

POTS AND HOW THEY ARE MADE IN MAINLAND SOUTHEAST ASIA

Lecture given by Louise Allison Cort and Leedom Lefferts on Tuesday 5 October 2010

Indigenous ceramics in contemporary mainland Southeast Asia encompass both earthenware and stoneware production, a trait that distinguishes the region from other areas of Asia, not to mention the rest of the world. In this region's rural economies, local stoneware and earthenware vessels complement one another in function as they mingle in markets and households, yet chart distinctive trajectories of gender, social organization, and geography (fig. 1). Since 1989 we have conducted research in over two hundred sites where indigenous ceramic technologies are used to produce utilitarian pottery in Thailand, Laos, Cambodia, Vietnam, Malaysia, and Yunnan province, China (fig. 2).¹ This broad regional survey reveals variations in production technology within each type of ceramic, which raise in turn the questions of boundaries for these variations and of the relationships of cultural and technological boundaries to modern political, linguistic, and ethnic borders. A regional perspective on ceramic production illustrates the significant role material culture studies can play in illuminating aspects of the region as a whole.

Ceramics of China and mainland Southeast Asia display distinctive differences. For China, the long history of imperially patronized or sponsored ceramics has created the benchmark against which all Chinese ceramic production is measured. For the historical ceramics of mainland Southeast Asia, traces of trade outside the region have supplied most of the information on the quality and diversity of ceramic production, although the archaeology of shipwrecks and recipient sites, spanning Japan to Egypt, reveals only the varieties of stoneware (and occasionally earthenware) circulated in international trade.² Within mainland Southeast Asia, only fragmentary evidence, either documentary or archaeological, exists for

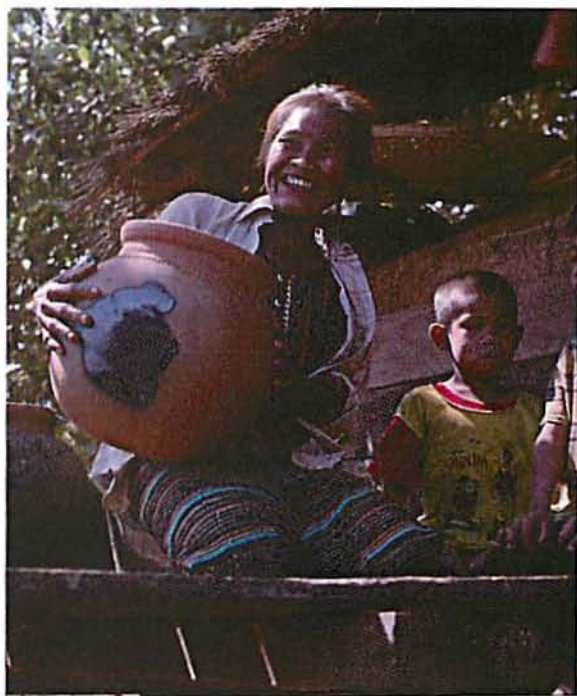


Fig. 1. Earthenware potter Mae Lian, Bungkham Yai village, Salavan province, Laos, 1997.

¹ With the exception of Lefferts 1988, we have not surveyed in Burma, for which we rely on intensive research by our colleague Charlotte Reith (Reith 1997, 1999, 2003). Our surveys of 1993–94, 1994–95, 1995–96, and 1996–97 were carried out in collaboration with the late Narasaki Shōichi, pioneer in the field of historical ceramic archaeology in Japan. See Narasaki Shōichi 1994. In 1996–97 we were joined also by Mori Tatsuya, Aichi Prefectural Ceramic Museum. The 1994–95 and 1996–97 seasons received support from the Nishida Memorial Foundation for Research on the History of East Asian Ceramics. In 2005–7 we were supported by a Smithsonian Institution Scholarly Studies Grant, and we collaborated with Luu Hung and Nguyen Thi Hong Mai of the Vietnam Museum of Ethnology, Hanoi. See Luu Hung 2008.

² Brown 2009; Cort 1993, 1997.

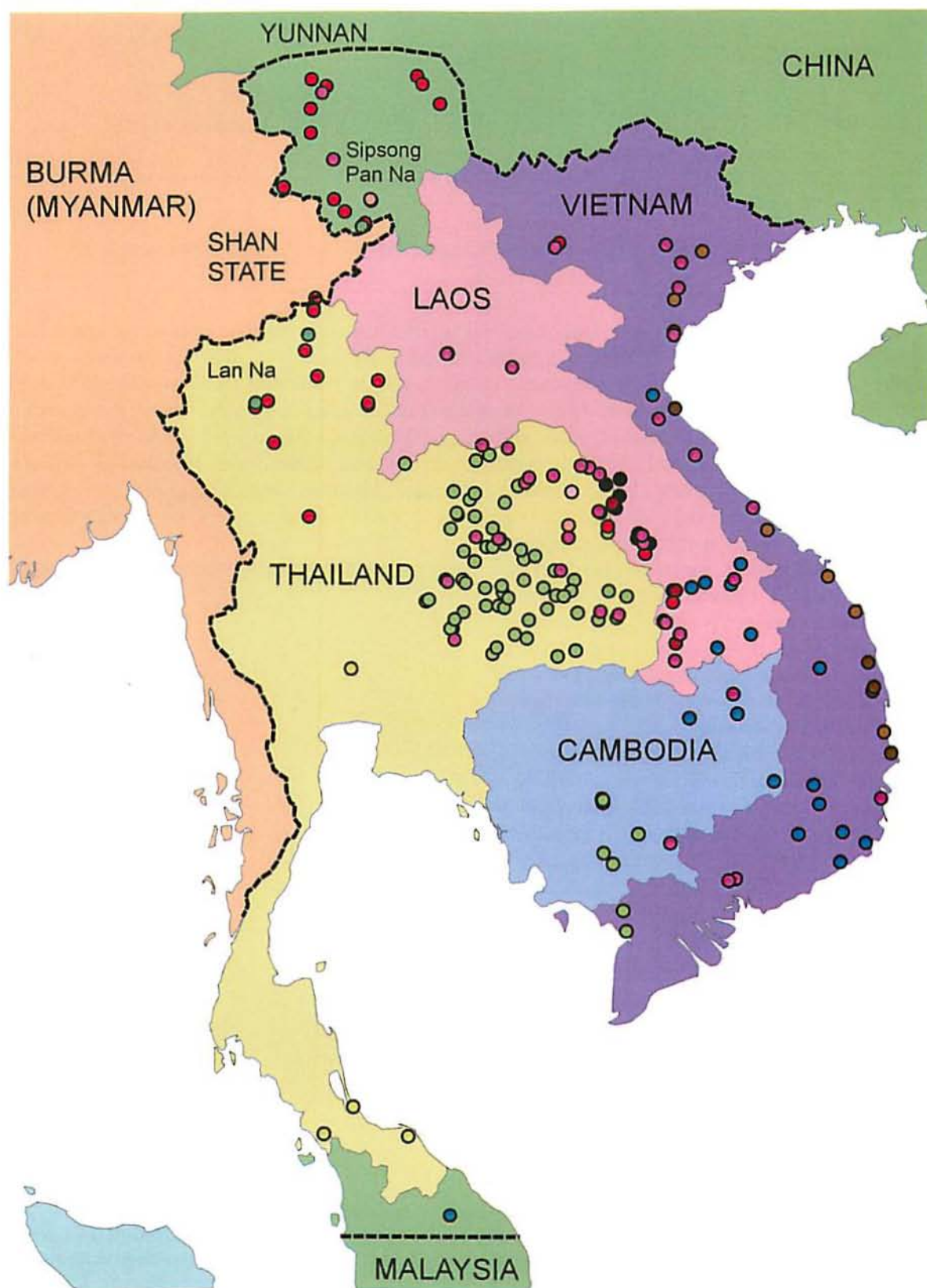


Fig. 2. Mainland Southeast Asia, showing all sites for stoneware and earthenware production

ceramic sponsorship and use by the elite, although archaeology in Vietnam and Cambodia is changing this perspective. Our studies contribute documentation of the use of earthenware for both royal and ritual purposes.³ In contrast to the abundance of texts by Chinese connoisseurs or Japanese tea practitioners, there are virtually no written records of how indigenously-produced ceramics were valued aesthetically. Seemingly, most ceramic production, most of the time, was intended for practical uses—cooking and storage—and for local or regional distribution, as is still the case today.

Our project focuses on what we can see with our own eyes and document by watching potters making pots. We researched in all currently or recently active village-based stoneware and earthenware ceramic production sites in mainland Southeast Asia to discover and characterize the various ways to produce both kinds of pottery. We benefitted from the French concept of *chaînes opératoires*, complete packages of technological processes which are subject to change and evolution over time.⁴ Our documentation uses video recording to capture the unedited production process from start to finish, with the camera running continuously, not selectively. We want to understand the complementary roles of stoneware and earthenware ceramics within the cultures that continue to create demand for them and to know how potters see themselves as craftspeople and how pottery-making fits in to other dimensions of their lives. Occasionally, when the evidence warrants, we edge cautiously into history.⁵ We hope that our record of these technologies will be of use to archaeologists seeking to characterize the technical and social frameworks for past ceramic industries.

Earthenware and stoneware: two halves of the ceramic whole

A walk through a village or visit to a household kitchen almost anywhere in mainland Southeast Asia offers evidence of the complementary use of earthenware and stoneware vessels (as well as replacement by vessels made in other materials, such as aluminum or plastic, or by the introduction of electrical power and running water). This complementarity of function arises from the different material traits of the two types of ceramic—low-temperature and high-temperature, porous and non-porous, fragile and durable—with their different roles in human activities.⁶

Earthenware's usefulness centers on its porosity. An earthenware water jar cools its contents through evaporation of the moisture that seeps through the walls; an earthenware cooking pot set directly over a fire does not shatter from thermal shock.⁷ Additionally, evidence of ritual usage of earthenware is found in Theravada Buddhist funerals and in village and royal ceremonies.⁸

Stoneware's usefulness relates to its density and durability. Fired to near-vitrification in a kiln, a stoneware jar does not allow seepage of moisture from its contents. The stoneware repertoire centers on jars—to catch and store rain water; for storage, whether of rice, textiles, or other precious possessions; and for rice-beer fermentation (fig. 3). In highland areas, beer jars play roles in religious rituals and are heirloom possessions of the household and community.⁹ A jar with concentric double rim, capped with a bowl inverted into the water-filled space between the rims, is used by Tai and Lao populations to ferment fish to make a nutritious and tasty condiment and seasoning sauce.¹⁰

³ Recent research at the Thang Long site in Hanoi suggests a role in elite sponsorship of ceramics by the rulers of Dai Viet in the fifteenth century. Tống Trung Tín and Bùi Minh Trí 2010. For royal and ritual use of earthenware, see Cort & Lefferts 2012, Lefferts & Cort in press.

⁴ Lemmonier 1992.

⁵ Cort 1991, Cort & Lefferts 2000b, Lefferts & Cort 2008b.

⁶ Burke 1970 and Calder 1972 present exhaustive ethno-archaeological statements of the diversity of earthenware and stoneware repertoires and usages in Northeast Thai villages. Unfortunately, this work has not received wide circulation; please contact the authors of this article for copies.

⁷ Kobayashi 2011.

⁸ For funerals see Lefferts 1992, p.87; for village and royal ceremonies see Wang Ningsheng 1989, Cort & Lefferts 2012. This contrasts with the great importance of earthenware in South Asia for use in religious rituals and other contexts where ritual purity is critical. See Cort 1984.

⁹ Cort & Lefferts, in press.

¹⁰ Ruddle and Ishige 2010.



Fig. 3. Stoneware potter Nai Poon with a range of vessels ready to be fired, Natai village, Savannakhet province, Laos, 1991.

However, perhaps the most ubiquitous stoneware pieces today are mortars, employed together with wooden pestles for mashing and grinding food. Other shapes made until recently include a basin for holding water; a bowl for soaking sticky rice before steaming; a jar with perforated shoulder, for keeping small fish alive; and a bottle with broad base and two lugs, for storing and carrying distilled alcohol. A long-necked bottle was used for serving drinking water to guests.

Stoneware: two basic patterns of production

In present-day mainland Southeast Asia, most indigenous stoneware production takes place in two areas—to either side of the Mekong River in Northeast Thailand and Laos, and in Vietnam along the coast.¹¹

In Northeast Thailand and Laos, male stoneware potters work in pairs consisting of a “shaper” and a “spinner.” The pair works on a wooden wheel carved from a solid log. The shaper sits on a low bench and turns the wheel slowly with his right big toe while making a flat clay slab for the base; he builds the walls using clay coils prepared by the spinner. Then the spinner sits opposite the shaper and turns the wheel swiftly by hand, allowing the shaper to use a pair of wooden ribs to consolidate the coil seams and compress the walls.¹² Jars are made in sets of ten, in two or three stages with drying in between, and are usually finished in a single day. Mortars and other smaller shapes are made in one piece.

In Vietnam, stoneware-making communities stretch from north of Hanoi into south-central Vietnam. In this tradition, the potters are usually women and they make even very large jars. Here,

¹¹ We omit consideration of stoneware and porcelain workshops established by immigrant Chinese potters in many locales throughout Southeast Asia. See Ho 1982.

¹² A video summary of this process can be viewed at <http://www.asia.si.edu/exhibitions/current/takingshapevideo/takingshapevideo.htm>.

too, a team of shaper and assistant works together. The large-diameter wheel is set with the working surface just above ground level. Seated alongside the wheel, the shaper forms the jar by piling up rings of clay on a flat slab base and consolidating them by throwing. The assistant sits so that she, using her right foot, can keep the wheel spinning fast for the maker even as she prepares more rings and slabs of clay.

Earthenware: six basic patterns of production

Patterns of earthenware production in mainland Southeast Asia are far more diverse than those of stoneware. The deceptively “universal” round-bottomed earthenware pot conceals a surprising variety of production technologies. The key to these differences is the very first stage of shaping a vessel (the stage often overlooked by ethnographers)—the making of the “preform,”¹³ not shape, texture, decoration, or any other trait of the finished pot (fig. 4). The preform stage involves the potter’s initial transformation of raw damp clay into a preliminary cylindrical shape with the rim finished but with a yet-to-be-completed body.¹⁴ The preform disappears as the pot is finished, so it is critical to witness how the preform is made.¹⁵ We have recorded six basic variations in preform production, which we term A through F. Preform production may be either “transformative,” in which all the clay necessary for making the finished vessel is present from the beginning in the initial mass, or “additive,” in which the potter gradually adds the total quantity of clay required.¹⁶

Type A (fig. 5). Transformative. The potter makes a solid cylinder of clay, opens holes in both ends, and drills through with a bamboo stick or her hands to form a hollow cylinder without a base. She stands the cylinder upright and forms the rim on the upper edge. Then, between intervals of drying, she uses paddle and anvil to close the hole in the base and round out the vessel form.

Type B (fig. 6). Additive. The potter makes a flat disk of clay to serve as the pot base. She builds the walls using coils or rings of clay, making a cylinder, and forms the rim on the upper edge. Subsequently she uses paddle and anvil to round the edges of the flat base and produce a round-bottomed pot.

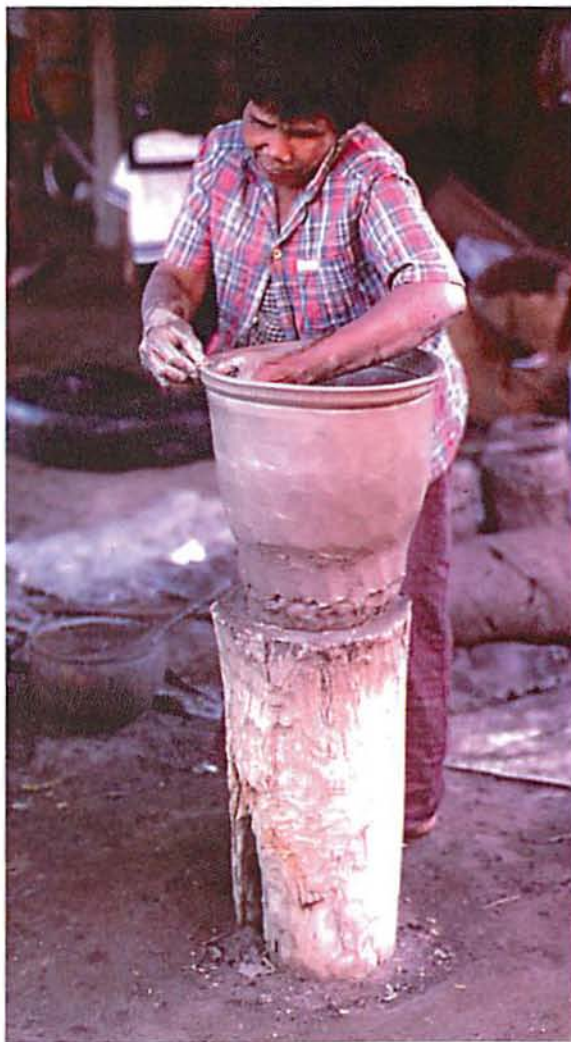


Fig. 4. Earthenware potter Mae Beng makes preform (Type A), Talaat village, Nakhon Ratchasima province, Northeast Thailand, 1995.

¹³ This term is also used in lithic studies.

¹⁴ Cort, Lefferts, & Reith 1997.

¹⁵ The process (as used for Type A production) may be viewed in a short video at <http://www.asia.si.edu/exhibitions/current/takingshapevideo/takingshapevideo.htm>.

¹⁶ The range of processes is discussed more fully in Lefferts & Cort 2003. See also Lefferts & Cort 2000a. Pamela Vandiver (pers. comm.) provided the terms transformative and additive.

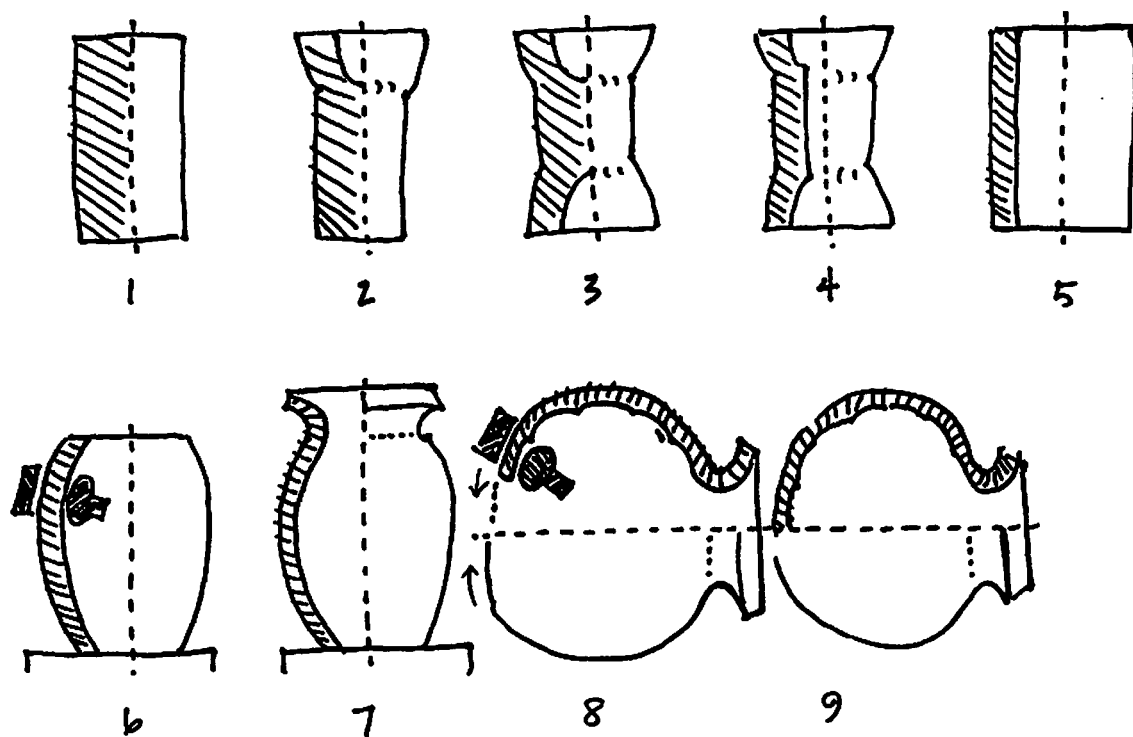


Fig. 5. Type A Process.

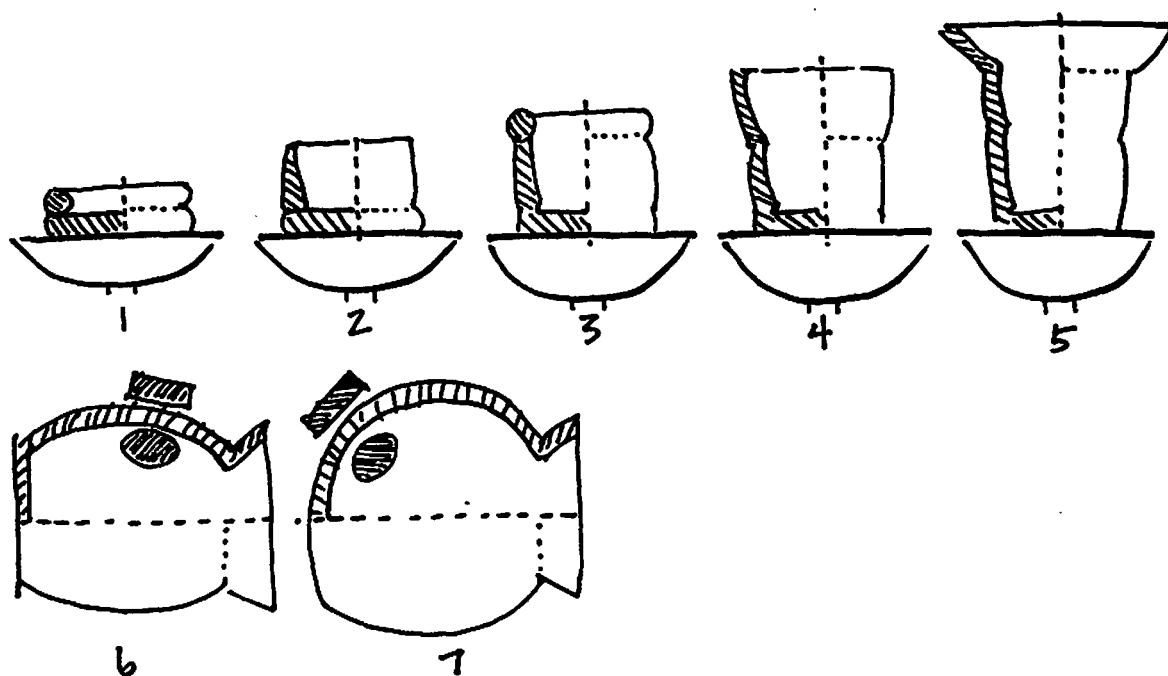


Fig. 6. Type B Process.

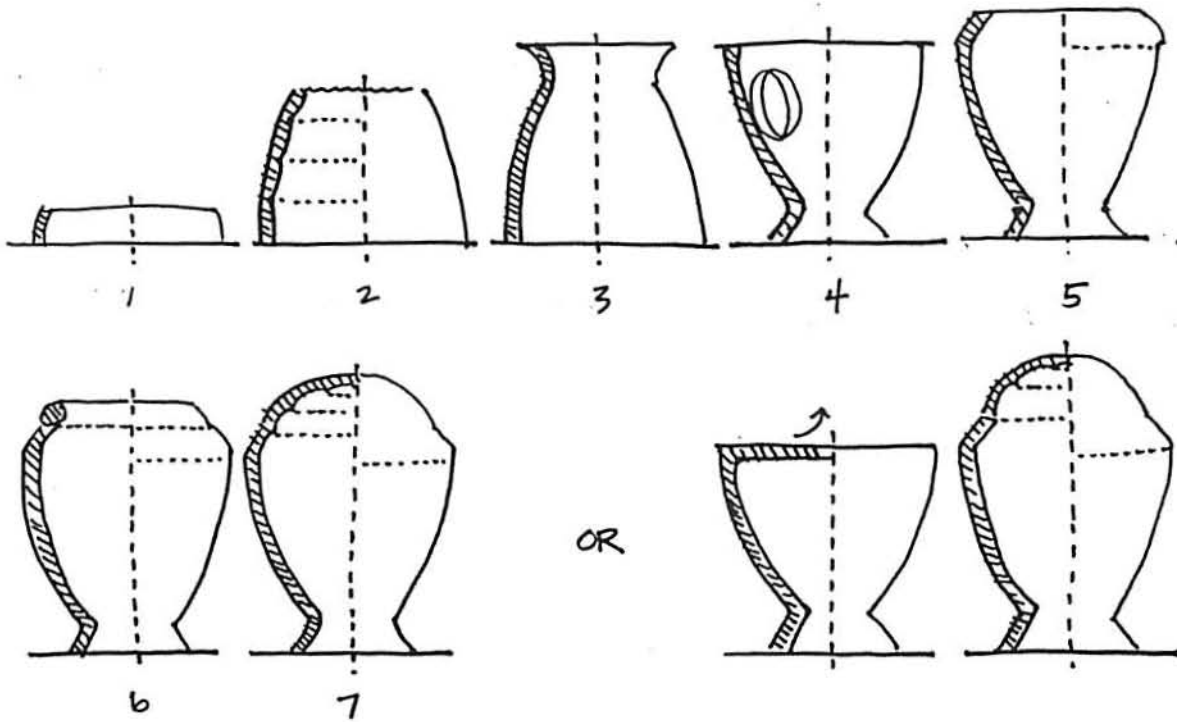


Fig. 7. Type C Process.

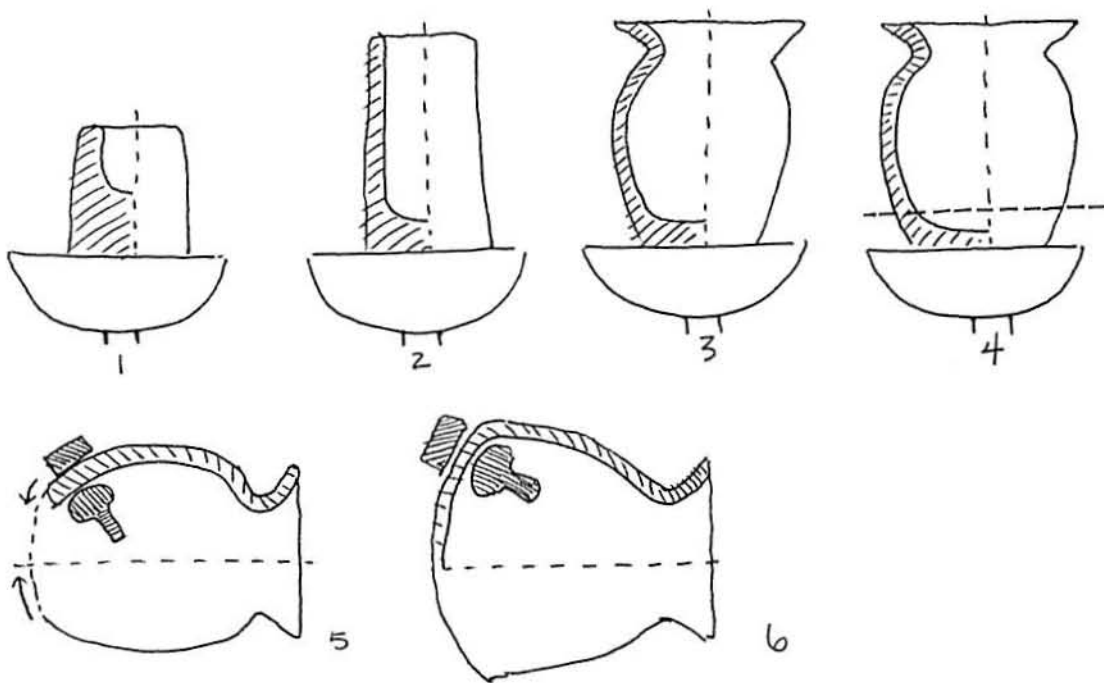


Fig. 8. Type D Process.

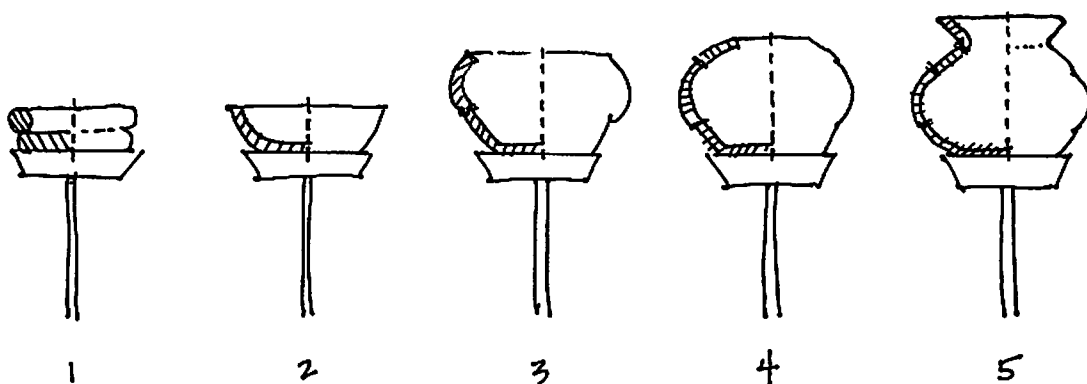


Fig. 9. Type E Process.

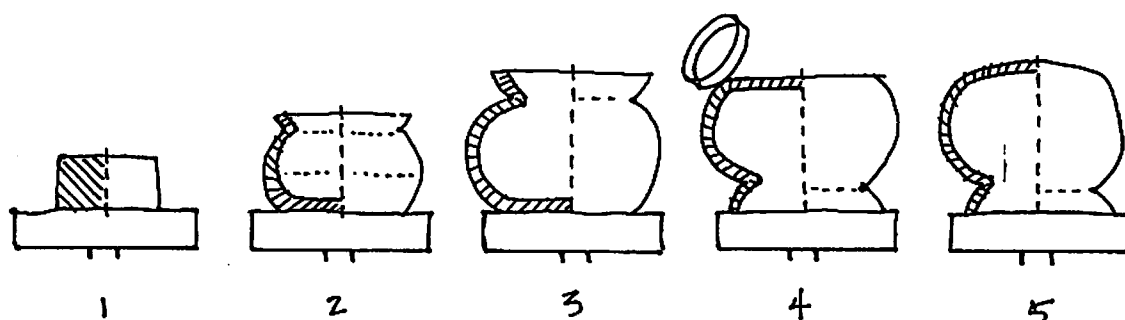


Fig. 10. Type F Process.

Type C (fig. 7). Additive. Starting at the midpoint of the vessel, the potter builds the conical upper half of the pot using coils and forms the rim on the upper edge. She then inverts the form onto its rim and uses coils to build the hemispherical lower half, finishing by closing the hole in the rounded base. She uses a ring-shaped scraper, not paddle and anvil, to thin and smooth the pot.

Type D (fig. 8). Transformative. The potter works on a rapidly turning wheel and uses centrifugal force to throw a hollow cylinder from a lump of clay and form the rim. She cuts the cylinder off the wheel so as not to leave a base, then uses paddle and anvil to close the hole and shape the finished pot.¹⁷

Type E (fig. 9). Additive. The male potter works on a turntable barely wider than the pot base diameter, attached to a bamboo section fit over an upright spindle. He sits before a semicircle of ten or more turntables to work on a series of pots in turn, building up the flat-bottomed vessel with clay coils in several stages. The pot is finished with this process and has a flat bottom.¹⁸

Type F (fig. 10). Additive or Transformative. In the additive version, the potter works on a turntable; she makes a flat base and attaches a slab of clay to its edges to form a cylinder, which she then throws, revolving the turntable herself, to shape vessel wall and rim. In the transformative version, the potter works on a fast wheel spun by an assistant, who prepares a solid cylinder that the

¹⁷ Lefferts & Cort 2000b discusses the use of kilns by potters making Type D earthenware.

¹⁸ Perhaps this production is related to Tai stoneware production; it is the only systematic use of men in producing earthenware; its processes, especially the replication of steps in building a piece using multiple turntables, accord well with Tai processes. We have only two examples of this process in our study area and the history of these sites relates to Shan (i.e., Tai) production in Burma.

potter throws on the wheel to shape the vessel wall and rim. In either case, the potter inverts the preform and uses a rattan, metal, or plastic hoop to scrape the edges and base to produce a rounded bottom.¹⁹

In all Types (except for E), the rim is shaped first rather than last; in most Types, the rim is not shaped on a wheel. Potters using types A or B technology achieve symmetrical rims by moving around the stationary preform. They grip the preform's upper edge within a moistened folded leaf or piece of cloth or plastic and walk quickly backwards around the cylinder, producing the regular rim profile by carefully calibrated hand positions and positioning their head and eyes above the pivot point.

The evidence above contradicts the assumption of a "coiling and throwing" model for producing round-bottomed earthenware pots. Despite the availability of ethnographic data to the contrary,²⁰ a common misconception exists about how early Chinese round-bottomed earthenware pots were made. Almost invariably, texts state that such a pot was "built up from coils" and the rim "thrown." Such a sequence of events would be impossible. Thus, our work raises the question of what Type or Types were used by ancient Chinese potters.

Mapping edges of production

Production of both earthenware and stoneware in pre-industrial but contemporary village-centered contexts is embodied behavior—passed down from one generation to the next and learned as a product of living with other people doing the same activities, much as one learns a mother tongue.²¹ Beginners internalize, through mimicking appropriate bodily movements, a sequence of direct manipulations of the clay that leads to the desired results. Whether for earthenware or stoneware, the body is the basic tool (such as in shaping the rim of a preform), complemented by a relatively simple tool kit.

All earthenware potters in a given village use either Type A, or B, or C, or another technology to make pots; we never found a mixture of technologies in a single location, although we did find variation within communities due to expertise or nuances of technique. By extension, when mapping all villages where Type A, B, or C is used—in Wenger's phrase, "communities of practice"—we map social relationships embodied in technology.²² The same may be said for villages making stoneware.

But where are the edges of earthenware Types? After noticing how different Types coexist in separate communities in Northeast Thailand, we explored in all directions to find the limits of given Types of production. This process resulted in the discovery of new Types. Types of earthenware production processes continue across the "hard edges" of modern political, linguistic, and ethnic boundaries and suggest connections based instead on shared technologies. The distribution of Types A, B, and C illustrates this point.

Type A earthenware production is centered in Cambodia, adjacent southern Vietnam, and Northeast Thailand. We hypothesize that Type A represents production initially associated with Khmer-speaking populations.²³ Potters in Northeast Thailand using Type A do not speak Khmer, and identify themselves as Thai-Khorat, a group said to descend from Khmer women who married Thai soldiers hundreds of years ago. Their use of Type A technology supports this hypothesis.²⁴

Type B production dominates southern Yunnan province, northern Thailand, and northern Laos. It is associated with Tai-speaking groups who moved into the region from southeast China and northwest Vietnam.

¹⁹ This definition, based on field work conducted after Lefferts & Cort 2003, expands on the explanation included there.

²⁰ To shed light on how Neolithic earthenware might have been made, Chinese archaeologists surveyed earthenware production by Dai potters in Sipsong Pan Na, southern Yunnan province, in the 1950s and 1960s, (see, e.g., Wang Ningsheng 1989). These important studies have been forgotten.

²¹ Cort & Lefferts 2005.

²² Wenger 1998. See also Stark 1998.

²³ Cort & Lefferts 2000a.

²⁴ Lefferts & Cort 1997, 1999.

Interestingly, Northeast Thailand, where the majority population is Lao, does have a few communities of Type B potters, but the dominant potting population is Thai-Khorat (Type A). This distribution appears to represent a layering of Type A over Type B production; local oral histories relate how, over the past two centuries, migratory groups of impoverished Thai-Khorat potters attached themselves to the fringes of Lao farming villages and replaced the work of women making Type B earthenware.²⁵

In contrast to these two broadly distributed Types, Type C appears to follow a long, narrow path associated with far-flung communities speaking variations within the Austronesian language family. This includes Cham potters on the coast of south-central Vietnam; potters in highland Vietnam, upland Laos, and upland northeast Cambodia; and potters in peninsular Malaysia. Additionally, a large community of Vietnamese speaking potters in Nghê An Province, at the southern margins of the Tonkin Delta, famously makes pots using this technology. The trail of Type C technology appears to map communication, possibly movement, among these diverse communities.²⁶

In the absence of written histories of movements, interactions, or technical dominance or subservience, these maps of earthenware technological Types describe "histories," although much more needs to be done to be able to "read" them.

For present-day stoneware production, the quest to identify "edges" and "histories" is assisted by a somewhat clearer sense of historical production in the region. Although past production of both unglazed and glazed stoneware is known in Cambodia and northern and north-central Thailand, the standard view is that production ceased centuries ago, for reasons still to be explained.²⁷ The two areas of contemporary Southeast Asian stoneware production, coastal Vietnam and Northeast Thailand and Laos, are located within two regions distinguished by different patterns of kiln technology. Archaeologist Don Hein has identified and designated these as "Coastal" and "Interior."²⁸ He proposes two separate paths for the introduction of these kiln-building practices from China.

In Vietnam, the location of stoneware-making communities along the coast represents the dispersal southward of stoneware technology associated with the expanding Dai Viet kingdom. Unlike Red River Delta sites that produced the better-known white stoneware and depended upon specific sources of appropriate clay, these communities make brown stoneware, either unglazed or coated with dark slip-glaze; the migrant potters who established them were able to find appropriate materials in new locales.

Northeast Thailand and adjacent lowland Laos comprise a single Lao culture. Lao is part of the larger Tai linguistic family, including Lao, Tai Dam and Khaw of northwestern Vietnam and Thai of Thailand. We hypothesize that the pattern of stoneware production in Northeast Thailand and Laos resembles that once practiced far more widely by various groups of Tai.²⁹ Tai-related stoneware production in Northeast Thailand replaced earlier Khmer production.³⁰ Current stoneware production in Northeast Thailand and Laos is much reduced from the number of kilns that operated there until a century or so ago.³¹

Edges and ethnicities

As we approach a fairly complete mapping of the distribution of technological "lineages" for both earthenware and stoneware, we consider the implications of these variations.

²⁵ See Lefferts & Cort 1999.

²⁶ Lefferts & Cort 2010.

²⁷ In recent years, with the discovery and first excavation of a kiln in the Angkor region making brown-glazed storage jars, and with ethnographic evidence from both Cambodia and Vietnam for the use of such jars into the present day, the assumption that Angkorian stoneware ceramic production ceased with the close of the Angkor period in the fifteenth century is being reconsidered.

²⁸ Hein 2008.

²⁹ Cort & Lefferts 2000b.

³⁰ Cort 1991.

³¹ Walailak Songsiri 1996 (2008).

Ethnicity—the standard by which ethnographers (and politicians of the region's nation-states) divide the many groups of peoples living in the region—is one issue. Our discussion makes reference to potters' "ethnicity" as they define it, as, for instance, Thai-Khorat potters of Northeast Thailand. Nonetheless, we have learned not to couple technological types with "ethnic" assumptions.

For example, potters in upland central Laos told us they were "Lao," even though their Type C production set them apart from standard "Lao" practice. They appeared to reflect current Lao government efforts to embrace all "ethnic groups" within the nation as "Lao." Similarly, potters employing Type C production in highland southern Laos also first stated they were Lao, but during a later visit told us their ancestors had been Kuy—speakers of a language in the Mon-Khmer family.³²

In Northeast Thailand, a village of potters used Type A technology. We assumed they were Thai-Khorat, but they explained they were Lao, descendants of women who had observed the technology brought to the village by Thai-Khorat immigrants; they eventually made it their own.

Given such revelations, we are cautious about associating a type of technology with the "ethnicity" of the potters who practice it. The same holds for language, a highly flexible tool immersed in politics and power, in a region where dozens of different languages and dialects are spoken. The malleability of ethnicity and language has reinforced our reliance upon witnessing the making of the preform for purposes of classifying lineages of potters.

Gender and technology

Women produce earthenware pots throughout mainland Southeast Asia, with the single exception of Type E technology.³³ The reasons for this are not uniform. Among the Tai, women inherit household property and land and are the center of family stability. They typically make earthenware in the shade beneath or near their home. Earthenware production takes a full day, with a sequence of steps interspersed with drying periods. These intervals enable the potter to attend to other household tasks, such as preparing meals and tending children. The plot of open land used for firing is within easy reach of the household. In Vietnam, where men inherit property, women more often work as employees in workshops or small factories and make either earthenware or stoneware.

Stoneware workshops and kilns in villages in Northeast Thailand and Laos typically are clustered outside the community. In the past, when river boats distributed finished pots, kilns were built into the riverbank. Firing the kiln lasted a day or two and required men to stay away from home overnight. Such behavior was not condoned for women.

Transmission of technology

In villages where the technology for making earthenware or stoneware was introduced recently, patterns of transmission are distinct and relate to the potters' gender. Thai-Khorat women making earthenware migrated with their families, first by oxcart and later by train, into most of Northeast Thailand and across the Mekong into Laos. By contrast, in several villages where men made stoneware, we were told of a single male potter who had arrived in the community and taught local men. Similarly, the single village in southern Yunnan province where black earthenware is made owes production to a lone man who introduced the skills, which included operating an updraft kiln to create the black finish.³⁴

Once a technology is established, the community forms the setting for transmission and training, which appears not to be secret. Women learn from their mothers or other older women. Men said it takes but a few weeks to grasp the gist of making stoneware. One potter described how, upon deciding he would like to make pots, he had gone to the nearest pottery-making community at the appropriate

³² Lefferts & Cort 2010, p. 175.

³³ Lefferts & Cort 2008a.

³⁴ Wang Ningsheng 1989; Cort & Lefferts 2012.

time and picked up the skills by watching. We once observed a young man sitting next to a proficient potter to absorb the process.³⁵ Since a pair of potters is required to make stoneware, a man may learn by serving as the spinner, affording direct observation of the shaper's techniques. These approaches to learning contrast to the Japanese notion of prolonged apprenticeship, during which the master's "secrets" must be "stolen."³⁶

Economic roles of pottery production

In most mainland Southeast Asian village contexts, men and women view pottery making as one skill among many to be deployed for extra income, beyond the major activity of farming. In communities where men make stoneware, alternatives to making pots included going to a city to perform menial labor or even working overseas for a number of years. The latter is viewed as the way for a young man to amass enough cash to marry, build a house, and buy land. Subsequently, he may turn to stoneware production as a way to earn annual supplemental income.³⁷

Among many women who make earthenware, the process is a personal choice that depends upon financial need. A woman may decide to make a load of pots to barter or sell for cash. She digs and processes the clay, makes a dozen pots, fires them, and carries them to adjacent villages or the nearest market. More broadly, pottery making is put to use at certain times in a woman's life cycle, typically when her children are old enough to care for themselves. If she also weaves cotton or silk, she will put great effort into that activity before marriage and as a young bride, before she has children and while her eyesight is excellent.

Thai-Khorat women, who make pots full time, are an exception.³⁸ As migrants they owned little or no land and relied on pot-making to support their family. They worked year round, adapting procedures to cope with the rain. They could make twenty to thirty pots a day, rather than a dozen. Their husbands dug clay and took pots to sell; their mothers looked after small children if they were not making pots themselves; and even children helped with preparing clay and other tasks. However, as these households amassed wealth and bought land, they gradually came to resemble neighbouring Lao households. Today, in most formerly Thai-Khorat villages or neighbourhoods, most households call themselves Lao, speak Lao, and live exactly like their Lao neighbors.

Connections between earthenware and stoneware

Type B earthenware technology poses a basic question: why make a flat-bottomed preform only to have to round out the edges to make the necessary round-bottomed pot? Most potters working in Type B mode use some sort of flat surface—a wheel, or a flat board rotating on a support or on the potter's knee—to shape a preform with a flat base. This attribute of Type B earthenware technology indicates its possibly close historical connection to technology used by male Tai stoneware potters. We propose that Tai communities migrating into Southeast Asia brought a technological "package" for making stoneware and earthenware together.³⁹

Today, in a few places along both sides of the Mekong River, the same communities make both stoneware and Type B earthenware. In one village in Northeast Thailand, men who made stoneware vessels also used their wheels to shape flat-bottomed preforms for women's earthenware. One man explained, "My father made jars; my mother made cooking pots. They go together with the wheel—they are the same." Potters added two different tempers to the single clay body to create the distinctive properties of the two types of ceramics. In a few other cases, also in that region, nearby communities

³⁵ That scene forms the banner image for the home page of *Ceramics in Mainland Southeast Asia*, <http://SEAsianCeramics.asia.si.edu>.

³⁶ Haase 1998.

³⁷ Lefferts & Cort 1994, Cort & Lefferts 2001.

³⁸ Lefferts & Cort 1997, 1999.

³⁹ O'Connor 1995 discusses aspects of agricultural technology that Tai potters introduced into the region.

linked closely by marriage exchanges make either Type B earthenware or stoneware, functioning as complementary villages to supply the totality of ceramic requirements for their area.

Since Type B earthenware technology predominates in both northern Thailand and southern Yunnan province, we expected to find Tai stoneware production in Yunnan as well, but that is not the case today. In Yunnan, the wooden wheel used elsewhere by Tai stoneware potters is used by women making Type B earthenware. Stoneware made and used today has a different source—Han potters whose ancestors migrated from Changsha, in Hunan province.⁴⁰ Did those immigrants introduce a stoneware technology and marketing system that overwhelmed an older Tai stoneware production?

Conclusion: Meanings of making pots in mainland Southeast Asia

Our effort to map terrains for the various types of technology for indigenous earthenware and stoneware production aims to get beyond the limits of local ethnographies and contribute to what Richard O'Connor has termed a "regional anthropology" for mainland Southeast Asia.⁴¹ It also endeavors to add a dimension of material culture to regional studies, including O'Connor's own study of agricultural technologies.⁴² Focusing on technology offers alternative means of understanding relationships among peoples living in a region which stretches across political, linguistic, and cultural borders. This study summarizes and begins to conclude a project begun over twenty years ago; it charts parameters for further research by others, some of which we are glad to say is underway.⁴³ Much more remains to be done in the field of material culture focusing on mainland Southeast Asia.

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⁴⁰ Cort & Lefferts 2012.

⁴¹ O'Connor 1995, 2011b.

⁴² O'Connor 1995, 2011a. See also White 2011.

⁴³ For example, Kobayashi Masashi and his team have made use of our survey to plan intensive ethno-archaeological field studies related to their focus on evidence for detecting earthenware production and use. See Kobayashi 2011.

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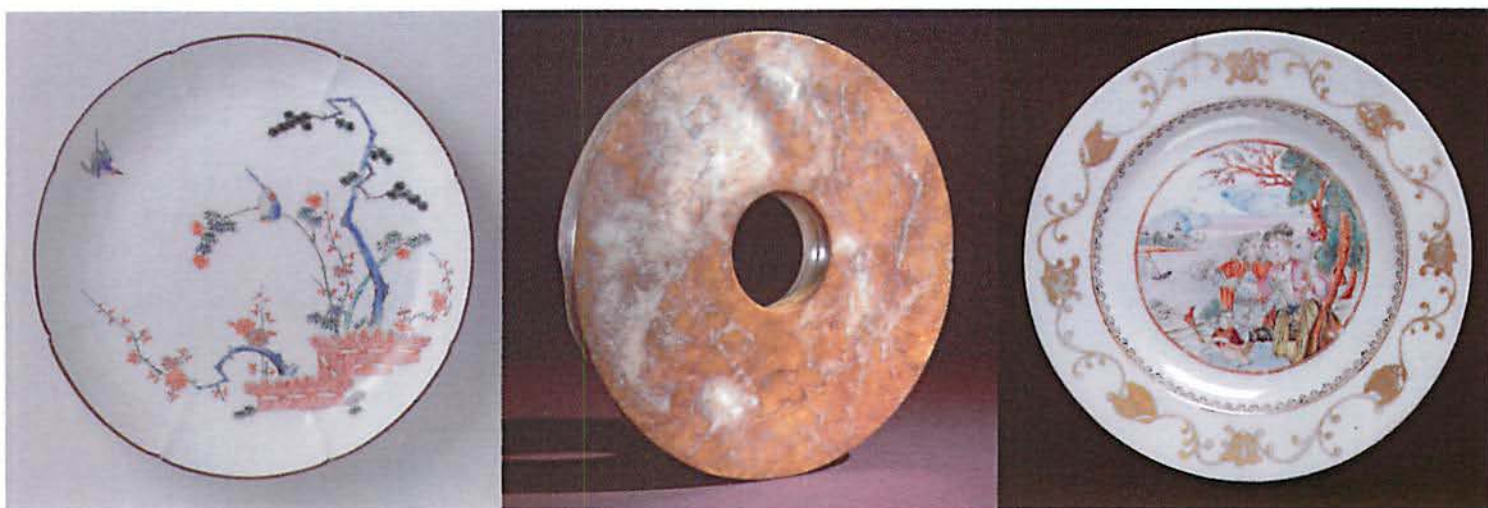
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