From Basra to Canton: Trade and innovation in the Abbasid period.

Lecture By: Jessica Hallett
Presented in English
16 May 2005

With unusual swiftness and without apparent precedent, the humble character of Near Eastern pottery changed radically in the ninth century, under the powerful Abbasid dynasty (749 –1258 AH/1348 – 1842 AD). Potters in Iraq began to produce ceramics that were technically superior to any previous pottery made in the region, and in less than forty years they transformed common clay into a vehicle for complex painted decoration. The main impetus for this dramatic transformation was international trade and the opening of the direct sea route from Iraq to China. The arrival of Chinese ceramics in the Gulf had a dramatic influence on Abbasid taste, and inspired fundamental and enduring changes to the production and marketing of fine pottery in the Islamic world for the following millennium.

The earliest record of Chinese pottery in Abbasid Iraq is the famous account of the gift to the Caliph Harun al-Rashid (ruled, 786 - 809 AH/1384 – 1406 AD) comprising “twenty pieces of imperial China ware, including bowls, cups and half-cups; the likes of which had never been seen at the Caliph’s court before,” as well as two thousand other pieces not described. The gift sent by ‘Ali ibn ‘Isa, the governor of Khurasan obviously included some exceptional items that were probably acquired via the Central Asian land-route, possibly through diplomatic gifts. These wares came to be known outside of court circles when larger shipments of Chinese ceramics arrived by way of the overseas route shortly thereafter. Increased demand for these imports, especially the small bowls from the Gong Xian kilns in Northern China, inspired Iraqi potters to make imitations for a wider market.

The shiny white surface and hard compact body of Chinese pottery had no local equivalent in the Middle East (figure 1). Iraqi craftsmen were swift to respond, first by imitating the Chinese ceramics and then by adding elaborations of their own. Neither the essential raw material (white kaolin clay) nor the kiln technology for replicating Chinese high-fired white stoneware was locally available. The Iraqi potters sought instead to recreate the visual effect: the whiteness and the shapes of Chinese imports. Their efforts led to the creation of elegant vessel forms and the invention of an opaque-white glaze capable of masking the cream-coloured earthenware clay of Iraq; the first tin-opacified lead glaze, the antecedent of the medieval and modern European “tin glaze.”

With the achievement of a pure white surface, new decorative possibilities came within range, and the Chinese aesthetic of simple lines and volumes was soon being emblazoned with colour and design. Pride in their accomplishment and a desire to indicate the true origin of their wares led the Iraqi potters to sign their first pieces in Arabic, as if with pen-and-ink on paper, by the second quarter of the ninth century. Their choice of a dark cobalt blue pigment — dramatically contrasted against a white background — was the first experiment with the now familiar concept of blue-on-white (figure 2).

The potters’ quest for an expanded range of colours ultimately led them to experiment with pigments used in glass painting, by the middle of the ninth century. Mixtures of copper and silver were painted onto a previously fired glaze, and then converted by reduction to an iridescent metallic film in a second kiln firing. With the invention of this overglaze lustre technique, the glazed surface was truly transformed into a colourful canvas. The potter entered the world of the painter, transforming common earthenware into a vehicle for complex visual messages.

Multiple colours of lustre, ranging in hue from olive green through crimson, could be achieved by varying the pigment composition, as seen in the magnificent bowl in the al-Sabah Collection (figure 3). These characteristics of early lustre — colour, iridescence, and painting — imply not only a difference in references but also a difference in the industry’s vision and a desire to create an identity which was separate and distinct from Chinese ceramics. Glass vessels along with precious metal have long been assumed to have been the court standard for tableware and this fashion undoubtedly served as the inspiration for this redirection of the industry’s experiments.

The great technological achievements of the industry were accompanied by wide commercial success and its wares have been found from the South China Seas to the Atlantic Ocean. Its activities went beyond the limited scope of court commissions to manufacturing wares for local and international consumption, and its wares have been found on almost every recorded settlement of any significance in the Abbasid period, from the largest metropolitan centres to the smallest mining sites, from Samarran to the Algarve. They also have a wide seaborne distribution and have been found at port sites across the Indian Ocean from East Africa to Thailand.

Behind this blossoming of technological innovation was the founding of a complex and sophisticated industry. Innovation whether technical or aesthetic always involves risk, and potters were seldom people of substance with the economic conditions to invest in innovation. The intensive period of experimentation that led to the development of these new technologies could not have occurred without substantial patronage, especially at the outset. The striking technological advances and swift success of the industry have long been attributed to imperial fiat, and the collaborative efforts of “the most ingenious craftsmen” assembled from across the Islamic empire by the Abbasid court. Since the early years of the last century, the location of the industry was presumably to have been in close proximity to the court, in the caliphal capital of Baghdad or at the nearby palace-city of Samarra.

The first application of modern science to the problem of the industry’s provenance nearly two decades ago, confirmed an Iraqi source. More recently, petrographic analysis of these wares by Robert Mason (Royal Ontario Museum) has revealed that they are geologically comparable to wasters and firing supports recovered from a kiln site at Old Basra, in southern Iraq. Further analysis of this material and related pottery from other Middle Eastern and Indian Ocean sites, for my doctoral thesis (Oxford University/Smithsonian...
The redistribution of these remarkable wares from an imperial context to a provincial one has wide-reaching implications for the history of Islamic Art, and raises a number of important questions about the conditions that stimulated innovation in the minor or decorative arts. How is the astonishing rise of the pottery industry to be explained, then, if its major centre was not located in an elite court setting? What combination of material resources, human skills, technical knowledge, and imagination converged in Basra to induce such fertile and creative experimentation?

Although the Abbasid court was clearly influential in creating the taste for Chinese luxury goods, I have argued in my doctoral thesis that the industry should be seen also as a phenomenon of the synergy between artists and markets. Nowhere is this synergy more emphatic than in the wider international context of the industry. The environment of innovation was much more than a provincial sea port on the Gulf, and Basra's merchants and commerce appear to have played an important role in providing the impetus for innovation.

Established initially as a military camp of the early Muslim conquerors, Basra quickly evolved into a permanent urban settlement. Located on the edge of the southern Iraqi desert and the Shatt al-Arab, the town was uniquely positioned to serve as a great commercial entrepot and to develop as an important and diverse manufacturing centre. It reached the height of its prestige in the first half of the ninth century, when the luxury goods of international trade passed through its gates on their way to Baghdad, then the capital of a vast Islamic empire extending from the Indus river west to the Atlantic Ocean. Not only were these foreign materials transshipped and sent farther north to Baghdad and Samarra, they were also processed and worked into portable objects by local craftsmen, and the range of industries in Basra expanded dramatically in the ninth century to include luxury manufacturing, such as gem cutting, rock crystal carving, pearl processing, the gilding of mirrors, and the preparation of pigments. The highest quality crystal was brought from East Africa and India to Basra, where it was worked into plates, cups, chess pieces, dogs for backgammon, and beads the size of hazelnuts. The eleventh-century writer al-Biruni states unequivocally that Basra produced the finest rock crystal objects of the time and the town's products may have included the magnificent bottle in the al-Sabah Collection (figure 4).

To summarize, then, the environment of innovation was not merely a transhipment entrepot for Baghdad, but a centre of intense commercial activity of elite craft manufacturing, and of long-distance trade. An essential ingredient in the technological advances achieved by the pottery industry was ready access to appropriate raw materials, and its rise and success can in part be explained by Basra's physical context and routes of supply. The Shatt al-Arab carried fine alluvium and water to fashion vessels, while the desert shrubs and palm groves to its west and south provided a ready supply of kiln fuel. The metals necessary for the manufacture of the opaque white glaze, the cobalt blue and lustre pigments were imported from afar, from Iran, Arabia and Southeast Asia. Not surprisingly, perhaps, the potters' first paintings reflect the Basan environment, especially its date palm groves, extensive wet marshes, and even the lighthouse at Abbadan (figure 5).

The precise identities of the potters who established the industry are more elusive than the fact of the industry's existence, and few facts are available, unfortunately, upon which to construct a picture of the human dimension. The scientific evidence appears to point to collaboration, or at the very least some sort of communication, between the potters working at Basra and their counterparts in Northern China. A study of the forms of models used to make the Iraqi bowls reveals that the Basran potters had considerable knowledge of, and actually adapted in the early ninth century, some of the shaping techniques used in Chinese workshops.

The physical properties of the clays of Iraq and China had considerable impact on the technology that evolved to provide local resources to their best advantage. The high plasticity of Iraqi clays meant that forming by hand, and on the wheel, were the dominant methods of pottery manufacture in Pre-Islamic times. By contrast, the aplasticity of the Chinese clays gave rise to the development of a variety of shaping techniques. The wheel was used but the potters' hands were frequently aided by moulds, templates, and cutting tools. Convex moulds, or drape moulds, were used widely for mass-production of ceramics to ensure standardization of size and uniformity of shape and decoration.

The standard method involved throwing a bowl of approximate dimensions and then inverting it over a convex mould, which gave the interior surface its shape and supported the vessel so that the exterior could be trimmed to size. X-ray imaging (xeroradiography) of a number of Iraqi vessels in the Freer Gallery of Art (Washington, DC) reveals precisely the same features: a) diagonal particle orientation indicative of throwing; b) evidence of moulding on the interior; and c) a series of horizontal trimming lines on the exterior.

The extraordinary technical parallels observed between the Iraqi bowls and contemporary Chinese imports indicate that the Basran potters made very careful observation of the wares they were imitating, and must have had first- or second-hand knowledge of Chinese techniques. Considering the entrepreneurial environment of the town, and its extent in general, as well as the spirit of the time, it is plausible that enterprising merchants involved in the transoceanic trade were responsible for transmitting Chinese manufacturing practices, either by bringing Chinese potters to Basra, or more likely, by describing what they observed in Chinese workshops. Basran merchants were actively involved in the long-distance trade, and a considerable number of them were established in Canton. We also know that Muslim merchants were in contact with Chinese pottery workshops at Changsha, as a number of vessels have appeared in excavations recently with Arabic words painted (or incised) beneath the glaze. The presence of Arabic writing on Chinese manufactured goods signals a significant shift in the mechanics of exchange in the early ninth century, from infra-free tribute missions and the hand-to-hand trade of previous centuries, to direct contact and exchange of artistic ideas between foreign clients and local craftsmen.

The recent excavation in Indonesian waters of a ninth-century Arab shipwreck on its return journey to the Middle East laden with Asian cargo including Chinese ceramics is of considerable interest in this respect. Among the finds from the Belltung shipwreck (Seabed Exploration Ltd.) are three extraordinary ceramic vessels painted in cobalt blue (figure 6). Twenty shards of related Tang wares have also been found at the port of Yangzhou. These are the earliest known Chinese blue-and-white wares to come to light. Their painted designs include traditional Chinese floral motifs, as well as geometric designs regarded by Western scholars to be of West Asian origin. Islamic influence is apparent in the strong brush strokes used to delineate the space geometrically, or in a fashion suggestive of pseudo-Arabic calligraphy, as well as in the radial placement of simple rosettes and floral motifs reminiscent of the marsh vegetation seen in the Iraqi blue-and-white wares.

The Northern Chinese potters must have been aware of Middle Eastern taste for blue-decorated ceramics, and many of their versions specifically for export. These wares have been found in China so far only at the port of Yangzhou implying that they were made especially for seaborne export and not for the local Chinese market. Moreover, in their original intact form the Chinese bowls are identical to the ones the Abbasid potters attempted to copy in the first place, and both the body and glaze have been shown to be of similar composition to the white wares produced at Gong Xian.

The presence and clarity of these influences on Northern Chinese ceramic production suggest that certain Islamic wares – with no apparent Chinese market in mind – arrived on the scene to serve as samples or prototypes for export production. No fragments of Iraqi blue-and-white wares have been
identified as yet on Chinese sites, but they have been found as far east as southern Thailand.

Further evidence for direct transmission of technical knowledge between Iraq and Northern China comes from recent technical analysis of the shards from Yangzhou. Chemical analysis of the cobalt blue pigment used in the painting identified a low presence of manganese which could reflect a Middle Eastern source, possibly from the Hijaz or Oman. Thus it would appear that the communicant of the concept of blue-and-white, and possibly even the cobalt pigment itself, not only made a long transoceanic voyage from Iraq across the Indian Ocean, but a long inland journey up the Yangtze river into the heart of China.

All of these influences and exchanges of materials and techniques would appear to point to the existence of intermediaries, most probably Muslim merchants, responsible for commissioning or instructing Chinese and Iraqi pottery production, and provide the most emphatic evidence of international trade as a conduit of innovation. Whether these same seaborne merchants played a direct role in initiating the rise of the Basran pottery industry cannot be determined from the evidence at hand. Certainly, the early Chinese blue-and-white wares found at Baeling and Yangzhou do provide strong support for a mercantile interest in ceramics. This interest was not of a superficial nature and extended beyond securing export wares corresponding with Middle Eastern taste to acquiring knowledge of the materials and decorative techniques used in the Iraqi wares. This mercantile interest might also explain how the capital investment necessary for innovation was locally available in Basra, how Chinese fabrication methods were transferred to Iraq, and how the Basran wares decorated in lustre and cobalt blue came to be so widely distributed from the South China Seas to the Atlantic.

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**Piri Reis’s Kitab-i Bahriye**

Lecture By: B.J. Slot  
Presented in English  
18 April 2005

The Ottoman naval commander Piri Reis’s Kitab-i Bahriye (Book of the Sea) is a large collection of maps of island and harbours in the Mediterranean with a description of each. There exist several manuscript versions of this early 16th century nautical manual. The most famous is the manuscript in the Ayia Sofia Library in Istanbul that has been published in facsimile three times. There is, however, also a most interesting manuscript in the collection of the Dar al-Athar al-Islamiyyah (figure 1). Many scholars have written about this book. In this lecture the focus will be on a slightly different viewpoint: its value as a historical source.

A historian deals with a source in two ways: first he looks how his source is connected with other material, and second then he tries to extract information from it. Piri’s book is very large and a critical approach to its source value would take hundreds of pages. In this lecture the focus will be on the text and the maps of a particular region.

Piri’s work (figure 2) stands out because very little has survived of old Islamic nautical cartography; his Book of the Sea is the only major collection of nautical charts that has come to us. The first thing that strikes the eye in the Book of the Sea is a similarity with a number of Western works called Isolario or Insulaire: island books containing collections of small maps of Mediterranean islands each with explanatory text. To understand the value of Piri’s work, it should be placed in the context of these isolari.

In 1416 an Italian priest, Cristoforo Buondelmonti, wrote Liber Insulanum Aegei Maris, the book of the islands of the Aegean Sea. It consists of full page maps of individual islands, with one or more pages of description for each island. At that time, before the invention of printing, this book was a success. There are quite a number of old manuscript copies around, often in different versions. The book was known in the Ottoman Empire, a Greek translation was in the Sultan’s library. Buondelmonti’s book was limited to the Greek islands (figure 3); although (in contradiction to its title) it included some islands that are not in the Aegean Sea, but in the Ionian Sea. The popularity of the islands

Dr. B.J. Slot is a Dutch historian and archivist specialized in European archives of the early modern period concerning relations with the Ottoman Empire and Asia. He has published several books and many articles on the history of the Gulf States, as well as on the history of early European shipping on international trade in the early modern period and on archival science.

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The journal *Hadeeth ad-Dar* of Dar al-Athar al-Islamiyyah (DAI) is intended to share the wealth and beauty of Islamic culture contained within the extensive and comprehensive al-Sabah Collection of Islamic art and the variety of scholarly and artistic activities associated with the collection.

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Dr. Yehiya Bin Jenaid

In Volume 24 we ran the wrong photo of Dr. Bin Jenaid. Here is his picture and we apologise for any inconvenience created by the error.
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