Women at the Center of an Industrializing Craft: Earthenware Pottery Production in Northeast Thailand¹

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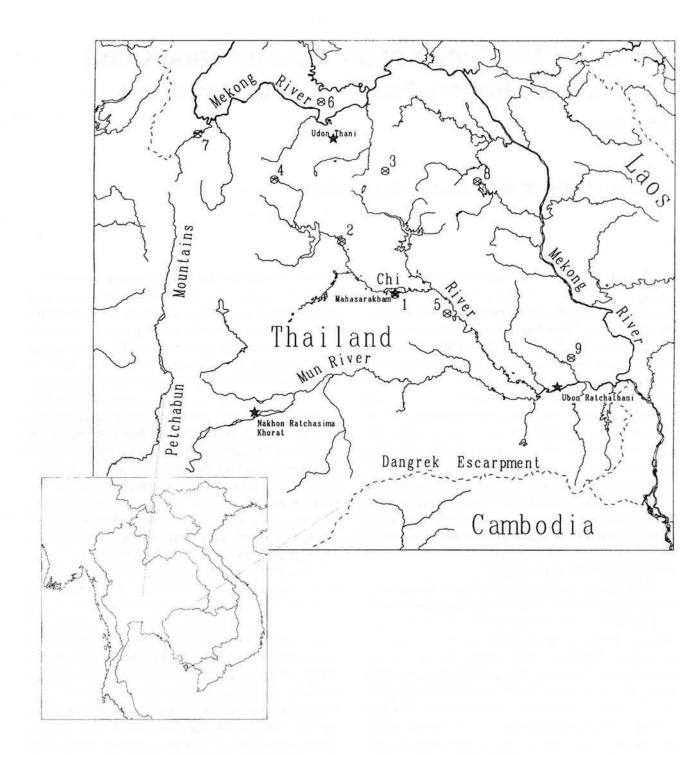
rchaeologists have long known that pottery provides an enduring, sometimes sensitive, indicator of cultural continuity and change. In "developing"2 Southeast Asia over the past century, however, industrially manufactured goods such as plastic and metal buckets, glass bottles, aluminum cooking pots, factory-made ceramics, and refrigerators have been replacing locally produced pottery. This substitution may be driven not only by utilitarian factors such as cost and durability, but also, and perhaps more importantly, by education and perceptions of modernity and consumerism. While Southeast Asian ethnographers have seldom studied the household production of utilitarian earthenware pottery, this paper proposes that studies of current production and consumption of locally produced pottery may provide acute measures of the influence of market forces.3

This paper presents preliminary conclusions derived from intensive research among contemporary potters across the geophysical region of the Khorat Plateau-the administrative region of Northeast Thailand—supplemented by work in the remainder of Thailand, Laos, Cambodia, and Vietnam. The conclusions of this research are, in brief, that conditions of change, coupled with the social and ideological preadaptation of a particular ethnic group associated with a certain technology for the production of earthenware pottery, have contributed to the expansion of this ethnic group across the region. This ethnic group calls itself "Thai-Khorat"; following Kriedte, Medick, and Schlumbohm (1981), we term the particular social organization that perpetuates this form of pottery production "proto-industrialization" at the household level.

Proto-industrialization is full-time craft production at the household level involving both men and women in the acquisition of resources, and production and distribution of a single product. This production usually excludes other possible remunerative or subsistence activities, such as part-time employment, rice-growing or other cultivation, etc., which would make one of the adult household members unavailable for craft production on a systematic, regular basis. Throughout Northeast Thailand (and mainland Southeast Asia in general), pottery production is women's work. Thai-Khorat women potters, however, delegate aspects of production and distribution to their husbands and children, creating efficient household-based units for the intensive production and aggressive distribution of earthenware.

We have observed that such pottery-producing, proto-industrialized Thai-Khorat households replace potters whose single-handed production and distribution is a less critical part of the social organization of their households, whose members are involved in a broad spectrum of production activities. While we are unable to identify all of the mechanisms by which households of one ethnic group have become associated with intensive, proto-industrial earthenware production, we propose that contextual factors such as improvements in transportation and the increasing size of the consuming public are significant.

These observations apply to the complex distribution of earthenware pottery production across Northeast Thailand. Previously, Thai pottery production by different ethnic groups has been described as essentially similar (Samruad 1989,



1. Map showing earthenware pottery producing sites noted in the text. Map by Daniel G. Cole.

Thai-Khorat Technique

- 1. Baan Maw, Mahasarakham Province, Thailand
- 2. Baan Wang Tua, Khon Kaen Province, Thailand
- 3. Baan Kham Oo, Udon Thani Province, Thailand
- 4. Baan Nong Bua Kham Saen, Nong Bua Lamphu Province, Thailand
- 5. Baan Thoet Thai, Roi-Et Province, Thailand

6. Baan Phaa Khaaw, Vientiane Province, Lao PDR

Other techniques:

- 7. Baan Na Krasaeng, Loei Province
- 8. Baan Chiang Khrua, Sakhon Nakhon Province
- 9. Baan Don Chik, Ubon Ratchathani Province

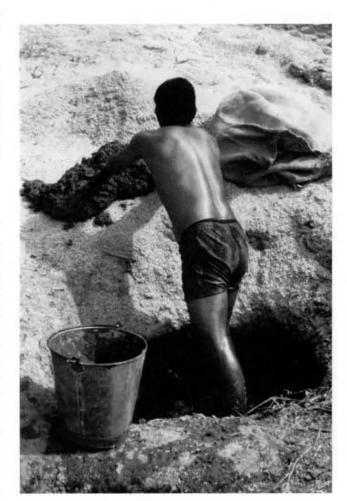
Solheim 1984). Our studies show, however, that both the techniques and social organization of production differ significantly between ethnic groups. Earthenware production in Northeast Thailand is dominated by members of one ethnic group employing a single technology, specializing in a limited repertory of forms, and associated with a social organization that seems not to be indigenous to the Thai-Lao population that forms the major ethnic group of the region.

Northeast Thailand (Isan)

Northeast Thailand (see map, fig. 1), known colloquially as Isan (Sanskrit for "northeast"), comprises approximately one-third of the land area and one-third of the population of the Kingdom of Thailand. Corresponding to the geophysical entity called the Khorat Plateau, Northeast Thailand is distinct from the remainder of the Thai Kingdom. This plateau, except for isolated large hills in its northern section, is a gently rolling landscape with low ridges separated by depressions in which water collects during the rainy season. Seasonally rain-fed rice fields form the major agricultural strategy of households living in nucleated villages located on the slight ridges between the fields.

Northeast Thailand is separated from the Central Plains and North Thailand by the Petchabun Mountains. The Dangrek Escarpment to the south (forming the border with the Cambodian plain) has not been as formidable a barrier as the Petchabun Mountains, while the Mekong River (the border with Laos) has served historically more as a highway for commerce and the movement of peoples than as a border. Thus Northeast Thai populations have been more closely allied with those of present-day Laos and Cambodia than with those of Central and North Thailand (Lefferts 1998c). However, today the region's resources are dominated by Central Thai administration and education and Sino-Thai commercial interests. The most populous group in the region is the Thai-Lao, ethnic and linguistic Lao who, incorporated into the Thai Kingdom for over a century, have absorbed many Thai linguistic and cultural conventions. Scattered among the Thai-Lao are small enclaves of other Tai ethno-linguistic groups tracing their origins to populations incorporated into the Thai Kingdom along with the Thai-Lao.

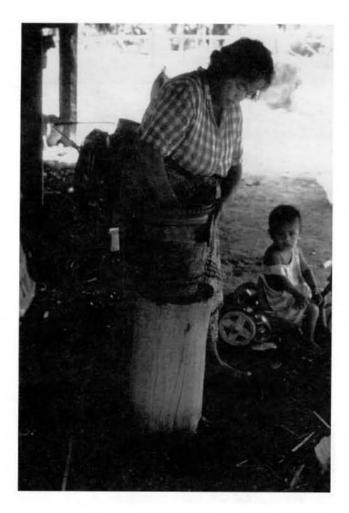
Khmer and Sui (Suay, Kuy) peoples, related to Khmer living south of the Dangrek Escarpment in



 Man kneading rice husks and clay to make temper. Baan Wang Tua, Khon Kaen Province, January 1995. Photo: Louise Cort.

Cambodia, form significant populations along the southern border of the Northeast. Finally, the Thai-Khorat people—the focus of this paper—primarily inhabit the area around the former Khmer centers of Khorat and Phimai. This Khmer area was initially incorporated into the Central Thai kingdom of Ayutthaya in the first half of the fourteenth century (Seidenfaden 1967:101). Central Thai rule has continued during the past two hundred years of the Bangkok empire. From the Central Thai perspective—and, therefore, officially—Khorat is known as Nakhon Ratchasima, "Royal Boundary Marker City."

In general, the ecology and social organization of all Northeast Thai populations appear strikingly similar (O'Connor 1995). Our study shows, however, that differences at the household level are sufficient to have an important impact.



3. Potter shaping pot with paddle and anvil on post while walking forward around it. Baan Wang Tua, Khon Kaen Province, January 1995. Photo: Louise Cort.

Thai-Khorat Pot Production

Baan Maw ["Pot Village," Amphur Muang (Capital District), Mahasarakham Province; map site 1], a community of approximately 180 households, is situated four kilometers south of Mahasarakham City, near the geographical center of Northeast Thailand. The majority of the community identify themselves as Thai-Khorat. Baan Maw potters engage in a more intensive production process involving a greater range of household members than we have observed among other ethnic groups in Northeast Thailand. In Thai-Korat locations, men are incorporated into support activities for pottery making that, in other Isan ethnic groups, are considered wholly women's work. At Baan Maw, men regularly procure the clay; make, dry, and fire the balls of rice-husk mixed with clay used as temper,

chua (fig. 2); pulverize these balls, sieve the powder, and mix it with potting clay; and knead the mixture so that it is ready for forming. The woman of the household, or another person such as a household grandparent or child, might also undertake these tasks. But the total involvement of all these household members in processes leading to earthenware production distinguishes Thai-Khorat households from all other families of potters on the Khorat Plateau.5 Moreover, other Thai-Khorat communities share these practices and recognize affinities with Baan Maw perpetuated through language, migration, intermarriage, continuing visitation, and a perceived common heritage.

The actual process of forming earthenware pots remains the sole domain of skilled women. Indeed, the involvement of other household members in preliminary stages of the process enables Thai-Khorat women to devote nearly all their working time to forming pots. Thai-Korat women potters produce earthenware ceramics using a technique not discussed in the standard ethnographic or archaeological literature (Rice 1987, Rye 1981, Shepard 1956). They begin by forming a solid cylinder of clay, bau. 6 They make all the cylinders for the day's intensive production of pots - between ten and twenty vessels - at once. These cylinders contain all the clay needed to form both the rim and the body of the finished vessel. The potter inserts her thumb into one end of the cylinder, creating a shallow hole; she inverts the cylinder and opens the other end in the same manner. She then pushes a stick through the remaining clay in the center, completely opening the cylinder. She expands and evens out the opening by lifting and revolving the cylinder on the horizontally held stick. To form a large pot, the potter stacks two identical cylinders rim to rim, creating a tall hollow cylinder with a greater mass of clay. In Baan Maw, the potter stands this hollow cylinder upright on a log section that serves as a worktable for the second stage of her work (fig. 3). She strikes a wooden paddle on the outside of the cylinder against a clay anvil held on the inside to round the walls slightly. Then she forms the neck and rim of the vessel by folding several wet leaves or a strip of plastic over the upper edge and gripping them while walking rapidly around the cylinder, alternating direction forwards and backwards, sawii tham pak.7

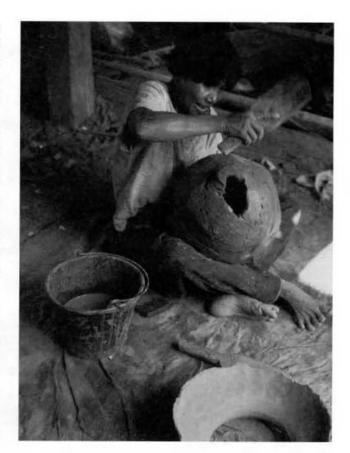
After this form dries sufficiently to retain the shape of the neck but is still malleable, the potter holds it on her lap and uses the paddle and anvil to close the base, bit thoop, and shape a nearly-spherical body (fig. 4). Shaping is done in two or three stages, with drying between each stage. The finished surface is smooth (Cort, Lefferts, and Reith 1997; Narasaki, Cort, and Lefferts 1994).

Men and women, jointly or separately, make the wood or bamboo bed on which the open-air firing takes place, cover the rows of pots with rice straw, and carry out the firing, pao maw (fig. 5). Other household members may assist. When the firing is completed, the man of the household loads the pots onto a vehicle—either a motorized tri-shaw or a pick-up truck—and spends one or more days traveling distances up to fifty kilometers hawking the wares in other villages (fig. 6).

Rarely do these pots find their way to stores. Although pots are sometimes sold locally to middlemen, members of pot-producing households state that they prefer their own men to sell pots because that secures the pot's retail price for the producing household. In either case, the job of selling outside of the producing village is exclusively male. These extensive selling trips, often alone, require men to stay away overnight, which women would not be allowed to do.

Men can participate in the production at every stage except that of actually forming the pot. A household in which men and women cooperate can produce significantly greater numbers of pots per day, day after day, than households of other ethnic groups which do not use men's labor. Moreover, if men also do the selling, the families can make even more money per pot. Women are the skilled workers at the center of this craft. Because of the intensive, year-round focus on pottery production of these Thai-Khorat households, we have termed this process and these households "proto-industrial" (Kriedte, Medick, and Schlumbohm 1981).

Current Baan Maw production includes a limited repertory of pot types. The basic form is a water jar (Thai-Lao, Thai-Khorat: u; Thai: $aeng\ nam$), made in large and small sizes, that cools its contents by evaporation of the water that percolates through the porous body. Water jar production is often supplemented by $maw\ sao\ lok$, pots for reeling silk, which are also used as a $maw\ nung\ khaaw$ for steaming sticky rice. However, this pot is now easily replaced by an aluminum pot of nearly the same shape. Small cooking pots, called $maw\ kaeng$, used mainly for steeping herbal medicine, $maw\ tom\ yaa$,



Potter closing base of pot using paddle and anvil.
Baan Wang Tua, Khon Kaen Province, January 1995.
Photo: Louise Cort.

but also serving as containers for interring ashes from cremations, are still in demand (Gittinger and Lefferts 1992:87, Khemchaarii 1982:14). Shops in the nearby city increasingly place orders for flower pots, kathang dauk mai, or for portable, hibachi-type stoves, tao, while restaurants order pots for preparing and serving specialty dishes.

While we first observed this intensive process in Baan Maw, it is repeated at several other locations: Baan Wang Tua (Nam Phong District, Khon Kaen Province, 30 households in 1994, in 1998 approximately 10, map site 2); Baan Kham Oo (Nong Han District, Udon Thani Province, one household, map site 3)⁹; Baan Nong Bua Kham Saen (Na Klang District, Nong Bua Lamphu Province, 30 households in 1994, in 1998, 50, map site 4); and elsewhere. When asked about their ethnic identification, members of these communities reply that they are "Thai-Khorat," distinct from the Thai-Lao of surrounding villages. Many say either they or their



5. Man preparing to fire flower pots. Baan Maw, Mahasarakham Province, January 1995. Photo: Louise Cort.

parents came from Baan Maw, Baan Wang Tua, or another production location. When pressed, moreover, many members respond that their ancestors came from Amphur Nong Sung or other districts north of Nakhon Ratchasima (Khorat) City in Nakhon Ratchasima Province sometime during the last hundred years. Partly through this history, potters identify themselves as Thai-Khorat, not Thai-Lao.

The language spoken in these villages is Thai-Khorat, not the Thai-Lao spoken by the surrounding population; ¹² the differences are recognizable to speakers of both Thai-Lao and Thai-Khorat (Smalley 1994:87–100, 112). Thai-Khorat villagers also distinguish themselves through the type of folk opera performed at village festivals sponsoring not the *maw lam* associated with the Thai-Lao, but *likay khorat*, which came to the Khorat/Nakhon Ratchasima area from Central Thailand.

Most Thai-Khorat women now wear the phaa sin, the regionally preferred tubular women's skirt, just as do Thai-Lao women. However, in the remembered past, their mothers wore phaa chongkraben, the long, dhoti-like skirt pulled back between the legs and tucked into the belt at the back that is said to be a distinguishing characteristic of Thai-Khorat ethnicity. Today, only in villages immediately adjacent to Khorat City and in Khmer villages in Cambodia and in the Mekong Delta of Vietnam do we find potters still wearing phaa chongkraben. Sometimes Thai-Khorat potters wear the phaa sin over trousers for comfort and protection while working.

Notably, several Thai-Khorat communities or neighborhoods carry the name "Thai." Perhaps the best example is Baan Theot Thai (Thai Banner Village) in Thawatchaburi District, Roi-Et Province. A community in Mahasarakham Province where Thai-Khorat potters no longer practice their craft is known colloquially as Baan Chot/Baan Thai, the first name referring to the Thai-Lao village and the second to the adjoining community of Thai-Khorat



6. Man loading water jars (u, aeng nam) in tri-shaw to take to market. Baan Wang Tua, Khon Kaen Province, January 1994. Photo: Louise Cort.

potters. This combined village is officially named Baan Bua Baan (Lotus Blossom Village). The colloquial use of these paired names shows that local populations distinguish between the dominant Thai-Lao population and the immigrant Thai-Khorat potters.

In this region, a prime factor that distinguishes Thai-Khorat people is their proto-industrial method of producing earthenware pottery. While there are differences between the Thai-Khorat and dominant Thai-Lao populations in terms of language, dress, folk songs, and other mechanisms around which an ethnic group might coalesce, these do not appear to be significant or, more importantly, continuing sources of differentiation. Rather, the intensity with which these households engage in pottery production as a basis for economic survival tends to distinguish them from the surrounding population. This activity provides a mechanism for landless households to endure; the perpetuation of

differences in language and folk literature may be adjunct to that which defines their economic and social status.

Thai-Lao and Other Northeast Thai Pottery Production

Not all earthenware pottery production in Northeast Thailand is the same. Even though many of the same vessel types are made at most production sites, differing procedures are used to make them. The Thai-Khorat potters discussed above currently comprise the largest and most expansive population of earthenware pottery producers in Isan. Other potters call themselves Lao, Thai-Lao, Phu Thai or Sui (Suai, Kuy).

In these communities, men are not involved in production or distribution. The potter herself collects the clay, makes and grinds the temper (or, more usually, collects sand for temper), and kneads the clay body. Then she forms the pot, using one or The production process among Thai-Lao and other potters appears to be not as specialized and certainly not as intensive as in Thai-Khorat communities. For example, clay cylinders are given their final shape on upturned pots, rather than on posts made for the purpose, as used by Thai-Khorat potters. The single Thai-Lao potter makes only eight to ten pieces in a day. Often the quantity of daily potting is limited by the amount of clay the woman can haul from the clay source in two buckets carried on a shoulder-pole.

Firing is entirely the domain of these women potters, who usually fire around 30 pots (four to five days' work), in contrast to the groups of 100 or more (five to six days' work) fired by Thai-Khorat husbands and wives. Similarly, selling is entirely the potter's responsibility; often a woman produces pots on demand, when people come and ask for them. She then trades them for other goods or sells them. Other times she walks the pots to a nearby village to sell or trade, returning the same day.

Thai-Lao, Phu Thai, and Sui pottery production is a part-time activity of women engaged also in other activities. They produce pots only in the dry season and then not if the weather is cold enough to chill clay and water. During other seasons of the year they engage in other activities including weaving, gardening, rice transplanting and harvesting, and wage labor in fields or in the market town. In short, these part-time potters are more engaged in activities at a subsistence level of production, in which each household is more nearly self-sufficient, than are Thai-Khorat potters. Thai-Khorat potters, whose lives depend on the market, are usually poorer than pottery-making women of other ethnic groups.

Under pressures of "modernization," pottery making is not passed on to the daughters of Thai-Lao women, who find other means of employment less dirty and more profitable. Overwhelmingly, Thai-Lao potters who showed us their production techniques were older women. They would recount how many more potters used to work in their village and how people used to come from surrounding villages to get their pots. This volume of production does not occur today. The location of the potters we interviewed is instructive. They are

at the geographic fringes of Northeast Thailand, for example on the Hueng River, which feeds into the Mekong River, at Baan Na Krasaeng, Tha Li District, Loei Province (one potter; map site 7) (Bayard 1977) or further south at the atypical site of Baan Don Chik, Thakan Phutiphon District, Ubon Ratchathani Province, with 90 producing households out of 130 (map site 9) (cf. Lefferts and Cort 1998a).

We found an exceptional yet telling circumstance in Baan Thoet Thai, Roi-Et Province (map site 5), where several Thai-Lao potters admitted learning from Thai-Khorat potters. The Thai-Khorat households with women potters had come to settle in a neighborhood of this village some decades earlier, but members of these households had subsequently given up potting and moved to more lucrative jobs such as taxi-driving in Bangkok. Among the Thai-Lao households whose women had learned potting from the Thai-Khorat, the men assisted in pottery production and distribution, but only during the dry season. These households continued to own and cultivate rice fields. The 80 households in this community that produced pots saw pottery as a source of supplementary income. We observed that the pots of these part-time potters suffered noticeably more breakage during firing and were less "finished" than the pots of Thai-Khorat women.

This case is instructive because, even though these Thai-Lao villagers learned the process from Thai-Khorat potters, the part-time nature of their potting and the continuing multisectoral nature of their household strategy mean that the members of these households adopted neither the skill nor the cooperative, intensive social organization of production employed by Thai-Khorat potters.

In just one Northeast Thai location men are completely in charge of earthenware pottery production; they also use a fast potter's wheel to shape the vessels. Baan Chiang Khrua, Amphur Muang (Capital District), Sakhon Nakhon Province, is in the far northeast of the Northeast (map site 8). These men supply the large area of the Sakon Nakhon Basin. In other discussions we have hypothesized that this production stems from a male tradition for producing stoneware that differs from all Isan earthenware traditions (Lefferts and Cort 1998a). We know of no Thai-Khorat potters who have migrated to this area, and no woman in Isan uses a wheel.

Discussion

The Thai-Khorat people have brought intensive pottery production into the Northeast, carried by households whose organization permits close cooperation between its members. These migrants, originating in a congested part of the Khorat Plateau, were driven from their homelands by poverty and lack of sufficient rice land but were unable to buy rice land in their new locations. Since the women of these households knew how to produce pottery, they were able to survive in an essentially landless condition. The migrants have sometimes formed entire villages of Thai-Khorat potters, as at Baan Maw, Mahasarakham. Often they settled in neighborhoods off to the side of larger, established Thai-Lao communities, as at Baan Thoet Thai, Roi-Et; Baan Chot/Baan Thai, Amphur Chieng Yun, Mahasarakham; and Baan Wang Tua, Khon Kaen. Thus, a Thai-Khorat landless underclass relying on pottery production based on the skills of women has become enclosed within a Thai-Lao majority. 13

The ethnicity of this group is in part perpetuated by their distinct system of pottery production and distribution. It is not necessary to hypothesize that all ancestors of these potters actually came from the Khorat region. Following Brian Foster's discussion (1973) concerning the perpetuation of ethnicity among Mon traders and potters, one may propose that the adoption of this technology and organization by a household in the context of landlessness could lead to the adoption of Thai-Khorat ethnicity. Under the regime of development currently in place in Thailand, however, we have not discovered any such households.

While the malleability of ethnicity and the construction of histories has frequently been remarked upon by observers in Southeast Asia, this phenomenon has not been studied in the Northeast. In this regard, the situation of "Thai-Khorat" potters in a village near Vientiane, Lao Peoples' Democratic Republic (geophysically part of the Khorat Plateau, but north of the Mekong River and not part of Thailand) is instructive (map site 6). During our first visit, these potters maintained they were and always had been Lao. They held to this declaration in spite of producing earthenware pottery using precisely the procedures we observed at Baan Maw and in other nearby locations in Thailand, where potters uniformly said they were Thai-Khorat whose ancestors had come from northwest of Khorat City.

Not wishing to doubt our informants and knowing this was a political question involving issues of nationalism, we desisted from further inquiries. When we returned to this village in 1997, however, we again asked this question. Two older women said that they and the parents of other potters had come from a Thai-Khorat potting village near Nong Khai City in the 1960s and that, after the 1975 revolution, some families had stayed. (We subsequently confirmed this story while talking to residents of the Nong Khai village.) We hypothesize that, in the case of these "Lao" potters, primary identification with the Lao nation is of greater importance than their assignment to a minority ethnic group that is part of the kingdom across the Mekong River.

Other aspects of Northeast Thai life have probably been important as well in accounting for the emergence of the specialization of Thai-Khorat potters. Three factors immediately come to mind:

- (1) The establishment in the late 1800s of a single administrative system under the Kingdom of Thailand amalgamated the remainder of the Khorat Plateau with the Nakhon Ratchasima area. This incorporation under a single administrative regime made the remaining area of Northeast Thailand accessible to the inhabitants of Nakhon Ratchasima (Tej 1977, Wyatt 1984). This incorporation, coupled with concern for defense against French colonialism in Indochina, led to the construction of the Royal State Railway from Bangkok to Khorat City and then further east and north. Several Thai-Khorat potters cited the railroad as the means by which they had arrived near their present locations.
- (2) The density of the current Northeast Thai population results in the emergence of viable, reliable, continuing, and closely spaced demand to support intensive production. Until satisfactory replacements for these pots become widely available, this market will remain constant and demanding. Along with an increase in population density has come a standardization of pot types. Producers can now make a limited series of forms with reasonable assurance that all will easily sell.
- (3) An extensive, reliable, mostly all-weather road network reaches almost all villages in Northeast Thailand (Moore et al. 1980). The roads provide a mechanism by which producers can reach most potential consumers relatively cheaply and easily using their own transportation. This also

means that specialized, "proto-industrial" production can be concentrated in a few locations and still reach many areas, except those on the geographical fringes (where potters of other ethnic groups continue to operate).

While electricity reaches all Northeast Thai villages and almost all households, many homes do not yet own refrigerators. Although people say that water cooled in earthenware jars tastes much better than water stored in a refrigerator, people prefer, if they can afford it, the more upscale refrigerator to a pot made in a village. The changeover from water-cooling pots to refrigerators is taking place. However, the custom remains of placing a water jar on a stump outside the house to provide a ready supply of cool water for household members, guests, and passers-by.

Conclusion

This paper has described how, under the influence of nationalism and modernization, the proto-industrial production of a particular craft earthenware pottery - has become associated with a particular ethnic group. 14 Thai-Khorat women potters in Northeast Thailand produce pots in such volume at a reasonable price and of such reliable quality that they have secured a niche in the Thai-Lao economic system. Households with rice land whose women produce earthenware pots remain Thai-Lao; these women eventually cease pot production. Such women say this happens because they have other, more pressing responsibilities, while the easy availability of Thai-Khorat earthenware pots as well as aluminum and plastic substitutes makes their own pot production unrewarding. Thus few Thai-Lao women continue to produce pots today. We sometimes felt, as we recorded these women's work, that they were making their last pots for us. Meanwhile, there is no reason to assume that Thai-Khorat earthenware production will last indefinitely. The pressures of modernization and the lure of more interesting and less "dirty" jobs elsewhere seem to lead to a slow but steady decline in the numbers of women producing pots and the number of young girls wanting to learn to pot.

Notes

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- This word is used as conventionally understood in economic and social development studies. The authors do not subscribe to the idea that the processes seen in "development" are, in any way, necessarily "progressive" or for the betterment of the populations concerned.
- Most of the few studies of mainland Southeast Asian contemporary pottery production in English have been undertaken by archaeologists as part of ethnoarchaeological concerns. See Bayard 1977; Longacre 1991; Longacre and Skibo 1994; Solheim 1964, 1967. Major exceptions are Lefferts 1988 and, more recently, Reith 1997 and Lefferts and Cort 1997.
- 4. Unfortunately, there seems to be no authoritative study in English on the Thai-Khorat people (see, e.g., Lebar, Hickey, and Musgrave 1964:205). References to them appear fragmentarily in other papers. Seidenfaden (1967:101) states that the Thai-Khorat people are descended from Khmer women and invading Central Thai soldiers who settled in the area. Smalley (1994:111-12), following Brown, hypothesizes that Thai-Khorat "may have arisen by a process of language change in which a Lao dialect... was gradually modified in the direction of Central Thai..., producing a new dialect mutually intelligible with (Central Thai), but not with Lao or any other language in the northeast."
- 5. A defining characteristic of most Baan Maw households is their full-time engagement in the production of pots; 80% of the 182 households in the village in late 1997 had one or more women making pottery. They did not own rice land. A few husbands may rent small amounts of rice land for the rainy season, but there is near total dependence on year-round production and marketing of earthenware pots. This is indicated by the percentage of households in poverty: the same 1997 village statistics showed that, of a total of 182 households, 143 are defined as "with need" (that is, below the nationally prescribed poverty level).
- 6. Glanzman and Fleming (1985:114) use the term "lump" to describe this first stage in the Thai-Khorat production cycle. In this stage the clay is deliberately formed and shaped into a cylinder, which is termed bau. Calling it "lump" fails to distinguish this production from techniques in which a more amorphous mass of unformed clay provides the initial step in the process.
- Nowadays in Baan Wang Tua (map site 2), approximately 100 kilometers north of Baan Maw, many potters stand in one place while the cylinder revolves on a fast wheel (made from a bicycle wheel); however, the principle remains the same.

- A more complete rendering of this production process is available in Lefferts and Cort 1998b.
- Baan Kham Oo, however, is atypical because this household recently—approximately 1970—settled here to provide many of the tourist pots sold at the nearby archaeological site of Baan Chieng. These pots are painted with distinctive "Baan Chieng" designs in nearby Baan Pulu.
- 10. Solheim describes one site which, while we have searched for it several years, seems to have disappeared: Baan Nong Sua Kin Ma "on the boundary between Udorn and Khon Kaen Provinces" (1964:156). It is possible that this village was flooded by the construction of the reservoir for the Ubolrattana Dam on the Nam Phong River.
- This migration stream, from north of Khorat City northeast into the heart of the Khorat Plateau, is opposite to that followed by the majority of Thai-Lao, who came from Laos to the southeast, up the Mun and Chi River Valleys (cf. Keyes 1976).
- Thai-Khorat spoken near Khorat City is described as "mutually intelligible with (Central Thai), in spite of having an atypical tone system..." (Smalley 1994:111–12).
- In addition, we must remember that all of this occurs within the national context of a kingdom controlled by Central Thai.
- 14. In more recent research in Kampong Chhnang, Cambodia, we discovered that pottery making is strikingly similar to that among Thai-Khorat potters in Northeast Thailand. Here also, men acquire clay, help the women potters, and, especially in marketing, parallel the Thai-Khorat approach. While we are unwilling to make a direct connection between Thai-Khorat potters and Khmer producers—this is especially problematic considering the lack of research in Khorat history—we have found a few sources that discuss continuing connections between Khorat/Nakhon Ratchasima and Cambodia from the fall of the Angkor Empire (ca. 1430) into the early years of the twentieth century. For instance,

In the report of his visit to the temple ruins at Phimai in 1912 Prince Damrong (1969:69) mentions that Phimai was a town of many merchants and traders. From interviews the authors learned that throughout the first half of the present century a thriving trade was maintained between Phimai and the Tonle Sap region (W)e spoke with many villagers who had either gone to Kampuchea as traders or who as children had accompanied their fathers on such expeditions. During the dry season after the rice harvest, caravans set off for Kampuchea on two or three month expeditions. Traders took metal bowls made in Bangkok, silk and cotton cloth from Khon Kaen and salt from Khorat salt domes to trade for Tonle Sap fish. With the salt the Khmer could preserve their surplus production of fish for export. The fish, along with wood for furniture, were taken to Surin, Khorat, or Phimai to be sold. The traders came from several villages, but all lived within approximately 10 kilometers of Phimai. Phimai was clearly the focal point of this trade activity. (McNeill and Welch 1991:329)

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