck and shoulder of a jar from the German excavations at Ba ‘albakk. There is an inscription encircling the neck – can read *al-‘izz wa al-iqbāl* - ‘glory and prosperity’. The shoulder has floating trefoil leaves and traces of flowers highlighted with cobalt blue dots. Now in Berlin Museum collection, I.3408.³⁷⁹



3.2.13b – Interior without decoration and lined with a colourless glaze. Total diameter 16cm; neck diameter c. 9cm; height 8.2cm. The profile of a similar complete jar was published by Sarre.³⁸⁰



³⁷⁹ Sarre (1925), 128, #56, pl 21.

³⁸⁰ Sarre (1925), 116, fig 2.

<p>3.2.14a – Bowl base with a central stemcup on a ground of floating trefoil leaves with flowers and lotuses highlighted with blue dots. The cup has a knob on the stem below its bowl and is decorated with fleur-de-lis on a white ground below a chevron band below the rim. A white stick appears to be growing out of it. This could be a <i>sāqī</i>'s cup – a Mamlūk heraldic emblem for the cupbearer. Mayer's illustration has the same knob.³⁸¹</p>	<p>3.2.14b – Exterior which is iridized obscuring the decoration, which would appear to be arcading in black. Berlin Museum , I.2979. Diameter of foot 10.2cm; foot height 2 cm; height 6cm. No 57 in Sarre's publication.³⁸²</p>
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³⁸¹ Mayer (1933), 8 - #8 in the plate of 'Simple Charges'.

³⁸² *Ibid.*, 127.

3.3. Mamlūk Underglaze-painted Panel

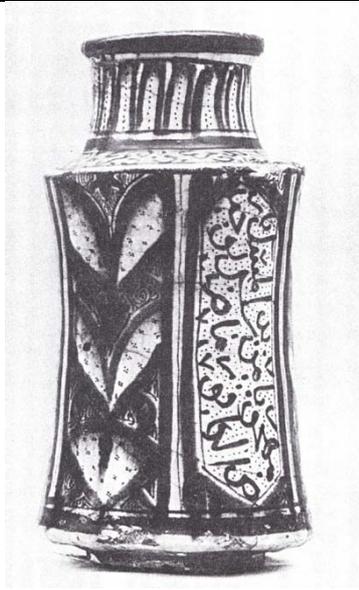
	
<p>3.3.1 – Large baluster jar in the V&A collection, inv no 618-1864. Accessed in the 19th century, this jar has no provenance, but included here for its decoration. Height 39cm; diameter at widest 26.5cm. Image from website.</p>	<p>3.3.2 – Neck of a smaller jar with a repeated inscription in black cursive script around it between cobalt circles with blue centres. There are traces of a vertical inscription below the neck. Berlin Museum, I.282, diameter 9.2cm; height 7cm. From Fustāt.</p>
	
<p>3.3.3 – Full section of a small cup on a low pedestal foot from the Mamlūk levels of the Polish excavations at Kom al-Dikka, Alexandria.³⁸³</p>	<p>3.3.4 – Two fragments of similar small cup on a low pedestal foot from a Mamlūk context on the Aleppo citadel, Syrian-German excavations, 10th season. Note the two polo sticks, of a <i>jūkandār</i> or polo-master.</p>

³⁸³ Redlak (2003), fig 1, type 4, lefthand image.



3.3.5a – A shallow bowl in the Islamic Ceramics Museum, Cairo, with alternating pseudo epigraphic and a crescent and bow motif – four of each –meeting in a central circle. No further information or provenance.

3.3.5b – Profile of bowl showing broad, ledge rim and simple exterior decoration of a series of three black, vertical lines linking a horizontal one top and bottom, all of the same width.



3.3.6 – *Albarello* dated 717/1317-18 in the Museo Capodimonte, Naples, Coll de Ciccio #5.³⁸⁴ Height 27.5cm. The Arabic script is cursive and without formality unlike that on type 3.1.1. No provenance. After Scerrato 1967.

3.3.7 – Undated *albarello* with pseudo-epigraphic panels from Ba'albakk in the Berlin Museum, I.3978. Diameter neck 9cm; height 27cm; diameter base 15cm.

³⁸⁴ Spallanzani (1978), fig. 11.

	
<p>3.3.8 – Base fragment in the Berlin Museum, I. 789; diameter 10.1cm; height 1.9cm. Heavily potted, white friable body with lot of kiln debris adhered to exterior. Found in Fustāt.</p>	<p>3.3.9 – Base fragment in the MMA 13.190.27, tested by Jenkins and placed in the ‘Syria’ group.³⁸⁵ Found in Fustāt. Image from website, no dimensions given.</p>
	
<p>3.3.10 – <i>Albarelo</i> neck fragment in the GAMC collection, Room F, no 542, dated something and 40 – <i>sanat</i> ..[?]... <i>wa`arab`in</i> in a panel bordered with a chequered pattern. Pinky-buff body. 4.8x5.5cm.</p>	<p>3.3.11 – Fragment of a bowl similar to no 3.3.5, with a better epigraphic hand. The exterior decoration is also similar, with alternating vertical stripes and a chequered panel all in black. Berlin Museum, I.910. Diameter c. 22cm. From Fustāt.</p>
	
<p>3.3.12 – Small base with yellowy body from GAMC collection, Room F, no 543. Traces of the panelling just evident. Inscribed with <i>sanat khamsat wa`arab`in</i> – ‘the year forty-five’. Diameter 4.6cm. From Fustāt.</p>	<p>3.3.13 – Small fragment of a cavetto panel with the hindquarters of a feline, and a vertical inscription band bordered with cobalt on black panels. In MMA collection, inv no 07.238.35. In Jenkins’ ‘Syria’ group.³⁸⁶ Image taken from the website. No dimensions given.</p>

³⁸⁵ Jenkins (1984), pl 4a.

³⁸⁶ Jenkins (1984), pl 4d.



3.3.14 – An almost complete bowl excavated by the IFAO team in a 13th/14th century domestic Mamlūk context at the NE corner of the Faṭimid/Ayyūbid wall of al-Qahirah.³⁸⁷ Image courtesy of the excavators. Note a deer or goat in the tondo and how alternating inscriptions (repeated ‘perpetual glory and increasing prosperity’) are highlighted in cobalt. Unpublished, but shown in a lecture at 7ICAANE, London April 2010.



3.3.15 - A so-called ‘chamber pot’ in the LACMA collection, M.2002.1.40. Formerly in the Madina collection C14.³⁸⁸ Diameter 15.6cm; height 11.4cm. Not strictly ‘panel style’, but included here for the profile.



3.3.16 – An *albarello* in the Ashmolean collection, inv no 1978.1683, ex-Reitlinger collection. Bought from Garabed 10.5.1926 and believed to be Īlkhānid, but the shape confirms its Mamlūk origins. It has a pseudo-*naskhi* inscription on the shoulder. Height 25.4cm. A similar example was excavated at Tell Abū Ṣukhayr, al-Daura, south of Baghdad in 1977.³⁸⁹

³⁸⁷ Pradines, email, 17.6.2012.

³⁸⁸ Atıl (1981), 170, cat #79.

³⁸⁹ Shammri (1986), 233. See Chapter 3, section 3.17.4.

3.4. Mamlūk Underglaze-painted Geometric

	
<p>3.4.1a – Ledge-rimmed bowl on a ringfoot with two spur marks in the tondo. It has a central palmette design inside a scalloped hexagon framed by an S-band. The cavetto has repeated trilobed lozenges with cobalt crosshatching and a vegetal motif in the interstices, the rim has another S-band in a red-brown and blue on white.</p>	<p>3.4.1b – Exterior view with stylised vegetal band with ‘fir tree leaves’ and blue circles for flowers below a solid black banded rim. The thick glaze is almost opaque, body pinky-buff. The foot ring is unglazed. Ex HS Reitlinger collection, Fitz 540-1991.³⁹⁰ Diameter 21.3cm; height 5.3cm; foot diameter 7.2cm.</p>
	
<p>3.4.2a – A large, ledge-rimmed bowl on a foot ring with three spur marks in the tondo. It has a central six-pointed star with a sixteen-petal flower inside. This is encircled by a guilloche band and then an S-band as in no 3.4.1. The tondo has a motif formed by two diamonds linked by a bar infilled with stippled dots, the rim a zigzag pattern.</p>	<p>3.4.2b – Profile decorated with three vertical cobalt stripes and a vertical zigzag in black between each group, same as that on no 3.6.1b. Note how the thick glaze has dripped and formed large globs, like icicles. Formerly in Reitlinger collection, now Ashmolean 1978.1610. Diameter 33.8cm; height 8.4cm; diameter foot 10.7cm. Bought Moussa and Meskene 1938.</p>

³⁹⁰ Sotheby's (1986), 48, lot 159.



3.4.3 – Base fragment with a central seven-petal flower in cobalt framed by a six-pointed star which forms a hexagon around the flower. The points are infilled with stippling and it has three spur marks. MMA inv no 08.256.97, from Egypt, diameter 9.5cm. Base unglazed, body coarse white siliceous-paste. Image from website.



3.4.4 – Base fragment with two prominent spur marks in the tondo which is decorated with blue and white pentagon framing a cobalt blue fleur-de-lis; each side of the pentagon has a pointed arch which forms a foliated flower as in no 3.5.1. All interstices infilled with black brackets and dots. In MMA inv no 08.256.7, image from website, found in Egypt. White siliceous-paste body. Diameter 7.5cm. Not mentioned in Jenkins' article.



3.4.5 – Ledge-rimmed bowl with an octagonal decoration created in a reserved white ground by a plain cobalt infill. The centre has an eight-petal cobalt flower on white framed with an arched stellate band outlined in black infilled with a grey slip, imitating the coloured-ground technique. The rim is a series of black fish or tadpoles which have now become elongated teardrops. Formerly Madina collection C23, now in LACMA collection, M2002.1.51.³⁹¹ Diameter 26.4cm; height 6.3cm. Photographed on display, not handled.

³⁹¹ Atıl (1981),



3.4.6a – Base fragment of a large bowl decorated with central six-pointed star in the tondo, only three points remain. The cavetto looks as though it has alternating panels of pseudo-epigraphy, cobalt stripes and another with dots and lines. There are two spur marks. Its glassy glaze makes it difficult to photograph.



3.4.6b – Exterior with unglazed foot ring, with a snail-like design in black painted inside, and globular glassy glaze dripping down the sides, with traces of blue and black decoration above two thin black bands. From Fustāt and now Ashmolean inv no 1959.40. Very heavy white siliceous-paste body, diameter 14.5cm.



3.4.7a – Base fragment from Fustāt decorated underglaze, but also with a white slip over a gritty red Nile clay body. Three prominent spur marks.



3.4.7b – Exterior revealing a thinner slip over the red body, which fails to mask it at the foot where it was not slipped. Ex G Reitlinger collection, now Ashmolean inv no 1978.2455. Foot diameter 6.8cm.

3.5. Mamlūk Underglaze-painted Shells

	
	<p>3.5.1 – Heavily potted ledge-rimmed shallow bowl with a floral geometric pattern formed from a central six-pointed star. The formula is that of geometric Īlkhānid examples, but the heavy pinky-buff body, the thick slip on the exterior, and the green hue of the black reflect a carelessness not found in Iranian wares, other than provincial copies. Turquoise is included in the palette, and the shell motif adds to the argument for its Mamlūk classification. LACMA M.2002.1.53, formerly Madina C25. Diameter 33cm; height 7.6cm.³⁹²</p>
	
<p>3.5.2a – Small bowl with four shells in the cavetto with an interlace frame in cobalt blue. The tondo has a central rosette. The interstices are filled with black silhouetted leaves. Formerly in the Madina collection C19, now in LACMA collection, M.2002.1.46. Diameter 15.8cm; height 8cm; foot diameter 4.8cm. Glaze pooled on exterior.</p>	<p>3.5.2b – Profile with exterior decoration imitating number 1.5.1, but more loosely drawn and much simplified. The foot is splayed, unlike the typical straight one and has no bobble on the interior. The white ground is rather yellowy, indicating a conservator has used an unsympathetic product at some stage.</p>

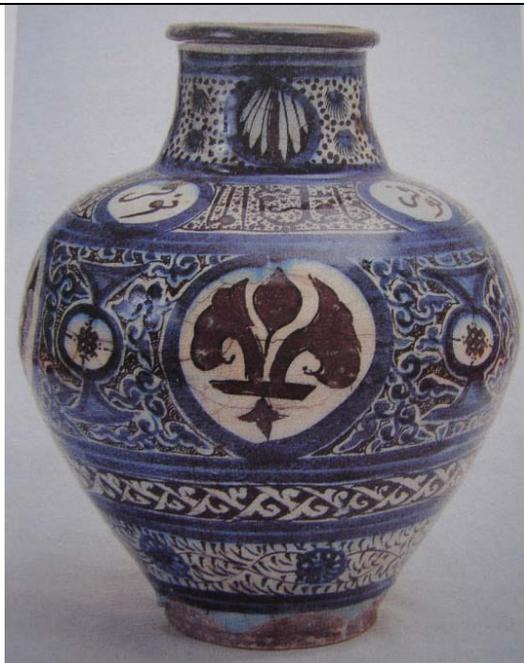
³⁹² Atıl (1981), 156-57, cat #69.



3.5.3 – Bowl fragment in the MMA collection, 08.256.275, in Jenkins’ ‘Syria’ group.³⁹³ Provenance unknown, probably from Fustāt.



3.5.4 – Large dish formerly in the Henri Pharaon collection, Beirut³⁹⁴ and now in the David Collection, 21/1992.³⁹⁵ Diameter 35cm; height 8.5cm. No provenance.



3.5.5 - Large baluster jar decorated in cobalt, black and red-brown on white in horizontal panels with a prominent fleur-de-lis inset in a medallion. The inscription on the shoulder reads: “this was made for the water (?) of the Hospital of al-Nur, may God sanctify his soul and illuminate his grave.”³⁹⁶ In the medallions on the shoulder is the Arabic word *nawfar* (نوفر or water lily). Extracts of this plant were used in medicines and it is thought this was a medicine container for the *maristān* or hospital of Nūr ad-Dīn, commissioned by Qalawūn (r. 1279-1290).³⁹⁷ Now in Doha Museum, inv no PO.40.1999. Height 36.5cm.

³⁹³ Jenkins (1984), pl 7a.

³⁹⁴ Sursock (1974), 113, #27.

³⁹⁵ Copenhagen (1996), 154 and 166, cat #128; Folsach (2001), 164-65, #202.

³⁹⁶ Gibbs (2000), 27, fig 10.

³⁹⁷ *Ibid.*, 27-28.

3.6. Mamlūk Underglaze-painted Basketwork

	
<p>3.6.1a – Three bowls stuck together with tripod trivets still in place between the bottom and middle ones. The interlace design with circles infilled with cobalt crosshatching and ogival shapes infilled with palmettes form a basket-weave decoration. MMA inv no 1911, 11.61.1.</p>	<p>3.6.1b - Profile of the three bowls. Note the different treatment of the exterior designs. With vertical lines and squiggles on bottom one, as in numbers 3.4.2 and 3.4.4, and on the middle bowl the blue blobby flowers with the thin black stylised vegetal scroll. Acquired in 1911 from Noorian. Said to have been found in an old cemetery in Damascus. Formed the basis for Jenkins' 'Damascus' group, which included tiles.³⁹⁸ General diameter 18.2cm.</p>
	
<p>3.6.2 – Rim fragment with the centres of the basket-weave interlace filled with cobalt blue crosshatching. The interlace decoration is outlined in black. MMA 13.190.163. From Egypt, no further information. Image taken from the website.</p>	<p>3.6.3 – Base fragment with three spur marks. It is decorated with a similar interlace, with the centre being a circle with crosshatching in blue. The next band looks floral, or a palmette, rather like bowls 2 and 3 in number 3.6.1. Too fragmentary to gauge. From Egypt or Syria, no further information - MMA 13.190.172. Image taken from website.</p>

³⁹⁸ Jenkins (1984), pl 9c and d.

	
<p>3.6.4a – Medium sized dish with everted rim and thick, white siliceous-paste body. Interior decorated in blue and black on white with basketwork interlace. It has three off-centre spur marks. Khalili pot 118. Images courtesy of the Nour Foundation.</p>	<p>3.6.4b – Profile of dish with exterior decorated in thick blue horizontal bands framing a scrolling motif of blue blobby flowers with stylised black stems and leaves, similar to the ‘fir tree leaves’. Foot unglazed. Diameter 26.8cm; height 6.5cm. No provenance.</p>
	<p>3.6.5 – Base fragment with yellowy, porous siliceous-paste body. The centre is decorated with a seventeen-petal flower on a blue ground framed with a band of blue and one of black before the interlace begins. Note the blue crosshatching on the interlace. The turquoise splash is a firing error. There are two prominent spur marks, the third will be on the broken off piece. Exterior unglazed. The interior glaze is crackled but very clear. MMA inv no 13.190.140. Diameter 10.5cm. From Fustāṭ. Image taken from website.</p>

3.7. Mamlūk Imitation Celadon

	
<p>3.7.1 – Identical imitation Longquan beaker to one excavated by Scanlon at Fustāt.³⁹⁹ V&A 1779-1897. Diameter 8.9cm; height 15.9cm. Gift of Major WJ Myers, found in Fustāt. Image taken from website.</p>	<p>3.7.2 – Identical to one excavated by Scanlon at Fustāt.⁴⁰⁰ MMA inv no 13.190.100 – no further details given, other than it came from Egypt. No dimensions given. Image from website.</p>
	
<p>3.7.3 – Plain cup in the same form as 3.7.1 without the grooves, ‘excavated’ in Fustāt by Hornblower. Earthenware body. V&A 1422-1921 – diameter 5.7cm; height 8.3cm. Image taken from the website.</p>	<p>3.7.4 – Facetted <i>albarello</i> with pale celadon glaze. ‘Excavated’ in Fustāt by Hornblower. Earthenware body. V&A 1418-1921. Diameter 8.2cm; height 15.2cm. Image taken from the website.</p>

³⁹⁹ Scanlon (1984), 117, pl 3.

⁴⁰⁰ *Ibid.*, pl. 4, bottom right.

3.8. Mamlūk Black under Transparent Turquoise Glaze

	
<p>3.8.1a – Body fragment with panel style decoration from a Mamlūk context on the Aleppo citadel, tenth season, locus number 10088. Heavily iridized, photography only possible by spraying with a little water.</p>	<p>3.8.1b – Exterior with double vertical lines in black. Inscription on interior panel probably legible with the aid of a little moisture.</p>
	
<p>3.8.2a – Full section of a bowl with an interlace design in the cavetto and two panels of pseudo epigraphy, and a zigzag design on a ledge rim. Very glassy glaze. Diameter c. 34cm; foot diameter c. 9cm.</p>	<p>3.8.2b – Exterior with a series of double vertical black lines as on number 3.8.1b. From a box labelled ‘Egypt or Syria’ in the Ashmolean inv no 1978.2456, ex-Reitlinger collection. Yellowy body, possibly calcareous clay, with a lot of airholes.</p>
	
<p>3.8.3a – Base with a fleur-de-lis design in the tondo; details and infill a series of diagonals. Traces of an interlace pattern in the cavetto, forming a basket-weave pattern. Ashmolean inv no 1978.2450, ex-Reitlinger collection. In the ‘Syria or Egypt’ box.</p>	<p>3.8.3b – Exterior of base with a non-glazed foot ring, diameter 10.5cm. The glassy turquoise glaze finishes about 3cm above the foot. Can see a couple of horizontal black lines under the glaze, which is well applied and has not dripped.</p>

3.9. Mamlūk Underglaze Blue, Black and Red

	<p>3.9.1 – Base of a bowl with a shield-shaped central motif framed with a white inscription band reserved in black, which is part of an interlace design, in black, blue and red on white. The red is used sparingly on the central circle with white in a chequered pattern. Cobalt is used for a winged palmette design in the lozenges formed by the interlace pattern. MMA collection, 08.256.117. Image from website. No measurements given.</p>
	 <p>3.9.2a – Body fragment of a bowl with the beginning of the tondo decoration which has a blue-headed parrot (or falcon?) with a red beak in foliage. An inscription band in black on white encircles this. The ground has a fill of fine, light stippling.</p> <p>3.9.2b – Exterior with a schematic scrolling foliage design in black. Fine siliceous-paste body. Found in a mixed Mamlūk context on the Aleppo citadel, locus number 10088, in the 10th season.</p>
	 <p>3.9.3a – Bowl base decorated with a falcon attacking a duck on a blue ground, with red highlights. The scrolling palmettes and the circle and spike band around the tondo frame are typically ‘Ayyūbid’, but the composition is new and it is tempting to see this as ‘experimental’ early Mamlūk.</p> <p>3.9.3b – Exterior of base with an unglazed foot and no sign of any decoration (ignore the iron mounting band). Keir collection, London. Diameter 11cm. Bought at Sotheby’s in the 1970s.⁴⁰¹ There is a complete bowl with a similar design in the Louvre, MAO 634.⁴⁰²</p>

⁴⁰¹ Grube (1976), opp 249, #216.

⁴⁰² http://cartelen.louvre.fr/cartelen/visite?srv=car_not_frame&idNotice=22221&langue=en.

APPENDIX A

**CATALOGUE OF DESIGN MOTIFS
FOR ĪLKHĀNID, GOLDEN HORDE AND MAMLŪK GLAZED PAINTED
WARES WITH A SILICEOUS-PASTE BODY**

1. Īlkhānid Design Motifs

		
<p>1a. Mongol dress and folding stool amidst ‘cotton-boll’ leaves, lotuses and flowers.⁴⁰³</p>	<p>1b. Turbaned figure in Mongol amongst floating foliage.⁴⁰⁴</p>	<p>1c. Īlkhānid stool and Mongols in a Rashid ad-Dīn manuscript.⁴⁰⁵</p>
		
<p>1d. - T-rim with ‘cotton-boll’ leaves decorating the interior⁴⁰⁶.</p>	<p>1e. The zigzag motif panel characteristic of type 1.4.⁴⁰⁷</p>	<p>1f. Mahmud ibn Sebuktegin overseeing the attack of the <i>arg</i> of Zarang, Sīstān, with ‘coloured-ground’ over coat.⁴⁰⁸</p>
		

⁴⁰³ BM 1952 - 0124.6. The folding stool is frequently found in manuscript illustration.

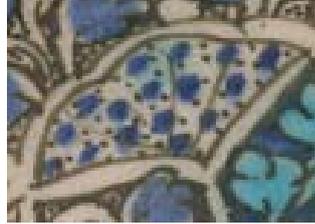
⁴⁰⁴ BM 1928, 0121.1.

⁴⁰⁵ Staatsbibliothek Berlin, Orientabteilung, Diez A fol. 70. Image from website.

⁴⁰⁶ V&A C.52-1910. No provenance. Image from website

⁴⁰⁷ David Collection, inv no Isl 95, dated 667/1268. Image from website.

⁴⁰⁸ Fitzhugh et al (2009), chapter heading, from Edinburgh Rashid ad-Dīn *World History*, Arab 20, fol 54, dated 706/1306/7 – see Talbot Rice (1976), 182.

<p>1g. T-rim bowl exterior panels of ‘cobalt and box’ motif.⁴⁰⁹</p>	<p>1h. T-rim exterior panels of ‘cobalt and box’ motif.⁴¹⁰</p>	<p>1i. Flat rim with ‘cobalt and box’ motif.⁴¹¹</p>
		
<p>1j. Hemispherical bowl rim with ‘cobalt and box’ and knot interlace.⁴¹²</p>	<p>1k. Polychrome ‘dot and dash’ motif.⁴¹³</p>	<p>1l. Khurasani careless stippling.⁴¹⁴</p>
		
<p>1m. Imitation inlaid metalwork frieze.⁴¹⁵</p>	<p>1n. Door jamb with quatrefoil design.⁴¹⁶ This design appears frequently on Īlkhānid coins too.⁴¹⁷</p>	<p>1o. ‘Flying hairy object’ – detail of Catalogue number 1.4.13.</p>
		
<p>1p. Peacocks’ eyes filler.</p>	<p>1q. Zigzag filler.</p>	<p>1r. Variation on peacocks’ eye filler.</p>

⁴⁰⁹ Willey Ayīz bowl.

⁴¹⁰ Berlin Museum collection, TS 121, I.13/69.

⁴¹¹ Detail of #1.5.2.1a.

⁴¹² Ashmolean, 1978.1650.

⁴¹³ Freer Gallery, S1997.129.

⁴¹⁴ Fitzwilliam, C.505-1991.

⁴¹⁵ Detail of Sulṭāniyya #1.5.1.4b – see Catalogue.

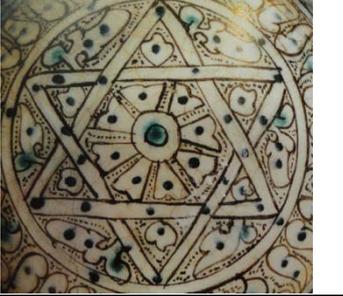
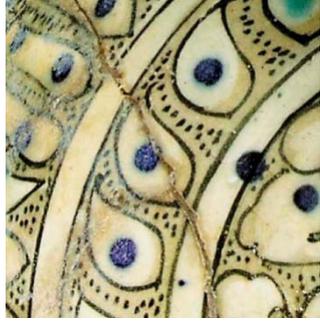
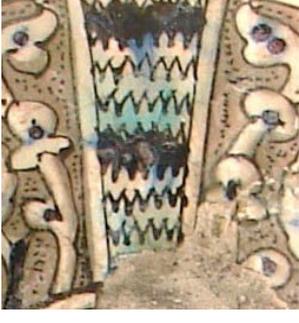
⁴¹⁶ Carved decoration at entrance to the red sandstone building at Takht-i Sulaymān.

⁴¹⁷ Lutfi and Janabi (1978), 211.



1s. The black fish motif under a transparent turquoise glaze.

2. Golden Horde Design Motifs

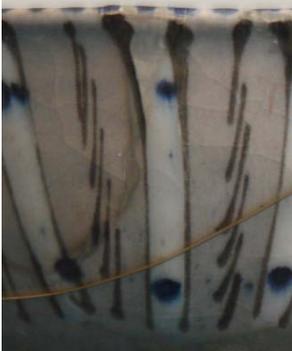
		
<p>2a. Type 2.1 - fragment from the mixed Selitryonnoye and Tsarevo boxes in the Kazan Museum.</p>	<p>2b. Type 2.1 – Detail of a tondo of a bowl excavated at Tsarevo by Tereshchenko. After München (2005).⁴¹⁸</p>	<p>2c. ‘Amoeba-like blobs’ – detail from a bowl in the Bolgary Museum, see Catalogue number 2.1.5 for details. Note careless stippling, which is unusual for this type.</p>
		
<p>2d. Type 2.1 – detail of the tear-drops/commas/fish. Image courtesy of Christie’s London.⁴¹⁹</p>	<p>2e. Type 2.1 – detail from no 2.1.1a. Note the rounded trefoil leaf, in contrast to Mamlūk pointed ones.⁴²⁰</p>	<p>2f. Type 2.1 – detail of the rounded rosettes; a the 5-petal flower reserved on a blue ground is the centre of the bowl. No 594 in Kazan catalogue.⁴²¹</p>
		

⁴¹⁸ München (2005), 238, #273. State Hermitage, inv no Sar-254. Diameter 18.8cm; height 9cm.

⁴¹⁹ Folsach (2001), 173, #223; diameter 18.7cm; height 8.9cm.

⁴²⁰ Kramarovsky (2005), 144. Detail from no 506 in Kazan catalogue.

⁴²¹ *Ibid.*, 141, 254. From Selitryonnoye, excavated by Fedorov-Davydov in 1969, now in Astrakhan State Museum, inv no AMZ KP 16257/19 A 7544; diameter 31cm; height 7.5cm; foot diameter 10cm.

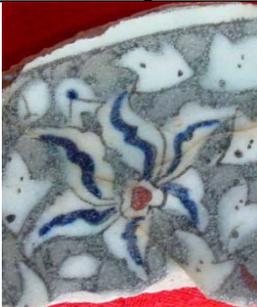
<p>2g. Type 2.1 – detail of a central lotus frame with a chevron band. Image after München.⁴²²</p>	<p>2h. Type 2.1 – zigzag motif as a dividing device. Detail from no 2.1.3a.</p>	<p>2i. Exterior of 2h, copying no 1.5.1.4b. The cobalt vertical lines almost black and no slip relief despite it being type 2.1.⁴²³</p>
		
<p>2j. Type 2.1 - Detail from a bowl with a slightly everted rim – note no arch, the decoration has been simplified.⁴²⁴</p>	<p>2k. Type 2.4 – Detail from Catalogue number 2.4.1b ‘Circle and trellis’ motif.</p>	<p>2l. Type 2.4 – Detail from Catalogue number 2.4.2a – a stylised lotus flower that morphs into a shell pattern in Mamlūk designs – see</p>
	<p>2m. Type 2.7 – Detail from a polychrome enamelled tile from Kunya Ürgench site museum – this 6-petal stylised flower was also used in black under a transparent turquoise glaze – Mizdakhkan finds from Kdirnyazov’s excavations in 2002.</p>	

⁴²² München (2005), 239, #276. Excavated at Tsarevo, now in State Hermitage, inv no Sar-254. Diameter 18.8 cm; height 9cm.

⁴²³ See details for #2.1.3a.

⁴²⁴ Kramarovsky (2005), 140, 255, #625.

3. Mamlūk Design Motifs

		
<p>3a. – Detail of Catalogue number 3.1.6. Trifoliate leaf and bull's eyes with blue centres. Note the red-slipped calyx of a stylised lotus flower.</p>	<p>3b. – Detail of Catalogue number 3.1.8a. Lotus on a ground of 'floating' leaves with a red-slipped stigma.</p>	<p>3c. – Detail of Catalogue number 3.2.4. Trifoliate leaf, bull's eyes and daisies.</p>
		
<p>3d. Large brass basin dated between 1330-1341.⁴²⁵</p>	<p>3e. Detail of a fourteenth century illuminated verse heading from a Mamlūk period <i>qur'ān</i>. Freer Gallery S1997.98. Image from website.</p>	<p>3f. Detail from a Chinese silk tapestry with phoenixes on a field of flowers, E Central Asia, 13th century. After Komaroff and Carboni 2002.⁴²⁶</p>
		
<p>3g. Detail of 3.5.2b – although similar to the motif in 1m, it is much more loosely drawn and lacks the circle at the top of the cobalt downstroke.</p>	<p>3h. Detail of no 3.1.1, which copies no 1.1.2 closely, but the arcading is more pointed.</p>	<p>3i. Detail of the arcading, lowest register on no 3.3.1.</p>

⁴²⁵ Ward (1993), 111, fig 88, BM OA 1851.1-4.1 – inscriptions bear the name of Şultān Muḥammad ibn Qalāwūn.

⁴²⁶ Komaroff and Carboni (2002), 174, fig 203, cat # 187.

		
<p>3j. Detail of a lozenge with 4-dot clusters from a rim fragment, no 3.3.11, Berlin Museum collection inv no I.910.</p>	<p>3k. Detail of cobalt ring divided by 4 arcs to create a central 4-sided concave space and 4 lozenges infilled with clusters of 4 dots. Part of design on no 3.3.7, Berlin Museum collection inv no I.3978.</p>	<p>3l. Detail of 'fir tree leaves' and blue flower exterior decoration from no 3.4.1b.</p>
	<p>3m. The geometric 'S' pattern normally found on Mamlūk <i>sgraffito</i> wares. The bands of geometric guilloche to either side are taken from metalwork designs.</p>	

APPENDIX B

AN EXAMPLE OF SOME PROBLEMS WITH PETROGAPIC ANALYSIS

The idea and principles of establishing diagnostic criteria for finger printing archaeological ceramic material by their trace elements is without doubt a great leap forward. However, with too few examples taken, doubtless due to limited budgets, some extraordinary conclusions have been made. In some cases scientific reasoning and common sense are at variance, in the vain hope of providing a solution. Let me give as an example the case for Diyār Bakr (more correctly the capital of the Diyār Bakr province, Āmid) as a possible manufacturing site. Finds from Sirāf and the East African site of Kisimani Mafia have been identified as having the same petrofabric, styled “Indian Ocean,”⁴²⁷ and on geological probability alone, Diyār Bakr has been suggested as a manufacturing site.⁴²⁸ Golombek evidently found this coincidence attractive, linking the Aq Qoyunlu capital with a ceramics industry, and citing Diyār Bakr as being conveniently placed for the East African market, in its “position at the head of the navigable Tigris.”⁴²⁹ But it is impossible to establish the basis of her argument that the Tigris was navigable to this point for commercial purposes. According to Le Strange,⁴³⁰ who does not quote his source, the Tigris was only navigable from below its confluence at Tell Fāfān, well below Diyār Bakr.

However, I have found one European who took this route, the young Venetian traveller and adventurer, Ambrosio Bembo, in January 1673. He left Aleppo on the 3rd, going overland crossing the Euphrates at Birecik and onto Āmid and the Tigris, arriving there on the 16th. This is his account:

⁴²⁷ Mason (1996), 18.

⁴²⁸ *Ibid.*, 36 and Golombek (1996), 130.

⁴²⁹ Golombek (1996), 130.

⁴³⁰ Le Strange (1965), 113.

“On the 23rd I went to the river to see if I could stop a kielek, or kalak,⁴³¹ which are barges that go to Baghdad by the river. I had already decided to travel by river since there were no caravans preparing to go to that city. Besides, the overland trip is long and tiring; although the trip by river is more dangerous, it is much faster and easier and can be undertaken when one wants. By land it is necessary to wait two or three months before getting together a caravan for those parts. In addition, since it was winter, the river was full, and the river trip would be faster and less dangerous; whereas on land there would be mud, and one would have to stop for months in some village if the roads were impassable. In the summer, however, the overland trip is more practical, since the days are long and the ground is dry; and at that time the river has little water and cannot be travelled.”⁴³²

Finding a *kalak* was not that easy either and he finally secured a small one on the 4th February, reaching Baghdad on the 18th. His account indicates that it was an extremely precarious and dangerous form of transport. Certainly the eighteenth century foreign merchants resident in Aleppo preferred the desert routes.⁴³³

Another useful source is the 1830s’ British Government surveys of the Tigris and Euphrates led by Colonel Chesney.⁴³⁴ Chesney, citing James Brant, the British Consul in Erzerum,⁴³⁵ as an additional source for the state of the Tigris at Diyār Bakr relates:

“The Tigris is navigable for rafts at certain seasons from the bridge at Diyār Bekr to Mósul, a distance of about 296 miles. Below the latter place it is more or less so throughout the year; and the descent to Baghdád is performed with such ease and speed that the river is known by the expressive name of the cheap camelier. Large rafts supported by 200 or even 300 inflated skins are much in use for the transport of goods; and, when the merchants are on board, a small room is raised on the raft in order to give shelter from the sun and rain. During the flood season the voyage is performed in three or four days; whereas at another time it requires about fifteen days.”⁴³⁶

Brant is less specific, and states:

“The Tigris is not used as a channel of transport so high up as Diyār-bekr, but rafts of timber are sometimes floated down from the mountains above

⁴³¹ Raft with inflated animal skins for buoyancy.

⁴³² Bembo (2007), 101.

⁴³³ Carruthers (1931).

⁴³⁴ Chesney (1850).

⁴³⁵ Brant (1836), 210.

⁴³⁶ Chesney (1850), vol. 1: 32.

the town."⁴³⁷

Chesney was looking for an alternative trade route to India from the Mediterranean, but even with his more optimistic reporting, I think we can safely surmise that water-born transport from Diyār Bakr was precarious at best, and limited to the winter months. This certainly does not preclude the possibility of an industry and an annual export of the year's production. Perhaps it was more suited to transporting the raw materials, to Mosul or Baghdad. I think pack transportation would have been quicker (the route went through Mardīn and Nusaybīn)⁴³⁸ and that Diyār Bakr remains a very long way from its proposed Indian Ocean markets. Golombek presents insufficient evidence for her hypothesis. Curiously, the later possible manufacture of tiles at Diyār Bakr, as proposed by Raby,⁴³⁹ is not even mentioned in support of their argumentation. Nor, the earlier proposal by Soustiel that a ceramics industry was established there at sometime in the thirteenth and fourteenth centuries.⁴⁴⁰ Raby even cites the discovery, which apparently went unrecorded, of four kilns revealed in the 1930s when excavating for house foundations near the Ziṅçilkirān türbe.⁴⁴¹ It is surprising that the Canadian team did not seek one of these tiles in a Western collection to compare its petrofabric with their existing corpus. An earlier reference to Āmid as a pottery production centre is also ignored - in the Geniza documents Goitein cites the following:

*"Fustat itself produced a fine earthenware, ghaḍār. "A basket of good ghaḍār made in Āmid [today Diyarbakir, Turkey] or Fustat" was ordered in a memo sent from Aden to the capital of Egypt around 1140. "I happened to get here [Fustat or Alexandria] carnelian red ghaḍār and everyone envied me for this."*⁴⁴²

⁴³⁷ Brant (1836), 210.

⁴³⁸ Kennedy (2002), 24-25; and Hende (1819), 232-34.

⁴³⁹ Raby (1977/78), 429-459.

⁴⁴⁰ Soustiel, Jean (1985), 245.

⁴⁴¹ Raby (1977/78), 447.

⁴⁴² Goitein (1983), 146.

While this correspondent would appear to be referring to glazed red earthenwares it is a further indication that Diyār Bakr had a pottery industry as early as the 12th century, but by inference it was traded through Fustat to Aden and not via the Gulf ports. Mason is also referring to a siliceous-paste ware with a significantly lower quartz content of only 50-69% and not an earthenware.⁴⁴³

In conclusion, there is too little evidence to support Mason's hypothesis in the case of Diyār Bakr. His basic premise was that this area was a useful source of basaltic quartz. Perhaps in the future it will be possible to 'finger print' siliceous-paste products, but for the time being this branch of science must be treated with extreme caution.

⁴⁴³ Mason (1996), 36.

