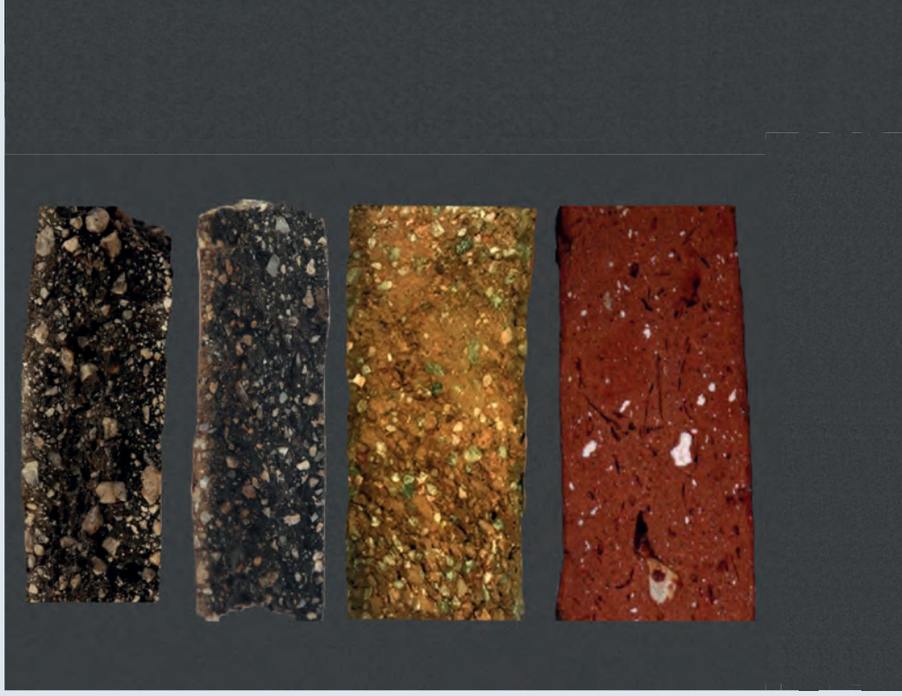
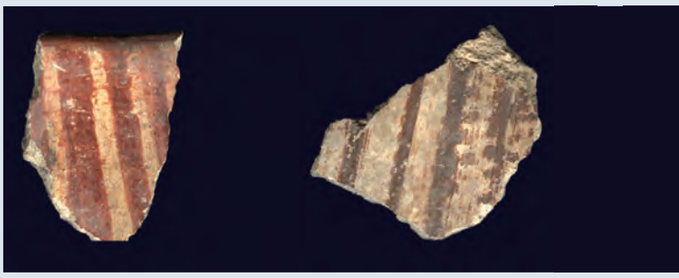


THE EMERGENCE OF POTTERY

in West Asia



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Front cover images:
***Top row**: (Left) Kerkh Ware, Tell el-Kerkh 2; (Right) Pottery sections showing inclusions in early Mesopotamian ceramics (from left Akarçay Tepe, Akarçay Tepe, Tell Seker al-Aheimar, Tappeh Sang-e Chakhmaq).*
***Middle row**: (Left) light coloured pottery with black mottles, Salat Camii Yanı; (Right) red-on-buff painted pottery, Tappeh Sang-e Chakhmaq.*
***Bottom row:** Examples of complete pottery vessels from the Proto-Hassuna phase from Tell Seker al-Aheimar (Left) unpainted pot, (Middle) large storage vessel in situ. (Right) decorated ceramics from the Initial Pottery Neolithic levels, Tell Sabi Abyad.*
Back cover image: red-on-buff painted pottery, Tappeh Sang-e Chakhmaq.

Contents

Preface

This book is a monograph which follows the international symposium on 'The emergence of pottery in West Asia: the search for the origin of pyrotechnology', which was held at the University of Tsukuba, Japan, on 29 and 30 October, 2009. This symposium was the first serious meeting to discuss the Neolithic pottery of this region by pottery experts. A corresponding symposium was held for the Japanese public by the same participants at the Ancient Orient Museum in Tokyo on November 1, 2009.

Since the late 1990s, the typology and stratigraphy of the 'earliest pottery' had increasingly been reported from Neolithic sites in West Asia. Most of the pottery was discovered in cultural layers just above the pre-pottery layers, and looked to be from the oldest ceramic industry in West Asia. Therefore, based on the increasing quantity of new evidence, it seemed a good time to hold a discussion about the emergence of pottery in West Asia and to produce a new synthesis.

It was decided to contact colleagues who had been engaged in the excavation and study of pottery at these sites. As several sites were under excavation by Japanese colleagues, Tsukuba was an obvious location for a symposium. One of the editors of this volume (A.T.) applied for an international meeting grant from the Japan Society for the Promotion of Science, and this application was accepted. As the symposium would be held in Japan, which has produced some of the earliest pottery in the world, we thought a comparative study of the emergence of pottery in the two regions (West Asia and Japan) would contribute to further understanding of why pottery appeared and developed differently in West Asia. This was the reason why we invited Prof. Yasuhiro Taniguchi, one of the leading scholars of the Jomon culture and pottery of Japan.

We were grateful for the efforts of all the scholars and students who attended the symposium and who gave presentations and offered suggestions on the earliest pottery. The grant from the Japan Society for Promotion of Science which facilitated this symposium was greatly appreciated. Bronwen Campbell was of great help in copy editing the contributions and Hannah Plug provided valuable proof reading assistance.

As we discuss in the main text, there are many reasons why we must investigate the emergence of pottery in West Asia. The region has a long history of ceramic production and appears to be one of the places in which the origins of pottery can be identified. We can also look to ceramic production as the root of many other critical technologies that also emerged in the region, such as metallurgy and glass-working. In the development of pyrotechnology, the invention of pottery in West Asia was an epoch-making event in human history. It signifies the beginning of genuine pyrotechnology.

At the symposium, each participant introduced the earliest pottery from their respective sites. Some scholars showed not only slides of the 'earliest pottery' but also displayed artefacts themselves. We exchanged information on attributes of this 'earliest pottery', such as form, size, color, firing, paste, temper, decoration and surface treatment. We believe that sharing these attributes openly contributes to further understanding of the emergence and usage of the first pottery in West Asia.

The following themes were discussed: 1) date of appearance, 2) attributes, 3) function and 4) social innovation. To a certain extent, a consensus was reached for the emergence of pottery in West Asia, as you will see in the main text, although many new questions were also raised.

There were plans to publish the results immediately after the symposium. However, due to the negligence of the editors, several years have passed. We must sincerely apologize to the participants who have waited a long time since contributing their papers. If some papers lack the very latest knowledge and bibliography, it is the editors' fault. However, recent tragic conflicts in Syria and Iraq have prevented new archaeological investigations and the 'earliest' pottery mentioned in this book remains still the 'earliest' in almost all cases. Therefore, we believe that this book contributes to the study of early pottery in West Asia.

Finally, we must mention the reason for the use of the term 'West Asia' instead of the 'Near East' in the symposium and in this book, to describe the regions where we have been engaged in research. This is partly because of the location of the symposium and partly because of the academic stance of one of the editors (A.T.). There is a hint of Eurocentrism in the term 'the Near East', and West Asia is not the Near East but the Near West (or maybe even the Far East) from the perspective of Japan, the locale of this symposium. Therefore, in this book and in the symposium, we use the geographical term, West Asia.

Akira Tsuneki
Olivier Nieuwenhuyse
Stuart Campbell

Chapter 1

The Significance of Research on the Emergence of Pottery in West Asia

Akira Tsuneki

Introduction

The invention of pottery signifies the beginning of genuine pyrotechnology, the most important technological innovation in human history and one that formed the basis of modern industrial technology (e.g. Childe 1951: 76). Without understanding the origins of pottery, we cannot have a clear picture of other technological innovations, such as the metallurgy of copper, bronze, iron and nonferrous metal, or glass working and fine ceramic production. It is clear that these technological innovations went hand in hand with social advancement. Therefore, to provide a complete sketch of human history, we need to consider pottery's emergence as an initial technological advance.

This important series of technological innovations did not occur everywhere that pottery appeared. The emergence of pottery in West Asia lagged a few millennia behind East Asia (e.g. Aikens 1995; Taniguchi in this volume) and other regions, such as the south Sahara and Nile Valley (e.g. Close 1995; Jess 2003). However, once pottery was invented, the creation of pottery kilns followed within a few centuries in West Asia (e.g. Merpert and Munchaev 1973, 1993a; Tsuneki 2004: 213–221). Subsequently, many cutting edge technologies such as metallurgy and glass-working followed one after another. Technological progress after the emergence of pottery in West Asia was striking. If we compare this process in East Asia and other regions, where pottery appeared much earlier but pyrotechnology developed less rapidly, the differences in speed and substance become more apparent.

Therefore, studying the emergence of pottery in West Asia does not merely focus on the origins of pottery production in this region. Instead, it focuses on the origin of pyrotechnology that formed the technological foundations for all human civilizations until today.

Researching the origins of pottery in West Asia

The long pre- and proto-history of pottery production in West Asia is a key point when we consider the emergence of this technology in that region. Archaeologists have focused on various aspects of the emergence of pottery in West Asia. Some scholars have discussed its similarities to other technologies. For example, Amiran (1965) considered the similar processes used in making both bread and pottery, asserting that the technological development of bread-making accelerated the establishment of pottery-making. Vandiver (1987) pointed out that the technological development of clay architecture together with firing techniques produced the first pottery.

It is true that kneading, shaping, and baking processes are common between bread- and pottery-making and clay was an indispensable material for making ovens to bake bread. Clay has always been the primary raw material for making pottery and its usage as an architectural material in West Asia has been a tradition since the Epi-Paleolithic. Sedentary lifestyles accelerated the use of clay for the exterior, interior and furnishing of buildings.

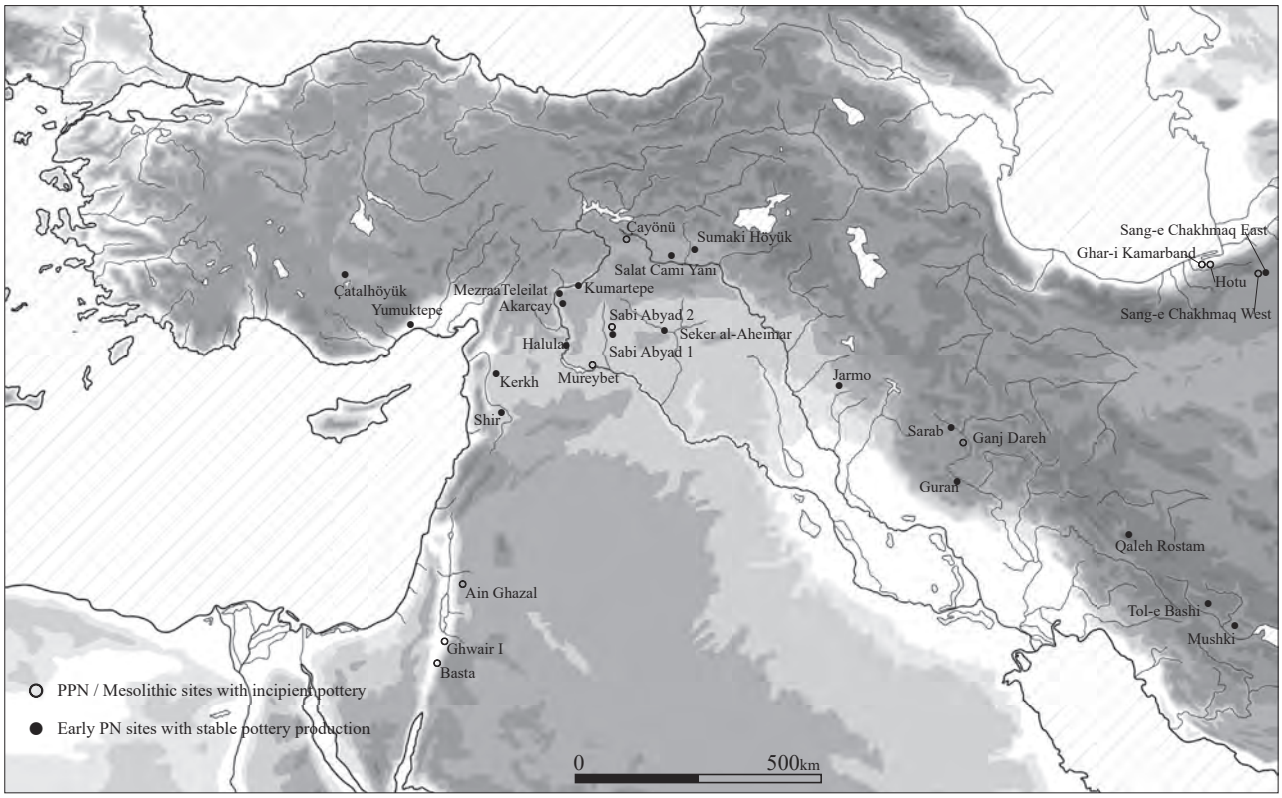

Fig. 1.1 Distribution of PPN Sites with incipient pottery and Early PN sites with sustained pottery production.

Clay usage increased and spread quickly during the Natufian and Pre-Pottery Neolithic in West Asia in conjunction with the establishment and expansion of sedentary life.

In the Pre-Pottery Neolithic, clay was not only limited to architectural uses like pisé, sun-dried mud bricks and mud plaster, but it was also used for making figurines, tokens, beads, spindle whorls and vessels. Schmandt-Besserat (1974; 1977a, b) summarized a history of clay usage before pottery. Some of these small objects were clearly burnt by firing. Therefore, a few thousand years before the starting of Pottery Neolithic, the people of West Asia knew that 'the clay becomes hard when it is burnt'.

Some archaeologists would like to find candidates for the prototype for pottery in order to understand the emergence of pottery. Before the Pottery Neolithic, vessels made from stone, wood, skin and basketry had been used in West Asia. For example, Mortensen (1992) would like to identify traces of basketry in the painted pottery patterns in Iran. Childe (1951: 89) suggested that pottery might have originated from the accidental burning of a basket plastered with clay. Actually, bitumen-coated basket fragments were discovered in many Pre-Pottery Neolithic sites, suggesting that basketry is a candidate for the prototype for pottery.

However, the most noticeable vessels connected with the beginning of pottery were made from plaster, so-called white ware (vaisselles blanche). These appeared before the end of the Pre-Pottery Neolithic B (PPNB). Plasticity of the materials and the unique firing process employed are common attributes to both white ware and pottery production. Miyake (1996) suggested that the emergence of pottery was closely connected with the development of white ware. He stated that there were originally two types of white ware. In the Levant, it was made of limestone and shapes mainly consisted of plain and pedestal bowls. However, white ware from the Jazirah and north Mesopotamia was made of gypsum. This gypsum white ware mainly consisted of deep bowls, which were modelled using baskets. Miyake asserted that these two different types of white ware correspond with different types of the

earliest pottery in the Levant and north Mesopotamia (ibid). Although his idea is provocative, the size, forms and other attributes of white ware differ from the earliest pottery in these regions.

Therefore, even the most probable prototype candidate, white ware, does not seem to be the direct precursor of genuine pottery. Even if we can identify a pottery prototype, these evolutionary approaches can merely explain some of the necessary conditions for the appearance of pottery. However, they do not help us understand why and how pottery appeared. Moreover, the first pottery in West Asia appeared simultaneously with or earlier than the above mentioned prototype candidates. Instead of searching for these candidates, we must evaluate the early pottery itself.

When did pottery appear in West Asia?

There are many debates about the earliest pottery in West Asia. As will be mentioned below, some consensus has been reached that practical and stable pottery production started at the beginning of the Pottery Neolithic, around 7000 cal. BC in West Asia (e.g. Aurenche et al. 2001; Le Mière and Picon 1999; Campbell, this volume). However, it is also true that 'pottery' has been reported from many Pre-Pottery Neolithic sites.

One of these types of 'pottery' from the Pre-Pottery Neolithic involves miniature clay vessels. For example, the sites of Mureybet IIIA (Cauvin 1974: Fig. 1; Le Mière and Picon 1999: Fig. 3), Jericho (Kenyon and Holland 1983: Fig. 367-1), Beidha VI (Kirkbride 1966: Fig. 4-4), and Ganj Dareh D (Smith and Crepeau 1983) produced such items. All of these artifacts, except those at Jericho, were discovered in the context of burnt layers, and we cannot confirm if they were originally unbaked or intentionally burnt clay vessels. The example from Jericho might be a small unbaked clay vessel. Even if they were genuinely fired, these vessels could not be used for practical purposes because their sizes and volumes are quite limited. The vessel shapes differ and we cannot discern any standard varieties. Therefore, we conclude that these types of pottery played no clear roles in Pre-Pottery Neolithic societies, even if they had some symbolic meaning. In summary, they should not be called genuine pottery.

Another 'pottery' type in Pre-Pottery Neolithic societies consists of large clay vessels, sometimes called bins. These were large built-in clay vessels with a lot of chaff temper. Many Pre-Pottery Neolithic buildings contained clay bins, which must have been popular facilities, especially during the PPNB. For example, we can mention a large clay vessel at Ain Ghazal (Rollefson et al. 1992: Fig. 13); a dug-out earthen basin lined with a coat of marl or lime-rich earth (Garstang and Garstang 1940: 54) and large clay basins sunken into floors at Jericho (Kenyon 1957, 1960); a large clay vessel at Basta (Nissen et al. 1987: 109); and many clay bins and large vessels at Ganj Dareh level D (Smith 1972, 1975, 1990). The report on Tell el-Kerkh (Odaka, this volume) introduces one such clay bin discovered in the late PPNB layer. According to their attributes (size, thickness, shape and depth), these large clay vessels/bins must have been used mainly as storage containers. Most of them were discovered in the context of burnt layers, but we cannot confirm whether or not they had been intentionally burnt. A series of Tell el-Kerkh clay bins were also discovered in the context of a burnt house. When we compared them with the early genuine pottery of Tell el-Kerkh in the following Pottery Neolithic layers, all attributes such as size, form, wall thickness, paste, surface treatment and probable function are completely different. They had been unbaked and would not hold water. Therefore, we may not call them 'pottery' either.

Besides miniature and large clay vessels, we have some other evidence of 'pottery' from Pre-Pottery Neolithic sites. Based on attributes such as size, form, wall thickness, paste and surface treatment, these items can undoubtedly be called genuine 'pottery.' Several examples exist, including: crude pottery fragments from the Middle PPNB at Ain Ghazal (Rollefson and Simmons 1985: 44, Rollefson et al. 1992: 459); fibre and coarse grit tempered potsherds from the PPNB at Basta (Nissen et al. 1987: 109); a few dozen thick, crude, and friable potsherds from phase III (Middle PPNB) at Ghwair I (Simmons and Najjar 2006: 89); a few mineral tempered sherds from level 2 of Sabi Abyad II (Nieuwenhuyse, this volume); a very limited number of potsherds from final PPNB layers at Halula and Akarçay (Cruells, this volume); thick potsherds from aceramic occupations at Çayönü (Ozdogan and Ozdogan 1993: 95); a single

sherd with incisions from level E and chaff-tempered potsherds from level D of Ganj Dareh (Smith 1974: 207; 1978: 539; Bernbeck, this volume); lightly-fired, chaff-tempered, soft-ware potsherds from the Mesolithic and/or aceramic Neolithic levels at the Gar-i Kamarband and Hoto caves (Coon 1951, 1954, 1957; Gregg and Thornton 2012); and red-washed, chaff-tempered potsherds from West Tappeh level III of Tappeh Sang-e Chakhmaq (Tsuneki, this volume). It is clear that these examples were originally fired and could be used as recepticals to carry liquids; in other words, they had all of the attributes of genuine pottery. The only point in dispute is that they were discovered in Pre-pottery Neolithic layers.

Therefore, we can conclude that pottery production in West Asia began as early as the PPNB. We tentatively call these PPNB examples 'incipient pottery.' However, when we compare incipient pottery production with that of the later Pottery Neolithic, the differences in quantity and stability are conspicuous. Most PPNB sites do not produce potsherds. If they do produce them, the number of incipient pot sherds from excavations is very small in number. Most of them were discovered as fragmented pieces. On the other hand, the quantity of pottery from excavations at Pottery Neolithic sites is large and ubiquitous, allowing us to easily reconstruct their shapes. Therefore, it is true that incipient pottery was genuine from the technological viewpoint, but they played no important role as practical items in society. In this regard, the term Pre-Pottery Neolithic is a reasonable one for these societies.

Therefore, we can state that regular, stable pottery production started at the beginning of Pottery Neolithic in West Asia. As Campbell discusses in detail in his chapter (this volume), dates for the beginning of the Pottery Neolithic in each region fluctuate by several hundred years around 7000 cal. BC. Although we estimate that these fluctuations are quite large, we cannot help but consider that Pottery Neolithic societies in each region exchanged their ideas on making pottery.

As this volume makes clear, the attributes of early potteries in the phase of stable pottery production from the Pottery Neolithic are generally common and similar on an inter- and intraregional scale. Therefore, if we can summarize and compare the characteristics and attributes of early, regular pottery in each region, we can better address the questions of how and why this practical, regular pottery appeared in West Asia.

How was early pottery used in West Asia?

Evaluating the emergence of pottery in West Asia requires the reconstruction of its use. The fundamental attributes of incipient pottery are varied and their distributions are sporadic. Moreover, most examples were fragments and, until recently, we knew little about their contexts of discovery. Based on their states, they do not seem to have been practical items in Pre-Pottery Neolithic societies of West Asia. Instead, pottery likely played various but undefined functional roles in this incipient and experimental phase. Therefore, we focus on the function of early pottery in the phase of stable pottery production from the Pottery Neolithic.

Although pottery can be used as non-practical objects for display, ritual or other symbolic purposes, the main function is as a container. The general functions of pottery containers were storage, processing, tableware and transportation of goods.

The use of storage vessels for water, foodstuffs like cereals or other items was a fundamental function of regular pottery. Moore (1995: 47) summarized early pottery uses in West Asia and asserted that the coarse wares may have been used to store foodstuffs such as grains and pulses. Atalay and Hastorf (2006: 310) thought that the earliest pottery at Çatalhöyük was used to store animal fats rather than for presentation or cooking. Such discussion of pottery use has been based on the development of farming and herding societies. However, the appearance of pottery at the beginning of the Pottery Neolithic in West Asia does not correspond well with these functions for two reasons. Firstly, early regular pottery mainly consists of small- to medium-sized elaborated bowls (see papers in this volume). Large coarse pottery jars were scarcely seen at the beginning of the Pottery Neolithic. Another reason involves the existence of large built-in clay vessels/bins in PPNB and early Pottery Neolithic settlements. Storage facilities in houses were mainly provided by large clay or plaster vessels/bins in these periods. Larger pottery jars for storage only appeared among assemblages

in the next phase of the Pottery Neolithic. Therefore, archaeologists today tend to believe that storage was not the main function of regular pottery at the beginning of the Pottery Neolithic.

Food processing might have been a primary function of early regular pottery. Numerous archaeologists discuss the appearance of pottery from this viewpoint (e.g. Matson 1965; Amiran 1965; Moore 1995: 47; Taniguchi, this volume). Food processing technology, especially boiling food in a vessel, provided innovative advantages for human societies. People could consume much wider varieties of food by cooking this way. Archaeologists have looked for evidence of cooking in early pottery vessels. Some scholars have found traces of soot on the sides of pottery (e.g. Moore 1995: 47), but others have argued that there is no proof that early pottery was used for cooking (e.g. Haaland 2007: 176). All attributes of early pottery must be examined carefully for further discussion on this issue.

If the first pottery in the phase of stable pottery production was mainly used for cooking, this raises questions about what types of foods Pottery Neolithic people cooked. Many scholars have tackled this subject, suggesting a variety of things such as "gruels or mush" (Matson 1965: 205), "cereal porridges" (Molleson et al. 1993), "animal fats" (Copley et al. 2005), "fermentation and brewing of wine and beer" (Katz 2003) and "processing of dairy foods" (Gregg 2010). All of these suggestions are fascinating and stimulating, and each hypothesis has been tested using various analyses, including chemical residues. For example, Gregg hypothesized that the invention of pottery by highly mobile pastoralists facilitated the widespread adoption of a new subsistence strategy based on herding sheep and goats throughout West Asia (Gregg 2010:1). He tested this supposition by obtaining direct evidence of the function of early pottery vessels for the collection of milk and the processing of dairy foods. Although he recovered organic residues from this early pottery, he found no conclusive proof to substantiate his hypothesis. He concluded that early pottery in West Asia was used for a variety of purposes, including milk processing, cooking of meats/extraction of marrowfats through boiling, cooking of cereal grains or pulses in a porridge or gruel, and bitumen transportation (ibid: 57–58).

Use as tableware is another possibility, especially considering the size and shapes of early regular pottery. Such usage has been discussed especially in ritual or festival contexts among complex societies. Hayden suggested that the social importance of early pottery was linked to feasting (Hayden 1995: 260–261). Twiss applied this idea to the incipient pottery discovered from southern Levantine PPNB sites and asserted that clay pots might have been attractive to feasters (Twiss 2008: 428–429). According to Banning (2003: 1) early pottery technology in the southern Levant probably involved food distribution, consumption and enjoyment, since most of the earliest pottery consists of cups, bowls, and decorated wares. Although these ideas are appealing, we lack sufficient evidence from southern Levantine PPNB sites to reconstruct such kinds of pottery shapes and, in turn, their functions.

Transportation of goods is another possible function. Although bitumen-coated basket fragments were discovered from a wide range of Pre-Pottery Neolithic contexts in West Asia, very few early potsherds have bitumen adhering to their interior surfaces (Gregg 2010: 8). In fact, very little evidence exists on the use of pottery for transporting bitumen or other materials. When we consider the attributes of early pottery in West Asia, it is difficult to imagine it was invented for transportation of goods.

Toward a consensus on the emergence of pottery in West Asia

In the last two decades, examples of the 'earliest ware' have been discovered one after another from sites located in northern Syria and southeastern and central Anatolia. We can mention sites such as Tell el-Kerkh in the northern Levant; Yumuktepe in Cilicia; Akarçay Tepe, Mezraa-Teleilat, and Tell Halula in the middle Euphrates; Tell Sabi Abyad in the Balikh Valley; Tell Seker-al-Aheimar in the Khabur Valley; Salat Cami Yanı and Sumaki Höyük in the upper Tigris; and Çatalhöyük in central Anatolia (Fig. 1.1). These sites produced pottery that was earlier than the 'earliest pottery' known at the time in each region, such as Dark-faced Burnished Ware (Amuq A pottery) or Coarse Chaff-tempered Light-Colored Ware (Proto-Hassuna pottery). The attributes of earlier pottery differ significantly from

this 'earliest pottery'. Most of earlier ceramics were discovered from stratigraphic layers just above the last phase of the PPNB in each site and can thus be regarded as the earliest practical pottery in each region. They have various names, such as Kerkh Ware (Tsuneki and Miyake 1996), Sandy Ware (Balossi 2004), Série Noire/Black-series (Faura and LeMière 1999) and Pre-Proto-Hassuna Ware (Nishiaki and LeMière 2005).

At the same time, pottery from older excavations, whose attributes are similar to those of newly discovered early ceramics at the beginning of the Pottery Neolithic, have been re-examined. For example, the pottery from Kumar Tepe in the middle Euphrates was re-examined by Le Mière and Picon, among which they identified the "Série Noire" (Le Mière and Picon 2003).

Neolithic sites in the Zagros region have not been fully investigated over the last two decades because of political turmoil. However, old excavations and a few new ones indicate that many important Neolithic sites are yielding incipient and early pottery in this region. Therefore, these ceramics must also be included in any discussion of the emergence of pottery in West Asia.

In order to reach a consensus on the emergence of pottery in West Asia, we must return to the starting point, the early examples of pottery themselves. We must observe their numerous attributes carefully. Are they mineral- or chaff-tempered? Are they plain or decorated? What are their shapes, sizes and colours? Are their surfaces burnished or smoothed? We can then reconsider these attributes for a comparative study and evaluate which ones are common or infrequent among the early ceramics. I believe that such thorough research will provide insight on when, how, and why people began producing pottery as a necessary element of life in West Asia.

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Chapter 2

The Earliest Pottery of West Asia: Questions Concerning Causes and Consequences

Marie Le Mière

Introduction

If the earliest pottery in West Asia is examined in the general context of the beginning of pottery fabrication in the world, the very early pottery found in eastern Asia, China, Japan and eastern Siberia, dating back to 17,000–15,000 BP (Taniguchi, this volume; Jordan and Zvelebil 2009b: 70) must be mentioned. The date of the earliest pottery in West Asia, around 7000 cal. BC (Campbell, this volume) thus raises questions concerning its origin: was this new material developed in West Asia or was it imported from those eastern regions? Although a diffusion through northern Eurasia has been proposed (Jordan and Zvelebil 2009a), no argument has yet been put forth concerning such diffusion through southern Eurasia and in particular West Asia. As to a possible importation of pottery-making technology from the northern Sahara, where the earliest pottery is dated to around 9000 cal. BC (Close 1995: 24), the late appearance and development of pottery in the southern Levant, according to the evidence so far, makes this hypothesis unlikely. Thus an independent development of this technique in West Asia can still be proposed.

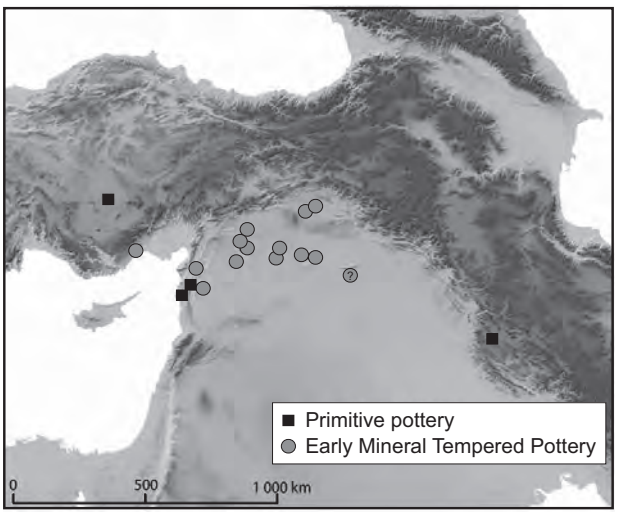

Fig. 2:1 Distribution of the earliest pottery sites in West Asia: a broad, scattered distribution of the so-called 'primitive' pottery sites in comparison to the restricted, dense distribution of the early mineral-tempered pottery sites.

Early pottery in Western Asia

The context of the appearance of pottery in West Asia is very particular. In many regions of the world, pottery was developed by hunter-gatherer societies long before the beginning of agriculture; in others, it was part of the Neolithic package, strongly associated with the beginning of agriculture. In West Asia the emergence of pottery occurred at the end of Neolithisation, in sedentarised communities, more than a millennium after the development of agriculture and much later than animal domestication, when the technology necessary to make pottery had already been long developed, particularly the tempering of clay and firing at high temperatures (Le Mière and Picon 1998: 9–10). Thus there appears to be no direct connection between the appearance of pottery and the Neolithisation process, and none with agriculture.

West Asia covers a very large area and the data concerning the earliest pottery are still quite scarce and not evenly distributed (Fig. 2.1).

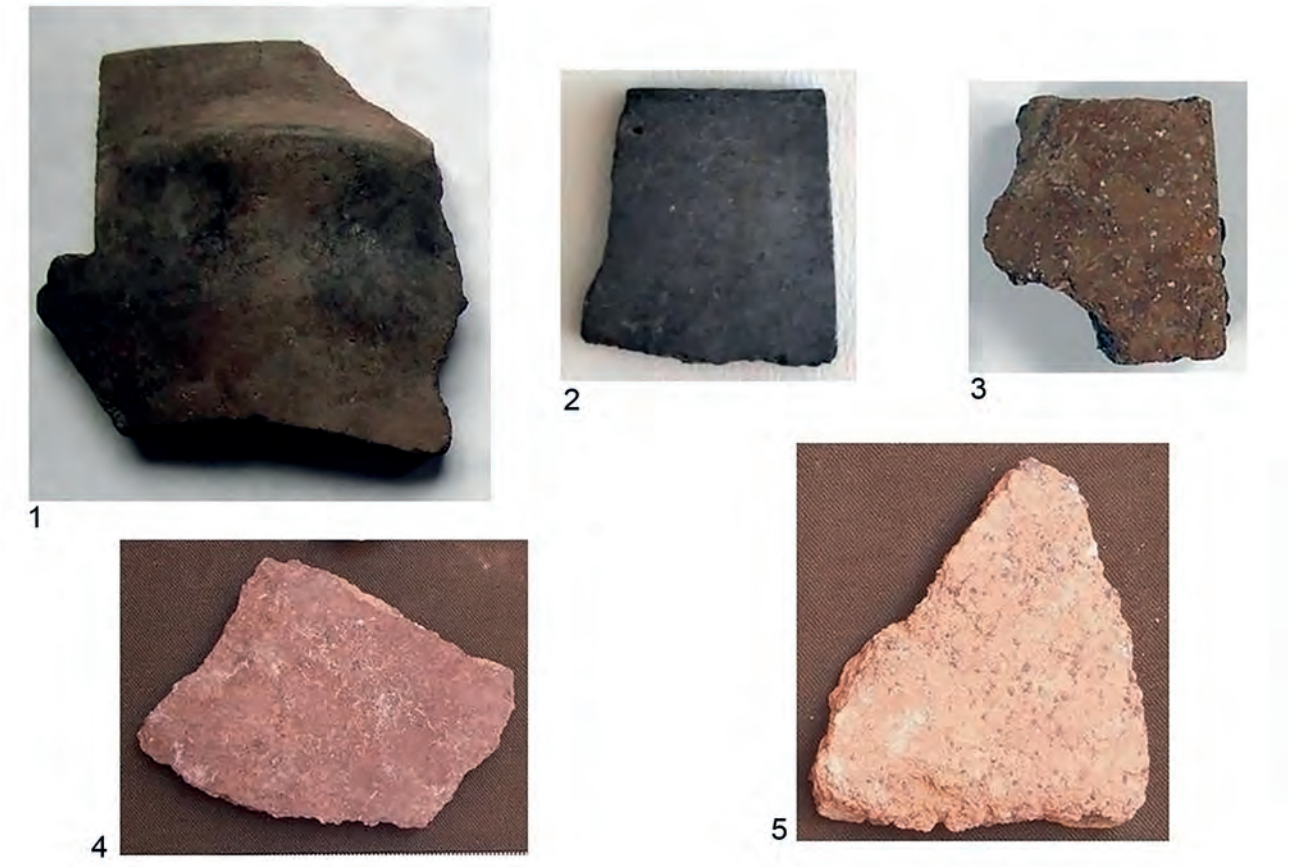

Fig. 2.2 Colours of early mineral-tempered pottery, mainly dark, although some light colours do occur. 1: Tell Damashliyya; 2: Mezraa Teleilat; 3: Akarçay Tepe; 4–5: Tell Seker al-Aheimar.

Fig. 2.3 Burnishing, a characteristic surface treatment of early mineral-tempered pottery. 1 and 3: Kumartepe; 2: Tell Seker al-Aheimar.

A few sites dated to around 7000 cal. BC present a continuous sequence of pre-pottery and pottery levels and have provided pottery which is technologically rather 'primitive' (Le Mière and Picon 1998: 11–12). These sites are widespread in West Asia, from the western Zagros (Tepe Guran) to the northern Levant (Tell el Kerkh and Ras Shamra) to central Anatolia (Çatal Hüyük) (Fig. 2:1). The 'primitive' characteristics of this pottery are diverse: at Tepe Guran (Mortensen 1963) the earliest pottery is described as coarse and coarsely formed, grey-brown or dark grey in colour, possibly due to a low firing; at Çatalhöyük (Mellaart 1964 and 1966), where most of the earliest pottery is plant-tempered and very thick, a group of sherds that are friable and brown in colour also suggest a low firing temperature; at Tell el-Kerkh (Miyake 2003) and Ras Shamra (de Contenson 1992) one of the earliest wares is heavily plant-tempered, which makes it very porous and brittle. These diverse so-called 'primitive' wares, always scarce, were to disappear soon after, which also indicates that they were perhaps not considered to be successful, the elaboration of the technique being still in progress.

At the same time, around 7000 cal. BC, a series of sites presents a continuous sequence of pre-pottery and pottery levels: the earliest pottery at these sites is also very scarce at first although it is not 'primitive', but technically quite elaborated. Its distribution is restricted to the Jezirah and the northern Levant/Cilicia (Fig. 2.1), and although extremely homogeneous has been given a variety of names (Le Mière 2013). Names such as "Black Series" (Faura and Le Mière 1998: 283), "Early Dark Ware" (Nishiaki and Le Mière 2005: 61) and "Early Mineral Ware" (Nieuwenhuyse et al. 2010: 77) suggest some of its characteristics. This pottery is described in detail site by site in the next chapters of this book. We will only present its main characteristics here to introduce the several questions raised.

Properties of the early pottery

As mentioned above, the quantity of pottery found in the earliest levels was sometimes so small that those levels were first considered to be pre-pottery.

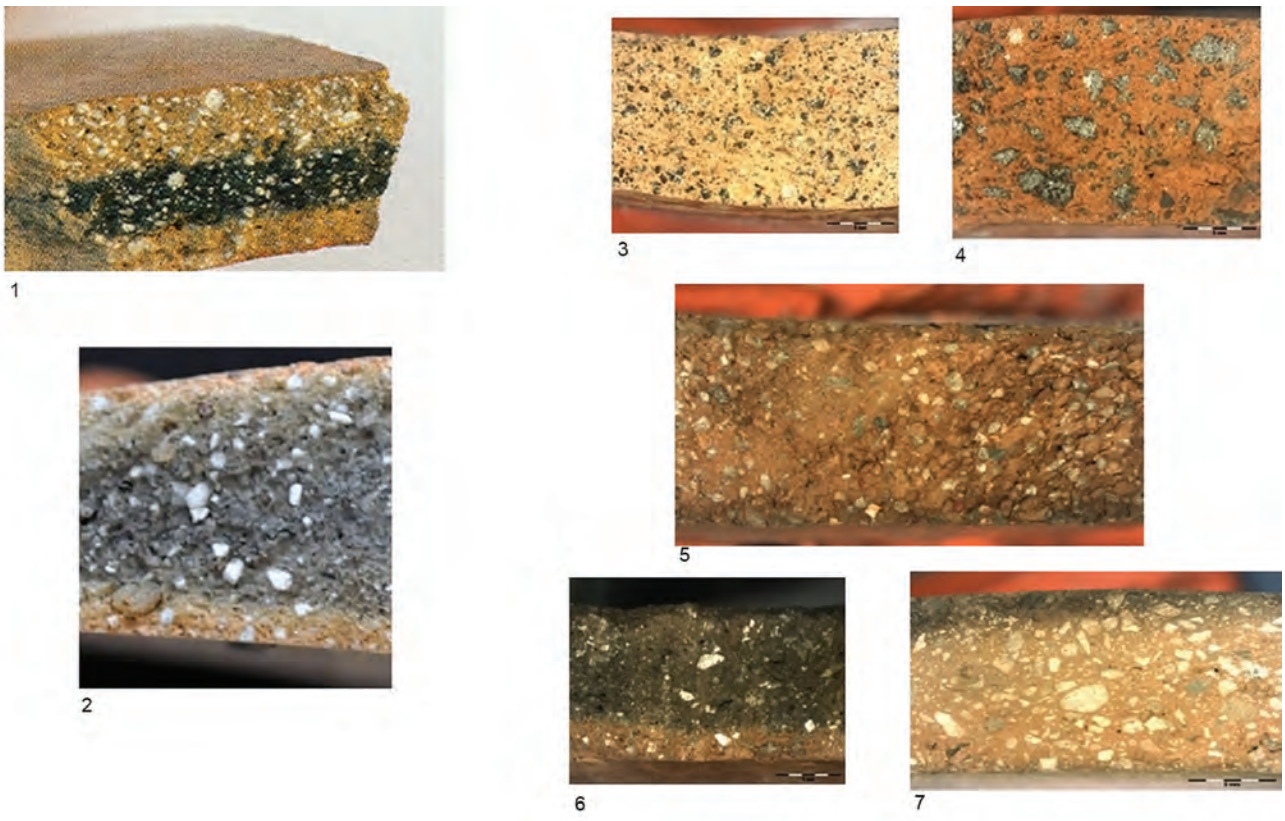

Fig. 2.4 Mineral temper of the early mineral-tempered pottery. Crushed calcite, 1: Akarçay Tepe (after Özbaşaran and Molist 2007), 2: Kumartepe. Volcanic minerals, 3–7: Tell Seker al-Aheimar.

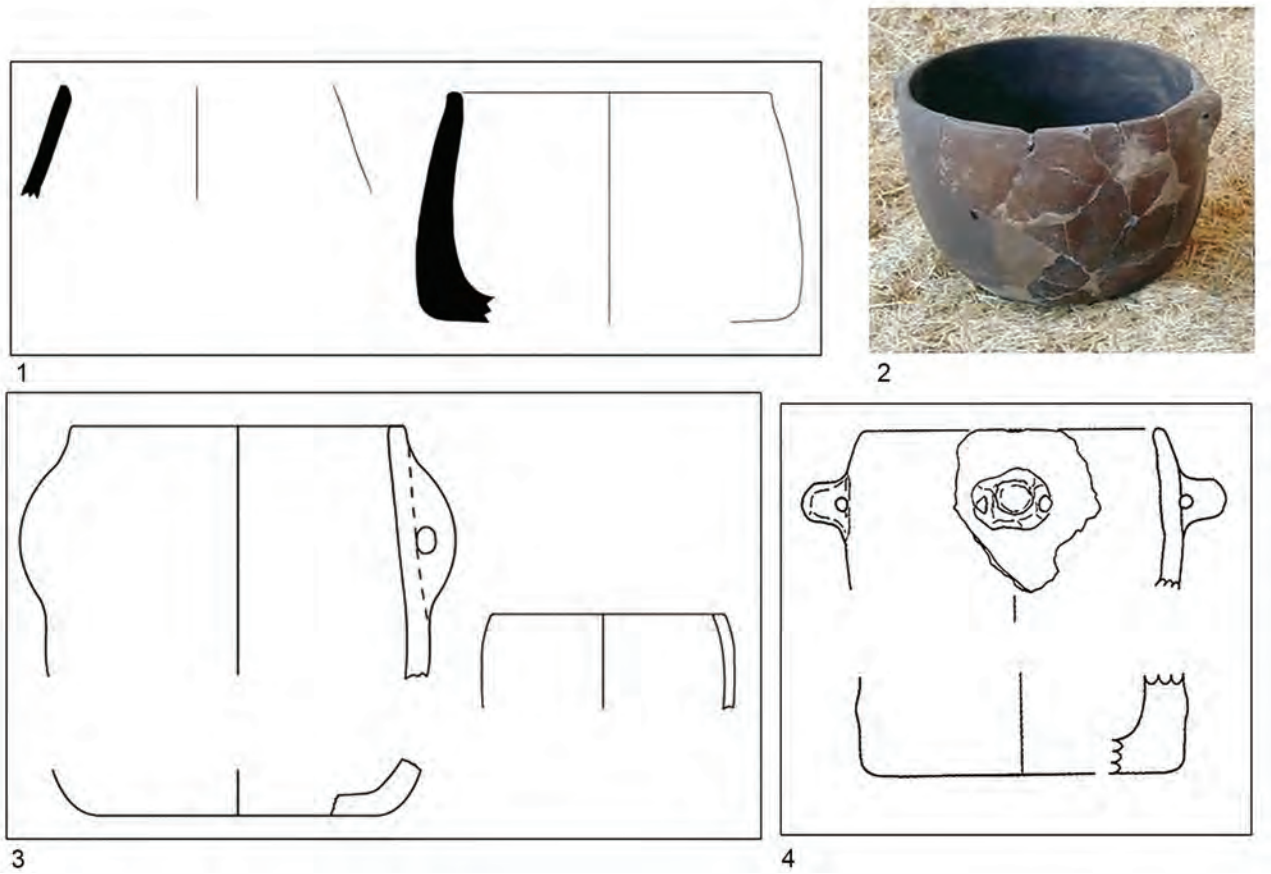

Fig. 2.5 Shapes of early mineral-tempered pottery. 1: Kumartepe; 2: Akarçay Tepe (after Özbaşaran and Molist 2007); 3: Tell Seker al-Aheimar; 4: Salat Camii Yanı (after Miyake 2011: fig. 7).

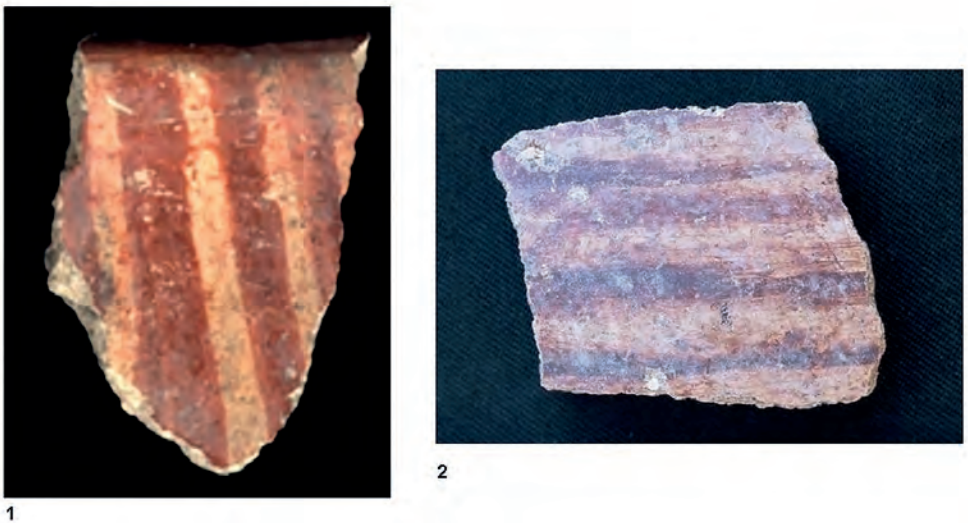

Fig. 2.6 Decoration of early mineral-tempered pottery. 1: Tell Sabi Abyad (after Nieuwenhuyse et al. 2010: fig. 6); 2: Tell Seker al-Aheimar.