Ethno-archaeology in Jenné, Mali: craft and status among smiths, potters and masons

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**Ethno-archaeology in Jenné, Mali: craft and status among smiths, potters and masons**

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<td>An anthropological study of Djenne focused on ethnic groups and social class. The study is based on field research carried out in the early 1980s. 37 illustrations, including maps, tables, and photographs.</td>
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Glossary
Arma--Descendants of the Moroccans who captured the Songhai Empire in the 16th century and intermarried with the Sudanese populations, especially the Songhai. They are most populous in Timbuktu and the Niger Bend, but are also present in Jenn6. The individuals who consider themselves Ama are not a separate ethnic group, but a distinct social identity within the Songhai ethnic group. Many are artisans, particularly embroiderers, tailors, slipper-makers, and goldsmiths.
arrondissement (Fr.)--Administrative area. Mali is divided into eight regions (Fr.),
that are subdivided into cercles (Fr.). Cercles are further divided into
arrondissements.
Jenn6 is located in the region of Mopti, is the chef lieu (provincial capital) of the
cercle of Jenn6, and is also the chef lieu of the arrondissement central in that
cercle. Appendix A gives a listing of the villages in the
cercle of Jenn6 as of 1983.
Bambara--the largest ethnic group in Mali (about 40% of the total population).
Their language, Bambara or Bamanankan, is the lingua franca of the country, and is
in the Mande group of Niger-Congo languages. The Bambara in Jenn6, many of
whom were converted to neither Islam or Christianity, were not a large or socially
important group there. Elsewhere in Mali they are linked with numu, the
blacksmiths and their families, but that was not the case in Jenn6. Their
heartland is further south, around Segou.
banco--a general term for a mud mixture used in construction, and a kind of
architecture using coarsened mud (without
mudbricks).
bar--Strictly speaking, they are masons who have trained in Jenn6.
basfond--depression in the western part of Jenn6, surrounded by some of the
newer quartiers, which fills with water
during the rainy season.
baylo (Fulfulde)--goldsmith, blacksmith or other metalworker. Bobo--a Mande
ethnic group whose core area is south of the Inland Niger Delta and east into
Burkina Faso, possibly dispersed after the breakup of the Ghana Empire. The
Bobo are present in Jenn6 in small numbers and practice traditional religions and
Christianity primarily. Bozo--the most numerous of the fisher populations in Mali,
although they are only ca. 2% of the country’s population. In Jenn6 they are
considered the oldest of the urban groups, and constitute the largest number of the
Jenn masons, about 70%. They are Muslims, and
speak Songhai and Bozo.
cercle (Fr.)--administrative area (see arrondissement). chefdefamille (Fr.)--the
administrative head of a family, usually
the oldest living male of the lineage.
chef de quartier (Fr.)--the representative of a neighborhood to
the government, mostly for taxation purposes.
Formerly these men sat together on a council and had
decision-making power.
chef de village (Fr.)--political leader of a village and
representative to the central government.
daba (Bamb.)--hand-held hoe, made by blacksmiths, the basic
agricultural tool throughout the Western Sudan.
dessen (Song.)--pottery turntable (Fr., tournette), rotated by hand on an oiled spot
on the floor, used by the Somono/numu potters in the area of Jenn6 (and by other
potters elsewhere). It is shaped like a large dish with a thick, rounded bottom, and
contains sand or finely crushed pottery to support the clay during the
manufacturing process.
Dogon--an ethnic group of mostly millet agriculturalists, concentrated along the Bandiagara cliffs and the area above and below them, east of Mopti. Many Muslim Dogon, a minority in the Dogon population, go to Jenné to study with marabouts there and remain to work; some weave cotton in Jenné, some have apprenticed to masons, and many are involved in commerce or wage labor. 

Fulani--the major pastoral-based society in the Western Sudan. 
In Jenné they are Muslim, and many are active in commerce. Their society consists of two major parts: the pastoralists, and a lower-status group of endogamous artisan-praisesingers called griots (nyeenyBe, Fulfulde).

garanke (Mande)--leatherworkers, excluding Arma. griot--a class of people throughout the Western Sudan who perform prescribed services for families in diverse ethnic groups. Griots are a highly endogamous stratum of society. Most griots associate predominantly with the families of a particular ethnic group, but intermarry with griots in the service of other groups. In the area of Jenné, many griots associated with the Fulani are artisans, most often wool weavers, goldsmiths, wood carvers, leatherworkers, and potters. griotage--(Fr.) the socially ascribed activities of griots, including praisesinging for non-griot families, keeping of family oral traditions for payment, and acting as go-betweens in marriage arrangements and confidants for family members. 

gris gris--talismans dedicated to specific purposes, made of a combination of leather, metal, floral and faunal material, etc., often also incorporating paper carrying benedictions from the Koran. They can be worn or merely held in possession. Marabouts are consulted for the Arabic inscriptions, and blacksmiths and leatherworkers provide most of the other materials. imam (Ar.)--the leader of prayer associated with a mosque; the highest ranking official Muslim figure in a town. In Jenné the imam is usually Marka. 

jennefrey--unbaked mudbrick, shaped by hand, used for centuries in the region of Jenn until the 1940s. The Jenné bar claim it as a hallmark of their organization. Jennenk6--generally, a proper noun indicating someone from Jenné or an adjective used to describe someone or something from Jenni. Specifically, a person combining Marka heritage (therefore Islam), Songhai language, and other qualities considered fundamental to Jenné's identity, such as being involved in commerce. laabo or lobo (Fulfulde)--wood carvers. maabo (Fulfulde)--wool weavers. malejo (Fulfulde)--cotton weavers. Mande--an extensive linguistic and cultural classification stemming from a major family in the Niger-Congo group of African languages, and the largest such class in West Africa; related to cultural terms such as Mali,
Mandinka, Manding, and Mandingo. Important Mande groups include the Soninke, who were organized into the Ghana Empire, the Malinke or Marka, who were the founders of the Mali Empire, and the Bambara. In Jenn6 the linguistic and cultural classifications do not necessarily overlap; there are Mande speakers who are not of a Mande cultural heritage.

marabout--Muslim "saint," used in the Western Sudan to signify a learned Muslim man who teaches Islam. The more renowned marabouts attract students from long distances and take them into their households in relationships similar to those of a master and apprentice.

marigot--seasonally inundated channels (wadis) characteristic of the Inland Niger Delta and essential for natural irrigation, commerce, and transportation.

Marka--a distinct social group prevalent in the area of Jenn6, drawn from a variety of ethnic groups united under the Mali Empire. Marka are characteristically Muslim, rice agriculturalists, and are often engaged in commerce. The Marka speak Songhai in Jenn6, and Bozo in the hinterland, where they usually live in villages with Bozo and Somono.

Moinianka--an ethnic group of the Mande family, centered south of the Inland Niger Delta, whose members have remained largely unconverted to Islam or Christianity. "Minka" is the name often cited by the Jenn6 blacksmiths as the group responsible for smelting iron in the general area of San, until World War II or so. Mopti--commercial capital and major river port of Mali, built up by the French in the beginning of the 20th century, with a population of more than 100,000 in the 1980s.

Mossi--an ethnic group, most of whose members live in Burkina Faso. They are present also in Mopti and in certain villages in the area of Jenn6. Most are agriculturalists.

muezzin (Ar.)--man who calls Muslims to prayer from a position on or near the mosque. The muezzin in Jenmi had been Somono for several generations as of 1983.

numu (sing., pl. numuw) -Mande term for "blacksmith," and for the distinguishable social group of blacksmiths and potters (numu musow). Around Jenn6, the numuw are found closely associated with the Somono, but elsewhere, they are most frequently associated with Bambara.

nyeenyBe (Fulfulde)--members of the griot pinasse (Fr.)--wider and deeper version of the pirogue, approx. 15-25m long. Pinasses are used for transporting goods and people, and are propelled by a combination of human power, using poles, and small outboard engines. pirogue (Fr.)--flat-bottomed boat, measuring from about 6-15m
long, used in the marigots and rivers. They are pointed at bow and stern, and usually propelled by human power using poles.

pirogueur (Fr.)--men in the Bozo ethnic group who specialize in building pirogues.

Pondori--the area around Jenn6 roughly consistent with the cercle of Jenni; more specifically, the low-lying agricultural plain extending mostly south of Jenn6, where wet rice is the main cultigen.

quartier (Fr.)--part of a village or town designated as a separate neighborhood with a proper name.

Sahel --the ecological zone lying between the Sahara desert and the savannah in West Africa, mostly populated by pastoralists. It is sparsely wooded, with little rainfall.

The Inland Niger Delta is an anomalous environmental zone within the Sahel.

sakeh (Fulfulde)--leatherworkers. Segou--a major urban center(pop. ca. 60,000 in the 1980s) lying below the southern tip of the Inland Niger Delta. Segou was the center of the Segou-Bambara empire, which spanned the 18th and first half of the 19th centuries.

Somono--a distinct social group, mostly fishers and farmers, in the area of Segou and as far south as Jenn6. The Bambara brought the Somono together from other ethnic groups to perform river-related services in the thirteenth century or so. They are culturally Mande, and though they speak Bambara in their core area, they speak Songhai and Bozo around Jenn6. In Jenn6 they are the larger social group within which the blacksmiths are found. Also, muezzins at the mosque have been Somono for at least several generations.

Songhai--the dominant ethnic group of the Niger Bend urban centers (Timbuktu, Gao) and one of the key groups in Jenn6. The Songhai were founders of the Songhai empire, which ruled the Niger Bend from the 11th-16th centuries A.D. The Songhai are also a linguistic and cultural group outside the Mande group, but parallel to it in many ways. The Songhai are Muslim, and nearly always speak Songhai as their first language.

Tuareg--A Muslim group of mostly camel pastoralists of the Sahara and Sahel who have converged around Timbuktu and Mopti since the 1970s-1980s drought, and who are a presence in the area of Jenn6 as tinkers and leatherworkers.

Western Sudan--a geographic area extending from the Senegambian coast eastward through the Inland Niger Delta, as far as the area south of Lake Chad.
Chapter 1: Introduction
The Present Study
I undertook the research reported here in 1981 and 1983, in Jenné, Mali, as the basis for my Ph.D. dissertation (LaViolette 1987). I conceptualized this as an ethnoarchaeological study, in which I would explore the social and economic lives of three prominent groups of specialized producers: blacksmiths (specifically iron forgers, as smelting is no longer practiced locally), potters, and masons. These groups were chosen for two reasons, from a larger field of specialists working in the Middle Niger area. First, archaeological evidence for iron working (both smelting and forging) and pottery making spans some two thousand years in the area of Jenné in the southern Inland Niger Delta (S. McIntosh 1995, R. McIntosh 1998:176ff.), and key contributions of specialized producers and their products to the development of the Middle Niger's particular form of Iron Age urbanism, the urban cluster, had been hypothesized based on archaeological research (R. McIntosh 1991, 1999; S. McIntosh and R. McIntosh 1993; S. McIntosh 1999b; see also de Barros 1997). Specialized masons were probably not present in the earliest days of Iron Age settlement there, but may have emerged during the early to mid-first millennium, when high-density urban living was developing (S. and R. McIntosh 1984, 1993; S. McIntosh 1995). The second reason for the choice of these three groups was that blacksmiths, potters and masons provide a range of variation within patterns of contemporary specialized production, along matrices such as gender, apprenticeship style, scale of operation, marriage patterns, social status, work space location, and spheres of influence (see Costin 1998:6). From my first contact with members of each of the three groups in this study, it was evident that in contrast to much of the conventional wisdom about them, striking differences occurred within each group of specialists as well as between them. Thus blacksmiths, potters, masons, and their work were chosen not only because they represent producers, technical systems, and products associated with the Middle Niger since the deep past for use in conjunction with the archaeological record, but also a complex array of roles and strategies today, potentially rich fodder for talking about craft production. Jenné is located at the southeastern end of the Inland Niger Delta, a floodplain traversed by seasonally flooded streams extending 500km along the Niger River, roughly between Jenné and Timbuktu. The region's indigenous Iron Age urban
system was based at the archaeological site of Jenn&jeno, some 3km from Jenn&jeno, some 3k
From Jenn&jeno, some 3km from Jenn&jeno, some 3km from Jennêjêno. Contrary to the once standard view that urbanism was not a feature
of West African societies until North Africans developed colonial entrepôts to manage their trans-Saharan trading interests, archaeological evidence showed
definitively that urbanism predated North African economic involvement in the area (S. McIntosh 1995). It has been suggested that specialized craft producers,
particularly those involved with iron technology, were instrumental in the socioeconomic changes resulting in this early urban system and in many large-
recent and contemporary West African societies are central, elaborate, and have deep historical roots, as ongoing research about them by historians, art historians,
linguists, anthropologists and others continues to show (e.g., McNaughton 1988, David and Le Bîois 1988, David 1990, de Barros 1986, Tamari 1991, Berns
My goal was thus to document each of the chosen artisan groups in detail, and thus to provide examples, a kind of three-dimensional baseline, against which
archaeological evidence gathered by other researchers might be evaluated for the formative Early Iron Age period and later in this region. The idea was to look not
just at the productive processes and their material correlates, although that was the starting point, but at the producers and their social and economic networks, and if
possible, the material correlates of the latter as well. My interest in the persons and the systems, and not just the products, was tied to questions about
specialization and dedicated lineage production in the past, and the possible roles these may have played in Iron Age urbanism. Beyond identifying and analyzing
modem loci of craft activity, I wanted to see what lineage-based production might look like spatially: within households, within quarters and towns, and across the
region. On the regional scale, the people I studied were acting not only as producers strictly speaking, but perhaps, I thought, as mediators, helping to bridge
the region's settlements with their movements and services, providing a mechanism for integration across the vast landscape of island settlements in the
Ethnoarchaeological research always raises the question of the relevance of present-day situations to the past. As I was carrying out the study, the question of
potential archaeological relevance remained central, but the contemporary contexts in which blacksmiths, potters and masons were operating became increasingly important to the story. Thus, there is much within the following chapters that may not bear directly on specific archaeological problems of the
Early Iron Age. The
material of predominantly ethnoarchaeological significance is interwoven with that which has been of interest to students of the contemporary Middle Niger,
particularly in art history, history, and anthropology (LaViolette 1994a, 1994b, 1995; Frank and LaViolette 1994; LaViolette and Frank 1997).

Craft Production, Analogy, and Archaeology

In archaeology, the relationship between craft production and large-scale societies has been recognized since the time of V Gordon Childe's urbanism theory (1950; also Sjoberg 1955, 1960), but was not a common research focus until more recently. Anthropologists had largely ignored material culture and its creation, at least in terms of how goods and productive processes articulated with their larger sociocultural contexts (Pfaffenberger 1992). An implicit assumption, now hard to imagine, was that because people produce out of necessity, the act of production was not culturally meaningful; a correlate of that assumption was that the materials drive social change, making the role of the people creating material culture secondary, if not irrelevant (Childs 1994b:7-8). This view has now changed dramatically; culturally informed human agency has moved into the foreground within anthropological studies of technology, underscoring the choices at work at all times, in every society. Archaeologists, the nature of whose finds had led them to foreground material culture, and sometimes production, nonetheless tended to view technology as disembodied. Few studies presented comprehensive, contextualized pictures of the technical, social, and cultural in combination (ibid.:9).

Ethnoarchaeological research projects were one avenue that eventually helped researchers envision the stages and context of production in the past. Practitioners of ethnoarchaeology focus on living traditions as they can be used to interpret archaeological data. Despite the pervasive use of analogy in all archaeological interpretation, ethnoarchaeologists' juxtapositions of living and past behaviors were subject to critique and reinvention from within the discipline. In many ways, the ethnoarchaeological uses of analogy triggered productive debate about the potential and limits of analogy in archaeology generally (e.g., Ascher 1961, Gould 1978; Wobst 1978; Kramer 1979; Watson 1979a, 1979b; Gould and Watson 1982; Wylie 1982, 1985, 1989; Kent 1987; Stahl 1993, 1994). Archaeologists use analogy not only to make direct identifications of archaeological remains, but also to develop models of plausible cultural routines for use in the formation of hypotheses (Orme 1974:210-211; Watson 1979b, 1980; Watson et al. 1971:49-51, Wells 1984:9-10). Analogy is thus central to archaeological analysis, despite the ambivalent relationship practitioners continue to have with it (Stahl 1993).

In this study, I did not set out to draw direct historical analogies; the intent, rather, was to construct a comparative data set. The existence of direct historical and cultural continuity between the people of the southern Inland Niger Delta in the Early Iron Age and the people living there today—over a period of about two millennia—is not an underlying assumption of this study, despite substantial evidence of time depth for many of the contemporary social groups, institutions, and languages. Many students of the Middle Niger, from various disciplines and backgrounds, have come to discern what Rod McIntosh (1998:5) has termed a "shared corpus of deep-time values, a symbolic reservoir of beliefs and canons of authority," that
link the numerous peoples of this area over time and space, despite the abrupt changes and long-term transformations we also discern. So while this study is not a case of direct-historical analogy, it is mindful of the possibility of linkages, where there is evidence for them at different junctures. My guiding premise is that sociotechnical systems one can see in the late 20th century in Jenn6 are worth examining for their rich variety in this specific cultural and physical environment, and for providing a baseline for comparison with archaeologically and historically known examples.

Jenn6's dramatic and beautiful physical appearance, one protected by the Malian government as well as local organizations for its value to Malian patrimony, has changed relatively little over the last century (see B. Gardi et al., 1995). But of course, Jenn6 is anything but timeless, whether we talk about millennia, centuries, or even decades. My assumption is only that Jenn6 in 1983 was part of a living continuum, with relationships, if unknown, to many aspects of its history. Mande studies at large, and research in the Middle Niger, have progressed significantly since the present research was conducted, and the extent to which values and processes have persisted over long time spans certainly appears to be a historical feature of this place. So we proceed, both aware of the extent of the changes that have taken place since the area's settlement in the late first millennium B.C., and the growing knowledge about those aspects of culture, and society, which may have changed less.

The scholarly interest in craft production, technology, and society has increased in the last fifteen years, and many of the assumptions archaeologists took to the topic, stemming from Childe's formative vision of the role of producers in the service of the elite, have been rejected, modified, and made more sophisticated. Some of the most important and useful recent works on related subjects, a combination of theoretical treatments of the topic and case studies, include Lemonnier's (1976, 1986) essays on material culture and society, in which he introduced the concept "chaine opératoire," Brumfiel and Earle's (1987a) landmark collection, Specialization, Exchange, and Complex Societies; Pfaffenberger's (1988, 1992) important essays recontextualizing technology studies; Dobres' and Hoffman's (1994) and Dobres' (1995) work on early technology, gender, and social agency; Costin's (1991) and Costin and Hagstrum's (1995) research on defining the level of state involvement in ancient craft production; Wailes' (1996) collection, Craft Specialization and Social Evolution: In Memory of V Gordon Childe; Stark's (1998) edited volume The Archaeology of Social Boundaries, which draws heavily on studies of technical systems; and Costin and Wright's (1998) edited volume, Craft and Social Identity. As Hegmon (1998:264) noted, two positions once thought radical--that "style has function" (Wobst 1977) and "technology has style" (Lechtman 1977)--are now canonical in the anthropology of technology and craft production, and much of the work noted above has followed from these premises. That material culture does not just make itself--that it is created by gendered and otherwise socially and culturally situated men and women, through technical systems they also create--has been theorized and illustrated in numerous
studies (see Silverman 1999 for an excellent recent volume concerning Ethiopian artisans).

The present study, although it took place prior to much of this interest in artisans and craft production, now has a more developed theoretical context in which to make a contribution.

Organization of this Volume

In the following chapter, Chapter 2, I provide archaeological and historical backgrounds for Jenn6-jeno and Jenn6. Chapter 3 covers the methodology of the project. Chapters 4 and 5 are overviews: the ethnic groups who provide the cultural framework for the present research, and the full complement of major craft producers in Jenn6, respectively. Chapters 6, 7, and 8 present the bulk of the research pertaining to blacksmiths, potters, and masons in Jenn6, including related evidence from the archaeological record and other work in Africa. Chapter 9 provides a concluding discussion.

Chapter 2: Jenne-jeno and Jenne as Research Contexts

Archaeological and Historical Overview from Jennejeno to Jenn6

Archaeological Explorations and Regional Historical Developments. Since the turn of the century, the potential archaeological richness of the southern Inland Niger Delta has been known to western administrators and researchers (Desplagnes 1907; Frobenius 1929; Vieillard 1940; Monod 1943, 1955; Mauny 1961) some of whom carried out systematic investigations (Szumowski 1954, 1955, 1956; Barth 1976, 1977; especially Bedaux and Huizinga 1975, Bedaux 1976, Bedaux et al. 1978). In 1977 and 1981, R. McIntosh and S. McIntosh conducted major archaeological excavations at the abandoned settlement of Jenn6-jeno, considered locally the ancestral site of Jenn6, as well as at several other of the hundreds of deserted settlement mounds in the low-lying area of the Inland Niger Delta in which Jenn6-jeno and Jenn6 are situated, research that spanned the last centuries B.C. through the mid-second millennium A.D., and which provided a firm pottery chronology and a wealth of other information about the Iron Age of the region (S. McIntosh 1995:1516). That research inspired this study, as well as a number of related archaeological projects in the immediate and greater regions (e.g., Haskell et al. 1988; Togola 1993; MacDonald n. d., 1994; Clark 1998). Jenn6-jeno is located 3km southeast of the present city on an ancient levee of the Bani River, the major affluent of the Niger. The Inland Niger Delta, lying in the West African savannah, is considered to have been an 'optimal zone' for several millennia--rich in agricultural and pastoral potential, in game, in fish, and in the raw materials for craft production (Connah 1987:97-120). The earliest inhabitants for whom archaeological evidence is available arrived at what would be Jenn6-jeno and other nearby sites in the 3rd century B.C. The material culture from Jenn6-jeno suggests that these people originated in the southern Sahara, and moved south probably in search of less arid conditions, subsisting on mixed agriculture, fishing, and hunting (R. McIntosh and S. McIntosh 1979, R. McIntosh 1998).

Rapid population increase followed the settlement's founding, with Jenn6-jeno burgeoning from a small hamlet to a town of 25 hectares (ha) by A.D. 300 (S.
possibly owing to socioeconomic elaborations of resource control, and intra- and interregional trade. Jennjeno as an economic entity was involved in trade with the Sahara no later than the 5th century A.D., at which time Saharan copper appears in the archaeological deposits, and in trans-Saharan trade routes by approximately the 10th century. Adopting a regional approach to urban process as opposed to a city-centric one based on traditional urban models (Wirth 1938; Childe 1950; Sjoberg 1955, 1960), the McIntoshes carried out systematic intensive surface collections in 1977 and 1981 on nearly 20% of the abandoned settlements visible in aerial photographs in a region measuring over 2,000 km sq. (R. McIntosh 1979). They were able to establish that Jennjeno sat atop a four-tiered settlement hierarchy comprising hundreds of sites, all of which, based on the ceramics and other surface artifacts, appear to be linked to it by the late first millennium A.D. (R. McIntosh and S. McIntosh 1981:29, R. McIntosh 1984). The mechanisms integrating the countryside are not fully understood; regional survey research conducted by M. Clark (1998), combined with survey data collected by R. McIntosh (1983), should prove useful in addressing this question. Characteristics of the early settlement pattern around Jenn6-jeno include the phenomenon of site clustering, in which up to 15 contemporary sites lie within 200 m of each other (S. McIntosh and R. McIntosh 1984:89, R. McIntosh 1999). This clustering tendency ended ca. A.D. 900 in this area, when dispersed sites began to dominate the countryside, as they continued to do ever since. Also, outlying settlements began to be abandoned at this date, and Jenn6-jeno reached its maximum size. It has been hypothesized that site clusters were an indigenous form of urban settlement in the Inland Delta and its environs (S. McIntosh and R. McIntosh 1981, 1984; R. McIntosh 1991). Evidence from archaeological survey in this region and research in adjacent regions (e.g., Bedaux et al. 1978) indicate that subsistence and artisan production were not evenly distributed across the landscape, such that only certain activities were happening on single sites; in the urban cluster, most activities were represented, but in discrete locations in nodes of the cluster (see R. McIntosh 1983, 1984; S. McIntosh and R. McIntosh 1984, 1993). In the cluster, it is suggested, power was shared by corporate groups, rather than wielded by an individual, or small groups of elites (R. McIntosh 1991, 1998:176, 1999). When sites dispersed after A.D. 900, specialization probably dispersed as well, giving us a version of the pattern we see also in the 20th century, where villages with certain ethnic and specialist groups in residence conduct a subset of regional subsistence practices and, sometimes, craft specializations. We will return to the topic of localized specializations below, as it pertains to artisans. Jenn6-jeno began its decline in the first centuries of the second millennium A.D. This was the time period when, according to the pre-1980s conventional wisdom, North African economic interests in sub-Saharan Africa had led to the growth of cities such as Jenn6 and Timbuktu in the savannah (Miner 1953, Ajayi and Crowder 1971, Bovill
Jenn-jeno had become a transcontinentally important trading center, overseeing mercantilism at the southern end of the critical Inland Niger Delta--a well-watered, easily traversed haven in a less hospitable band of dry savanna--just as Timbuktu, its own regional settlement history possibly much older than the traditional 11th-century A.D. founding date (S. McIntosh and R. McIntosh 1986), controlled the northern end of the Inland Niger Delta on the shores of the Sahara. The story of urbanism in the West African savanna, although still far from complete, has been shown by the McIntoshes to have been an indigenous development. It was a process that predated serious North African interests in the area, and indeed attracted those interests to it.

The particular catalysts of Jenn-jeno's demise remain unclear, but the city's abandonment coincided roughly with the dates for Islamicization of the area, according to the chronicler as-Sa'di in the Ta'rikh es-Sudan (1964 [1900]; R. McIntosh and S. McIntosh 1981:17; see also Insoll 1996). By A.D. 1400, Jenn-jeno was abandoned. The traditional links between Jenn6-jeno and nearby Jenn6 suggested that a large portion of the former's population moved directly to the latter, but the settlement history may be more complicated than this. Traditions pertaining to another ancient commercial town in the region, Dia, about 80km northwest of Jenn6, claim that Dia was the origin of a diaspora of merchants across the Western Sudan; in the tradition, this diaspora gave rise to Jenn6, which later eclipsed Dia in its economic centrality (S. McIntosh 1981, 1995; Perinbam 1974; see also Haskell et al. 1988, MacDonald n.d.). Coring carried out in Jenn6 in the mid1990s suggested the presence of deposits dated to the 9th century A.D. at the latest (R. McIntosh et al. 1996, R. McIntosh 1998:173). Excavations were begun in January 1999 and will continue within the town itself, conducted by R. McIntosh, S. McIntosh and T. Togola (S. McIntosh, pers. comm., January, 1999), that will undoubtedly help clarify the early history of Jenn6 and perhaps its relationship with the older site. Some portion of the population of Jenn6-jeno may have moved to Jenn6, and possibly to other sites as well, at the time of Jenn6-jeno's demise, but if Jenn6 had already been occupied at least a half-millennium, it is unlikely that it absorbed as many people as once thought (S. McIntosh and R. McIntosh 1980, R. McIntosh 1998). Whatever the specific historical circumstances of Jenn6-jeno's decline, the population movements were part of a more widespread demographic reorganization in the western Inland Niger Delta at that time (R. McIntosh and S. McIntosh 1981:18-19, S. McIntosh 1995, R. McIntosh 1998).

Ultimately, the improvement of sea routes from Europe to the western and southern coasts of West Africa, beginning in the reign of Portugal's King Henry the Navigator in the early to mid-15th century, favored the sea routes over those through the desert. The slowing of traffic through Timbuktu and Jenn6, and the conquest of the Songhai Empire in the 16th century, began an economic decline from which the area has never recovered. This trend was exacerbated by instability accompanying the rise and fall of regional political powers, especially that of the Fulani theocracy of Massina in the early 19th century (Brown 1969, Ba and Daget 1982, Mayor 1997), and the Tukolor Empire of the late 19th century.
By the time the French occupied Jenné at the close of that century, it was a regionally important economic, cultural, and religious center, still with a potentially rich agricultural hinterland and still the apex of a settlement hierarchy, but no longer an economic power (Monteil 1971 [1932], Tymowski 1974). The most relevant documentary mentions of Jenné from the last several centuries are discussed below.

Historical References to Jenne. The small amount of information available concerning the history of the Jenné region is found in three categories of written documentation as well as in oral traditions. The authors of the written documentation are medieval Arab historians and geographers, of North African or Iberian origins; sub-Saharan African historians, writing in Arabic; and European travelers, merchants, cartographers, bureaucrats, and military men. Three works--Prussin (1973), S. McIntosh and R. McIntosh (1980, 1:41-59), and R. McIntosh and S. McIntosh (1981) contain lengthy synopses and excerpts of the references to Jenné in this literature. The points most salient to the present study follow.

The known oral traditions for Jenné as a city are not numerous; nearly all groups there, ethnic and otherwise, have active oral traditions, but few exist for the city as a whole (S. McIntosh 1979). Three literary sources contain most of what is recorded of Jenné’s oral traditions: the Ta'rikh es-Sudan (as-Sa'di 1964 [1900]), a history written by an African scholar in the 17th century, Charles Monteil's (1903) Monographie de Djenng, and Maurice Delafosse's (1972 [1912]) Haut-Sénégal-Niger (S. McIntosh 1979:94). Four respondents in Jenné, two of whom had read Monteil's monograph, were interviewed in 1977 about oral traditions (ibid.:94-5). One of the unanimous points in the traditions is that Jenné was founded on the site now identified as Jenné-jeno ('old Jenné'), although several dates, including the 8th century, are given for its founding and the purported move to the present site of Jenné (as-Sa'di 1964 [1900]:23, Monteil 1971 [1932]:32). The scholarly use of African oral traditions has been well developed in the literature (e.g., Vansina 1965, 1972; Bird 1971, J. Miller 1980; Schmidt 1990). In all cases where oral traditions are mentioned herein, particularly as they pertain to the history of artisans in the area, they are used foremost to convey the respondents' sentiments about the subjects of the traditions, not necessarily to represent historical 'facts'.

Information collected by S. McIntosh and R. McIntosh in 1977 (1980, 1:53) from interviews in Jenné included the telling of several conquests of the town. These traditions hold that Jenné came under the rule of the Mali empire in 1325, and the Songhai empire in 1468, after a prolonged siege. When the Songhai were subsequently defeated by the Moroccans in 1591, the traditions maintain that Jenné was the first town to come under their control, although the Songhai remained relatively autonomous under Moroccan rule through the 17th century (ibid.; as-Sa'di 1964 [1900]; S. McIntosh 1995:13).

Although Arabic language written sources have been used widely for reconstructing the history of the Western Sudan from about A.D. 1000 (Connah 1987:102), Jenné is not mentioned in them until the late 15th century. The city is
named in a letter written by the Moroccan al-Maghili to the ruler of the Songhai Empire, Askia Mohammad, between 1493 and 1496 (Cuq 1975:430). From the letter, we know that Jenn6 was urban and inhabited by non-Muslims at that time. The absence of references to Jenn6 prior to the 15th century has puzzled researchers, and a number of reasons have been postulated to explain it. These include poor recording or translation of the early travelers' itineraries, and a lack of documentation by those who were most likely to have had regular contact with Jenn6. Omission of references to Jenn6 (or Jenn6-jeno) by outsiders may also represent efforts to downplay its stature, because of its rulers' and population's adherence to indigenous African religions longer than centers further north, or to protect its trade routes to and from southern gold-producing areas. Based on what is now known of the region archaeologically, however, it is unlikely that the absence of citations was due to Jenn's lack of stature in regional or trans-Saharan commerce (S. McIntosh 1979:72-76, 87-88).

The first naming of Jenn6 in a European text is almost 50 years earlier than al-Maghili's late-15th-century letter, and contains some description of Jenn6. The author was an Italian merchant, Antonio Malfante, who refers to 'Geni' and other places in a letter written in Algeria in 1447. He refers to it as a 'black civitate' (Latin, city or city-state; Crone 1937:87-88), and mentions the annual inundation of the floodplain, lively boat trade, commerce in gold, and the non-Muslim population. Three more detailed sources exist from the first two decades of the 16th century- two by Portuguese sailors (Fernandes 1938, Pereira 1937) who seem to have heard of Jenn6 through contacts on the West African coast, and one by the African traveler and scholar Leo Africanus (1896). At least the former two, and possibly all three of these accounts are second-hand, as was Malfante's. Details of the gold trade are found in their accounts, as well as descriptions of Jenn6 mentioning its city wall, commercial wealth, commercial and political influence that extended for hundreds of miles, and an active trade in barley, rice, cattle, fish, cotton and metals (Bovill 1968:148).

The histories, or ta'rikhs (Ar.), written by African scholars in Arabic language are most useful for the period between the 10th and 17th centuries (Connah 1987:102). Ta'rikhs can be anything from a major historical work to a family's own genealogy and traditions. Three major ta'rikhs provide researchers with much of what is known about the political history of the Niger Bend, although that history remains thin. The Ta'rikh al-Fettach, a composite work written in Timbuktu over several decades and finished in 1665 (Kati et al. 1964 [1913]), outlines the political history of the late Songhai Empire of the Niger Bend right before its conquest by the Moroccans, and contains passing references to Jenn6's powerful commercial influence. This work also contains specific references to large groups of artisans including blacksmiths and masons, although these passages were probably not part of the original document (Levtzion 1971). The Tadhkirat an-Nisyan, a bibliographic dictionary written anonymously in the mid-18th century, concentrates on the Pachalik (Ar.), or Moroccan rule by pashas, of the Niger Bend, but it confirms the commercial primacy of Jenn6 during the Songhai empire (Abitbol 1979:13).
The Ta'rikh es-Sudan, completed by the Muslim scholar and imam as-Sa'di in 1655, concerns a wider area of the Western Sudan than just the Niger Bend (usually considered the area between Timbuktu and Gao, but it may also include the area as far upstream as Jenn6). Of the three works, Sudan contains first-hand descriptions of Jenn6, where the author lived for at least a decade. His descriptions are consistent with the basic picture gleaned from the other works. He writes of an important market, an encircling wall with numerous gates, a palace and mosque, and a densely populated rural area with abundant agricultural yields (as-Sa'di 1964 [1900]:22-25). These sources suggest that Jenn6 was geographically peripheral to, but an important commercial center in, at least two of the three major empires that rose in West Africa, Mali (ca. A.D. 11th-15th centuries) and Songhai (ca. 11th-16th centuries). In each case it appears that Jenn6's role was chiefly as a market and, significantly, an artisan center, whose products included pottery, jewelry, iron goods, woven materials, and a spectacular architectural style, all of which were exported throughout the Inland Niger Delta and adjacent lands. It exported its own agricultural surplus goods north to Timbuktu, whence they were further transported into Saharan trading towns. Goods were imported and bulked in Jenn6 after coming in from the desert for export to the south, and vice versa—Saharan salt and other minerals, for example, were traded for forest and savannah products such as gold, ivory, kola nuts, civet, gum, and slaves. From the 10th century at the latest, until the end of the 17th, the regions of Jenn and Timbuktu were tied together in their domination of the trans-Saharan trade routes. Although archaeological evidence shows population shifts by early in this period that may indicate the population in the vicinity of Jenn6 was diminishing, Jenn6 itself flourished commercially in those centuries. Its hinterland, whatever the population dynamics therein, was producing abundant amounts of riverine, pastoral, and agricultural products as well. Having developed and thrived primarily on agricultural richness, intraregional trade, and craft production, the trans-Saharan trade that brought Jenn6 into the international sphere in the Middle Ages was actually grafted onto centuries-old, indigenous trade networks (S. McIntosh and R. McIntosh 1980, S. McIntosh 1995, R. McIntosh 1998).

The 19th- and early 20th-century literature about Jenn6 is not abundant, and no focused history of the city has been written, but what is available from the 19th century onward provides a fuller picture than could the earlier sources. Although evocative, they have tended to be cited, to the present, as still-authoritative works on the region and its people (Cailli6 1830, 1968 [1830]; Delafosse 1972 [1912]; C. Monteil 1903, 1971 [1932]), despite the potential transformations over the last century and a half. Certainly they provide insight, however incomplete, about the times in which they were written. In 1830 the French explorer Ren6 Cailli6 (1799-1838) published the first western view of the city in a long, detailed account of his four years of travels (Cailli6 1830, 1968 [1830]). His time in Jenn6 fell during the reign of Sheku Amadu, the Fulani religious reformer who wrested power from the Moroccans and unified
much of the Inland Delta under Muslim law beginning in 1810-11. Sheku Amadu
did not rule from Jenné (his capital, Hamdullahi, was about 50km north, near
Sofara; see Brown 1969, Mayor 1997) but his natal village is only a few
kilometers from Jenné, and the city and its vicinity were affected profoundly by
his rule. A major change wrought by Sheku Amadu was the forced settlement of
Fulani pastoralists and Bozo fishers, people who normally lived in transhumant
campments, into permanent villages where their descendants remain today. He
also settled many Fulani in permanent homes in Jenné itself, and incited Islamic
fervor in Jenné by razing the original 13th-century mosque, and building one that
reflected his idea of Islamic purity on a different site in town (Brown 1969,
Bourgeois 1987).

Most of what Caillié (1968 [1830]:428) writes about Jenné, which he termed a
"little kingdom," concerned Jenné's commercial activities. He commented
particularly on Jenné's extraordinarily well-stocked market, its centrality in the
slave trade, and the end of the city's role as a center of gold trading activities, due
to warring between the Fulani of the Delta and the Bambara kingdom of Segou,
south of the Delta (ibid.:458, S. McIntosh 1979:85). Jenné's trade in foodstuffs
remained critical to the region in this period, especially with Timbuktu and
Saharan towns north of it.

No European wrote about Jenné based on eyewitness accounts between the time
of Caillié and the French invasion in the last decade of the 19th century (S.
McIntosh 1979:86). During those years, however, we know of the end of Sheku
Amadu's theocracy in 1862,

which was toppled by the invasion of the Tukolor under their leader el-Hajj Omar.
Jenné stayed under Tukolor hegemony until a protracted French military siege,
led by Colonel Archinard, resulted in the town's capitulation in April 1893.

The most complete and accessible work on Jenné itself following that event is
Charles Monteil's Djenné: Une Cit Soudanaise (1971 [1932]), based on his
experience in Jenné at the turn of the century. Monteil's eye for quotidian detail is
valuable for what it tells us about the city and hinterland during his tenure, and
includes some information about the artisan industries, discussed below, that he
deems the most developed in the area. He describes Jenné at that time as a
powerful metropolis, a manufacturing and distribution center, and the key to the
economy of the entire region (C. Monteil 1903:215,232).

The French abolition of slavery had great impact on the region's economy,
including that of Jenné. French interests in the area led to their construction of the
city of Mopti at the site of a village at the confluence of the Niger and Bani rivers,
to be the premier commercial center and port of the Middle Niger. A hundred
kilometers north of Jenné, Mopti's location at the junction of the rivers, and its
year-round road access, by way of a long, well-constructed dike off the main
north-south route in what is now the Republic of Mali, made it a superior
transport and communication center for the needs of the time, and it continues to
function in this capacity (B. Gardi 1983), despite its own depressed urban
economy (HartsBroekhuis 1997). In the late 1980s Mopti had a population of over
60,000 (Imperato 1989). In the 20th century, Jenné has maintained prominence as
an administrative center, religious center, showplace for traditional architecture,
tourist destination, and a market center with influence in its surrounding region. Other nearby towns, such as Sofara (pop. 4,852; Imperato 1986), although smaller than Jenn6, are located closer to the modem main road system and have become more active market centers, with access to more goods than Jenn6 because of general ease of transport. Jeune in 1983

The Urban Setting. Jenn6 occupies an area of about 60ha and sits high on a mound of cultural deposits with a variable height up to about six meters above the floodplain. In 1983 the population was estimated to be between 9,000 and 11,000 people. The center of public activity in Jenn6 is an open space where the regional market is held each Monday. Onto this plaza face the mosque, permanent shops, the rectangular enclosure for the daily food market, and most of the other government buildings; those that do not face this plaza, such as the school, are still close by in the central part of town. The open area divides the city into halves with marked characteristics: to the east lie the older, densely-packed neighborhoods with mostly two-story buildings, and to the west, less densely-packed, single-storied structures predominate. To the west also lie the newest neighborhoods in Jenn6, where the topography allows for expansion onto elevations in the floodplain. The city's buildings (2,300 in 1982, van Gijn 1986:163) are rectilinear and mostly made of sun-dried mudbricks faced with clayey plaster, some of which is fortified by a small amount of cement. Jenn6 has been admired in the west since the colonial period for its visual elegance (see B. Gardi et al. 1995 for views of Jenn6 in the late 19th century; also Maas and Mommersteeg 1992, Bedaux and van der Waals 1994). Its architectural integrity is protected and controlled by the contemporary Malian government. The ‘Sudanese’ architectural style for which Jenn6 is best known (Prussin 1973, Maas and Mommersteeg 1992) is concentrated in the eastern part of the city (van Gijn 1986:164-165), although some examples occur in the western half and the celebrated 20th-century mosque is in the center. The domestic version of this style is characterized by two-storied mudbrick buildings with uniform floorplans arranged around courtyards, bearing facades decorated with symbolic male and female forms, and often with Moroccan-style wooden latticework shutters and nail-studded doors (Prussin 1973, van Gijn 1986:167-176, Maas and Mommersteeg 1992). In the western part of Jenn6, most houses are single-storied, built around courtyards, and lack the Sudanese motifs (van Gijn 1986). The dirt roads in the western half are wide enough to allow vehicles to pass, something not feasible in most of the winding alleys common in the eastern part, used by pedestrians, donkey-carts, bicycles, and motorbikes. Jenn6 is located approximately 40km due south of the Niger River, and 7km north of the Bani River. Although not lying on either, it has easy connections to both rivers by way of seasonally inundated channels, called marigots (Fr.), that crisscross the Inland Niger Delta. The waterways, vital to transportation and communication, also provide resources that support two major fishing groups, the Bozo and Somono. The Sahel, and areas south and west that provide catchment
for the rainfall that later determines the extent of the rivers' flooding, have suffered from generally decreased precipitation over the last centuries (Brooks 1985), despite some periods of climatic amelioration (Nicholson 1980). Use of the network of waterways helped make Jenné a commercial capital, a central depot and transshipping point for local agricultural goods bound north to Timbuktu (Bovill 1968), and for goods that would be further shipped from Timbuktu across the desert, or south to the savannah and forest zones. Beyond a doubt, this network contributed greatly to Jenné-jeno's original growth, allowing transportation and communication throughout the region as well as providing natural irrigation for agriculture and pasturage. The decreased rainfall and shorter season of flooding thus reduce Jenné's reliability as a center for distributing and accessing--even locally--goods and services. This has affected the artisans to varying degrees. When flooded, the waterways remain the most efficient way for people to move themselves and goods in and out of Jenné and throughout the Inland Delta, and thus these periods are the ones of greatest intersettlement activity. It is also significant that most land transport involved in commerce is motorized, requiring fuel expenditures, whereas boats can be powered by human energy, though many larger ones use small outboard engines. Jenné's once choice location--clearly one of its greatest assets throughout its early and more recent history--has thus become a liability due to the constant threat of inadequate flooding and local rainfall.

In 1983, no public source of electricity existed in Jenné, although this is no longer the case (S. McIntosh, pers. comm., April 1999). During the period of this study, the post office had a telegraph and a radio used to communicate with other centers, but no direct phone line out of town. Mail arrived only on Sunday; representatives from the area villages collected it on Monday, market day. The post office and a cluster of government buildings near it were electrified a few hours a day with a generator, as needed, as were several residences of governing officials, most of which were located southwest of town on another small settlement mound. In 1983 two or three households owned generators, used for lighting and occasionally for refrigeration of one shop's supply of cold drinks, but the city was not electrified. A shop ran electricity to the mosque, lighting the cavernous, 99-column-filled interior with a single bulb and the exterior facade with three. Until 1981 the only water sources in town were the marigot and wells, the latter mostly open but some capped with hand pumps, located in courtyards and in scattered public places. All houses in Jenné had latrine facilities, that while essential for serving the urban population, resulted in the deposition of sewage which compromised the integrity of the groundwater feeding the shallower wells. In 1981 a Canadian development project installed a system of deep wells with a gas-powered pump system, providing an uncontaminated water source. People were charged a small amount for each bucket of clean water they drew, so most residents used this sparingly, and continued to use the well-water for bathing, and sometimes for cooking and drinking. In 1999, some houses have spigots in their courtyards (S. McIntosh, pers. comm., April 1999), but most people still obtain water from the public sources.
To gain access to Jenn6 by car or truck from the other major towns in Mali, one leaves the main road running roughly southwest-northeast from Bamako to Mopti, passing Segou and San, until reaching the turnoff to Jenn6. In the early 1980s the road to Jenn6 was still single-lane, 30km long, and ran across the top of an earthen dike that traversed the floodplain, until it reached the Bani River. Today that road is paved (S. McIntosh, pers. comm., April 1999). At the Bani, two to three vehicles at a time can be loaded onto a small ferry, which is then poled across the river (or powered with a small outboard engine in the few weeks or months when the water is too deep), to the western bank (S. McIntosh, pers. comm., August 1999). One then proceeds the 6km across more floodplain and over a shorter dike and bridge into Jenn6. This shorter road also is now paved, although it was not in 1983. In the other directions, reaching out into the hinterland around town, there were no true roads, but paths taken by vehicles across the floodplain in the absence of water. When not by boat, traffic into Jenn6 from the countryside trickles on foot, motorbike, or donkey cart, although a small number of trucks make predictable rounds moving goods and people, in harmony with village markets.

The City Dwellers. In the early 1980s, about 30% of Jenn6's working population (those above 15 years old) was engaged in the primary sector: agriculture, pastoralism, and/or fishing. Another 40% of the active population worked in the secondary sector. Most of these people were involved in artisanry, including those whose specializations were in serious decline, such as handembroiderers, tanners, and dyers. Others maintained a vital role in the production of material culture but were experiencing hardships economically, including the blacksmiths, potters, and masons. Persons involved in newer trades, including repairers of motorbikes, watches, and radios, were thriving (Harts-Broekhuis et al. 1980:10-12).

The remaining 30% of the working population was involved in various tertiary functions, including bureaucratic positions with the government, maraboutage (Fr., teaching the Koran and performing the other activities of a marabout, or Koranic scholar), transportation, and commerce (ibid., 14-15). Significantly, although only 30% of Jenn6's population was engaged primarily in food production (a high percentage for cities in general, but not for small urban centers located in rural settings), a large proportion of the other 70% was also planting at least several hectares of grain, or was engaged in other kinds of food production. Marabouts, for example, had fields and employed their Koranic students in them in exchange for room, board, and lessons. The sector of the population least involved with food production comprised those people who came to Jenn6 in bureaucratic positions, who had little desire to take part in agriculture, and whose salaries and other income permitted them to buy their food. Affluent merchants were able to purchase food, especially grain. Although they maintained rights to their fields, some lent their use to others, mostly family members, who might depend more heavily on what they could grow themselves. Despite secondary or tertiary economic activities, many people remained engaged in food production, because of the general insolvency that permeated the economy.
The majority of Jenn6’s population comprises members of ten or so ethnic groups, the largest of which are the Marka, Songhai, Bozo, Fulani, and Bambara. This was true in the 1980s and continues to be the case. Members of these groups identify with a language, a religious tradition, origin myths, and usually a predictable subsistence strategy or a complex of strategies (De Vos 1975:9-10). These groups live side-by-side throughout Jenn6 and in the region, and although concentrations of families from single groups occur in various parts of the city, nearly all of the neighborhoods constitute a mix of ethnic elements. Group boundaries are maintained through an ideal of endogamy, and an ideal of maintaining distinctions among them such as language, yet intermarriage is not uncommon, as would be expected in such a multiethnic society (Bentley 1987, Romanucci-Ross and DeVos 1995). The intense ethnic and other pluralities in Jenn6 and its hinterland are long-standing, and the alliances and arrangements between groups are complex and elegant (see e.g., Gallais 1967, R. McIntosh 1998). The patterns of intermarriage relevant to this study are explored further below.

In addition to those people who identify themselves with the larger, major ethnicities, other people consider themselves, and are considered by others, to exist in interstitial groups. The RimaiBe, for example, were once the enslaved agricultural workers of the pastoral Fulani (see e.g., R. McIntosh 1998:106-7), and though they have remained in a patron-client relationship with them, officially have been free farmers since the 1890s. In another example, the Somono fishers and farmers were brought together as a servile group under the Bambara over five centuries ago (Roberts 1987). Rimalbe and Somono are distinct social entities in Jenn6 and the vicinity at present. Although their members, too, identify with a common language, religion, traditions about their past, and one or more economic strategies, locally they bear the stigma of serving others in the remembered past. Without entering a debate on the definition of ethnicity, suffice it to say that these groups operate at a level of social ascription comparable to that of the major ethnic groups in Jenn6, and for the purposes of this study, are treated as such, although status differences play a role in this study. Ethnyms in use by people in Jenn6 are the ones I use, despite the slippage between their use on the ground and the way they are sometimes defined in the literature.

There are yet other groups of people whose social exclusivity cannot be defined in ethnic terms. One such category, whose members normally did not participate in food production even under the economic pressures of the 1980s, was that of the griots. Griots are characterized generally as a highly endogamous population of male and female bards or oral historians, of ambiguous social status, present in nearly all societies of the Western Sudan. They provide services including marriage-arranging and other forms of mediation, circumcising of boys and girls, and in some cases, craft production. In Jenn they received most of their food from patrons. Although they are not considered fully integrated members of the various ethnic groups among whom they live, they speak the language, and adopt many of the other cultural characteristics, of specific groups. In Jenn they are calledjeligw in
Bambara, nyeenyBe in Fulfulde, and horso in Songhai (see Tamari 1991, 1995; LaViolette 1995; Hoffman 1995; Frank 1998). In this work, I will use the western term griots when I refer to all the subgroups collectively, as people in Jenn6, griot and not, used the term when speaking French. I use the more linguistically specific terms where appropriate; those terms can be further subdivided, as I indicate in later chapters.

Griots comprise the social groups in Jenn6 that observe endogamy the most keenly. They and others in similar situations are often referred to as members of 'castes' in the literature (e.g., Tamari 1991, 1995), although I do not employ that term in this study. Being jeliw, nyeenyBe, or horso is an ascription assigned at birth, although how those with that identity earn a living varies widely, potential marriage partners are more numerous than would be expected, and individual status within the community is based on many criteria. Griots who associate primarily with different ethnic groups intermarry, and a griot may serve multiple families, from any number of ethnic groups. Those who served the Songhai and Bozo, for example, frequently intermarried. Most of the griots associated with the Fulani were artisans, and these Fulfulde-speakers were more endogamous than many others (LaViolette 1995). They are eligible for substantial food and other gifts from their patrons, and may also expect gifts at ceremonies in which family wealth and stature is on display, such as weddings, funerals, circumcisions, and during harvesting activities.

No single ethnic or other local group holds the political power in Jenn6 officially, although the Songhai have a preeminent urban prestige in the Inland Niger Delta for historical reasons. Political power lies in the hands of the central government of Mali, which has been a sovereign state since 1960. The local representatives of the central government control the city and the region. Many of the officials in Jenn6 were Bambara in the period of this study. Although Bambara-speakers are the most numerous linguistic group in Mali, Bambara born and raised in the Middle Niger--away from their highest concentrations, in more southerly regions--tend to be of low status in the Jenn6 ethnic hierarchies. Most of those who have converted to a world religion have chosen Christianity, which sets them apart from the dominant Muslim population, and they thus have a smaller stake in Jenn6's urban culture, although they are active in the hinterland. The Marka, the Songhai, and the Fulani are the strongest groups economically, and that wealth has social manifestations. Ethnicity and social class in Jenn6 are related, although the social classes are ethnically diverse and within each ethnic group there is stratification based on wealth, power, and other criteria (Van den Berghe, cited in Young 1986:119; R. Cohen 1978:393). There are thus multiple principles of hierarchy at work, including one based on wealth, and one on social ascription according to ethnic and other affiliations.

Mande and Mande-influenced societies, including that in Jenn6, have an organizing principle important to the present research. Mande-speaking people are found in virtually every West African state south of Algeria and west of Ghana (Conrad and Frank 1995a). Mande speakers share a sense of their own history and a set of cultural practices that have come to be considered normative, but not
exclusively so, in many West African societies. Beginning in the early 19th century, Mande societies were codified by western observers as stratified hierarchically into three tiers (e.g., Caillié 1968 [1830]; Monteil 1903, 1971 [1932]). In the early 1980s, the late-19th-century model of Mande society had not been questioned or modified significantly, despite some ethnographic and human-geographic work in the area (e.g., Gallais 1967); in the last few years, however, the model has been problematized and historicized increasingly (Conrad and Frank 1995a, b). It is useful to summarize that model here as a starting point, because it resonates for many Mande-speakers, including those in Jenn6; although perhaps oversimplified in its older ethnographic renderings, it is not without historical and social meaning (see Hopkins 1974). In this model, people involved full-time in subsistence comprise the horonw (Bambara), or nobles (Fr.), the uppermost and largest stratum of Mande society. The middle stratum is smaller, comprising the nyamakalaw: artisans and others who produce goods or perform services apart from those involving food, although they are not always excluded from food production. The lowest stratum was occupied by slaves historically, the jonnw, and in contemporary Mande societies, is associated with people of slave ancestry, some of whom are involved in craft production.

In Jenn6 in the 1980s, the Mande model remained relevant to understanding one set of relationships between people; it was only part of the story, as models always are, and many members of Middle Niger society are not Mande (such as the Fulani, and Songhai), and bring competing cultural models into the mix. One of the biggest challenges in carrying out this study was stepping outside the Mande social model as it was presented in the literature. Virtually unchanged and unelaborated since the 1890s at the time of my field work, it placed all artisans in a single category, something I worked hard to reconfigure, while not ignoring its relevance to some groups. Generally, individuals need not be involved only in subsistence--horonw--to be of high status; commercial success, Muslim piety, and personal attributes influence public stature greatly. Masons are not nyamakalaw. People descended from slaves intermarry with people of ‘free’ heritage, and accumulate wealth and status. Many artisans derive status in ways comparable to farmers, merchants, and bureaucrats. If they are griots, such as some of the Jenn6 potters, leather workers, and goldsmiths; if they are blacksmiths, or numuw (Bambara), or the potters married to numuw, called numumusow; or if they are the specialized leather workers who are descended from invading North African groups centuries ago, they are of markedly different social statuses. Chapters 4 through 8 contain further comments on the role and status of artisans within Jenn6 society.

Jenn6 and its Hinterland. Mali is divided into eight administrative regions (Fr.), themselves subdivided into cercles (Fr.). Jenn6 is located in the region of Mopti, which covers much of the Inland Niger Delta. The city of Mopti is the regional capital and a major commercial center in Mali. Jenn6 is the largest settlement in one of eight cercles in the region, called the cercle of Jenn6, which had 118,580, or about 10%, of the total 1,129,041 inhabitants in the Mopti region in the mid-
1970s (1976 National Census, quoted in Imperato 1986:48-49). The cercle of Jenn covers approximately 4,500km sq. (ibid., 130), and is further divided into six arrondissements (Fr.), of which the settlement of Jenn6 is the arrondissement central. As of 1983, Jenn6 provided a number of services to its region, including some small shops, a post office, health clinic, hostel and restaurant, pharmacy, maternity facility, courthouse, government school through the ninth grade, sports complex and a government-sponsored grain warehouse and distribution center. Most of these received use by the people of Jenn6 primarily, and by fewer than 5% of the villagers in the cercle (R. Maassen, pers. comm., January, 1983). There is also a daily food market (frequented mostly by Jenn6 residents), and a weekly Monday market attended by villagers from all over the region. At the Monday market vendors who come to town Sunday night set up kiosks with a wide range of imported goods, including plastic and metal wares, small electronics, and used and new clothing, in addition to food and a full range of goods made in Jenn6 and in surrounding villages. Jenn6 is the principal center of Islam in Mali, by virtue of its celebrated mosque and hundreds of marabouts, who also act as mediators and historians (V Monteil 1964:121-148), and its easier accessibility than Timbuktu, another major center of Islam. The marabouts draw students from distances of hundreds of kilometers.

The Environment of the Middle Niger

Jenn6 lies in the Inland Niger Delta, which itself lies in the Sahel, a semi-arid climatic zone that stretches from Senegal and Mauritania on the west, across parts of Mali, Burkina Faso, Niger, Chad, Sudan, Ethiopia, Somalia, and Kenya in the east. The zone immediately north of the Sahel is desert (less than 100mm of rainfall per annum), and south of it in the upper half of the continent is a band of savannah, with its mixed grasslands and woodlands and annual rainfall between 600-1200mm, depending on the latitude. Along the southern West African coast is a small forest zone with rainfall above 1,200mm. The Sahel is characterized by hot, dry weather and receives between 100 and 500mm of rainfall per annum. The Inland Niger Delta is a unique environment within the Sahel, subject to amounts of rainfall within the range for the Sahel in general, but much more dependent upon the floodwaters from the Niger and Bani rivers, which increase greatly the food-producing potential of the land.

The Inland Niger Delta ideally has five climatic seasons, as opposed to the remainder of the Sahel that has but a wet and dry season. The five are: the rainy season, the wet season or crue (Fr.), the cool season or winter, the recession of the waters or decrue (Fr.), and the hot season (Gallais 1967, 1:73-76; R. McIntosh 1979:157-165). The rainy season falls between June and mid-September, with the heaviest rains falling in July and August. The first tentative rains soften the earth and allow farmers to begin hoeing and planting. When they are sure that steady rains are imminent, farmers plant their cereals--rice on the clayey, low-lying land, pearl millet in the higher, sandier soil, and sorghum on the edges of the floodplain. Millet needs heavy rain shortly after planting, and sorghum can be inundated but only for a brief period. Rice is the only crop that needs long-term inundation (Galloy et al. 1963:70-75).
The wet season, or crue, falls between October and November. Rainfall and subsequent drainage from the Fouta Jalon highlands of Guinea, 800km upriver, and the Futa Toro highlands of the Crte D'Ivoire at an equal distance, cause the Niger and Bani to flood their banks beginning in October or so in the southern Inland Niger Delta. The floodwater then stands in the marigots and in the low-lying rice fields for several months, and recedes gradually until most of it, except in a few marigots, disappears in either March, April, or May. Floating rice (indigenously domesticated Oryza glaberrima), after the early rains have enabled it to sprout, needs timely flooding of the fields at a rate that corresponds to the growth of the rice itself in order for it to live and yield. Ultimately this rice requires at least a meter and a half of standing water to grow. Fish also abound in this period (several of the major species feed on the rice), making it a busy one for the Bozo and Somono groups who do most of the fishing in this area. The flooding assists tremendously in transportation, because the interconnected marigots make it possible to reach nearly every village in the cercle by boat with ease, unlike the situation in the drier seasons.

The winter follows, from late November until the end of January. The harvests take place in this period characterized by cooler temperatures. Although much of the water has receded, many marigots will still be passable by boat, and land transportation begins to increase. Marketing thrives during this period, because farmers and others know how much of their yield they will be able to sell or trade; this is also a busy time for artisans, whose goods can be exchanged directly for measures of grain.

The decrue falls in February and March, marked by a steep rise in temperature, drying of the fields, and emptying of most of the marigots. The hot season follows, in April, May, and June. The hot season, with temperatures often reaching 120 degrees Farenheit, is made more uncomfortable by dust storms blowing in from the Sahara, and in the drought years, by a desperate waiting for the first rains that occur normally in June. The bad years of the 1980s were characterized by late and sporadic first rains, followed by light and sporadic rains through July and August. In 1983, weeks that under the best conditions would have seen five out of seven days of rain, were receiving an hour or two of rain total. Many of the marigots never flooded, and most of the low-lying rice fields never received water. The rice sprouted, but died only a few inches tall. The millet and some sorghum sprouted, but insufficient rains resulted in yields too low to feed families for the entire year. Without internationally-donated rice and maize, families would have had nothing to buy, and without money sent in from distant relatives, there would have been nothing with which to buy the grain.

The Sahel has been experiencing drought conditions since the late 1960s, with the worst years falling in the early 1970s and mid-1980s. This is not the only drought in recent memory; adults in Jenn6 recalled similarly dire conditions in the 1920s. The last decade and a half, however, is a much longer siege, depleting more of the stores with which farmers and pastoralists protect themselves. Diminished rains in the highlands that feed the upper Niger have led to an inadequate inundation of
the floodplain, devastating the wet rice harvests upon which much of the population depends. Rainfall directly onto the southern Delta in the region of Jenn6 has been adequate for some millet and sorghum harvests, but the rice, with its required combination of early rainfall for sprouting and gradual and sustained inundation, has suffered the most. The agricultural fecundity of the area, enough for commercialization of grain and its export north to Timbuktu for centuries, and in more recent years throughout a desiccating Sahel, has been severely diminished. Not all the years in the last two decades have been disastrous, but even in the better ones, pre-drought levels of production, especially of rice, have rarely been reached. The results include widespread grain shortages, an end to commercialization from this area during many of these years, and the import of large shipments of U.S. and European cereals. Pastoralism has also suffered severely. The major pastoralists, the Fulani, have moved their surviving herds out of this area of the Delta for much of the year, resulting in reduced availability of milk, fertilization of farmland by the livestock, and a reduction in available dung for fuel. In the early 1980s, those who owned only a few oxen for traction purposes suffered the decimation of their stock due to starvation, thirst, and physical injury from overworking the weakened survivors. Over the past two millennia, the hundreds of thousands of people the area supported agriculturally and pastorally have contributed to deforestation and overgrazing, and both have exacerbated desiccation and erosion of topsoil in the Sahel. Craft production has contributed to this problem. Haaland (1980) demonstrated for the Mema region the scale of deforestation that might have resulted from charcoal production in support of iron smelting and smithing alone during the Empire of Ghana. Haaland also suggested that deforestation, and related environmental deterioration, may have weakened the kingdom of Ghana politically (1980:31). Goucher (1981) discussed the role of charcoal production for iron smelting in environmental degradation of the West African forest zone, as well as the role of European colonial policy in environmental abuse (see also Schmidt 1997:264-303 concerning landscape transformation in Uganda since the Early Iron Age). Although the Inland Niger Delta has remained resilient and productive in spite of its own deforestation, the latter will clearly continue to be a problem. The effects of the drought-stricken years on the economy, including on craft production, were widespread, but Jenn6 itself suffered less than many of the villages that did not have the commercial activity, small but steady trickle of tourism, and concentrations of wealth that the urban center did, and does. Nevertheless, curtailment of grain commercialization left the Jenn6 hinterland with little cash flow, and limited the amount of grain to exchange for the goods of specialists. Reduced purchasing from artisans and from merchants in general prompted many of the former to diversify their subsistence and income bases. Most of the artisans appear to have maintained some level of their own food production even in the years prior to the 1970s. In the drought years, those artisans who had fields but did not always plant them (many fields are lent indefinitely by their current holders to those who need them more) began planting them again if they were well situated to receive water. Also, artisans who had
been making good profits by working mainly in Jenn6 and planting a few fields increased their dealings with villagers, a decision that stressed village artisans and increased competition between urban ones. Most families in Jenn6 continued to manage, aided in many cases by adult male children who emigrated to Côte d'Ivoire and Burkina Faso in particular to find employment that would allow them to send money home. This pattern is not in any way exclusive to the modern period, to Jenn6, or to, Mali, but it was of great importance to many Jenn6 (and rural) families in 1983.

Chapter 3: Methodology
Research Questions
I used six major questions in directing the present research in 1981 and 1983. The first four address the general query: How is craft production organized and conducted in Jenn6 and its hinterland? These four questions range from the material to the social, and are as follows:
1) How are raw and other materials for craft production acquired by artisan and transformed into finished products—what is the chaine opératoire? And by what processes do finished products reach consumers? For archaeological consideration, what are the material correlates of the manufacturing and marketing systems of artisans?
2) Given the processes of distribution referred to in 1), what roles do artisans play, whether as a by-product of manufacturing and marketing or not, in integrating urban-hinterland material culture, economy, and society? What roles do artisans play among villages, without involving the larger community of Jenn6?
3) How do artisans control access to their specialized knowledge? This control has two components, because other artisans as well as clients are a potential threat to it. The two parts of the question, therefore, are: What are the ways in which artisans control the size and quality of their group membership, and how do they protect their own market interests?
4) Who are the artisans, and what is the social context of specialized craft production? Does ethnic background, or membership in particular social groups, limit or otherwise affect membership in artisan groups? And conversely, are craft producers socially bounded, and in what ways? Do their crafts affect the nature of artisans' membership in particular social or ethnic groups?

The issues indicated by the first four questions were the primary focus of research, but I was also concerned with the relevance of the data to the archaeological record as we currently understand it. For this I was guided by two final questions:
5) In what ways would these artisan groups, specifically the blacksmiths, potters, and masons, manifest themselves in the archaeological record? Which aspects of the archaeological record as it pertains to craft production have no apparent correlates in artisanry as it existed in 1983? With ample funding and time, how would one go about looking for evidence of craft production, as it is now organized, in the archaeological record?
6) What would one have to find in the archaeological
record to demonstrate that the producers in the Iron Age were not organized as groups of specialists in ways comparable to how they were in 1983?

Fieldwork History and Methods

I acquired the ethnographic information for this study through a combination of short- and long-term interviews and observations in Jenn6 and also in other settlements with cultural and economic ties to Jenn. I visited Mali for the first time in 1981 while acting as an archaeological field supervisor at Jenn6-jeno during the second season of excavations there, directed by R. McIntosh and S. McIntosh. The first four months of that six-month field season were organized around these archaeological responsibilities, but in this period I made contacts in Jenn6 with people who introduced me to artisans and well-known individuals with whom I wanted to work. Much public interest was trained on the archaeology we were conducting, so meeting people was not difficult.

I worked exclusively on developing the foundation of this project during the final two months of the 1981 field season. I interviewed prominent artisans and discussed the feasibility of my study with local officials whose cooperation was necessary. During this period I decided that my research should be limited to the intensive study of three particular craft groups: the masons, who were the most highly visible, numerous, and rigidly organized of the groups; the blacksmiths—iron forgers—whose craft, along with iron smelting, has been in the area from the first evidence of human occupation ca. 300 B.C., and the potters, who in many ways the female counterparts of the blacksmiths, are married to them, and whose products have an equally long tenure in the southern Inland Niger Delta.

The artisan population in Jenn is highly diverse. Certainly the most organized and public of the artisan groups is that of the masons, who numbered nearly one hundred in 1983, are paid fixed salaries, have formalized apprenticeships and monthly meetings, and are similar to a European or Islamic guild. At the time I chose the groups for the study, I thought the blacksmiths and potters to be the antithesis of the masons: kin-based in structure, paid on a lower scale, and of an ambiguous social status. According to the literature available at that time, the blacksmiths and potters were an endogamous group, as opposed to the masons who were not endogamous and were apparently of higher status. The masons, therefore, appeared to provide a good comparison to the blacksmiths and potters.

Although the comparison remains a good and productive one, my research led me to see additional models of craft groups operating in Jenn6, as well as incorrect assumptions concerning those I chose.

The first step in the fieldwork of the second season (January-December, 1983) was to define all the artisan groups in Jenn6 with respect to size and composition of each group, and to locate the artisans’ homes and workshops in the town. I accomplished this for some groups quite easily by asking the people with whom I lived where various artisans were located, and then followed up with visits to the artisans. The most difficult group to find and define was the masons. The masons are more numerous than any other single group of artisans, and due to the nature of their work they are rarely in their homes. This latter characteristic distinguishes them from nearly all the other major craft producers—blacksmiths and potters,
goldsmiths, weavers, leatherworkers, boat (pirogue) makers--who work in or near their compounds or in heavily trafficked parts of town when they are not engaged in seasonal travel. In the case of the masons, whose work takes them out of town more than other artisans, I was able to establish the names of the dozen senior men within the first few weeks of 1983, and continued to locate other members throughout the year as they returned to Jenn. I determined that the number of blacksmiths and potters in Jenn6 was approximately 15 in each case, while the masons numbered about 100. I decided that I would try to interview all of the blacksmiths and potters in Jenn6, but to limit the work with masons to a 25% sample, roughly stratified on the basis of seniority.

In 1983 I interviewed and observed all of the blacksmiths and potters who were in Jenn6 during that year (some men and women, considered permanent residents, were never present), in the course of six months (Table 3.1). I averaged about seven visits per person, but with some I spent considerably more time. I interviewed approximately 25% of the masons, but not as systematically as I had proposed. Many masons were inaccessible, and once I had access to certain families and networks of masons I tended to follow those connections. I interviewed several times each, for one to two hours at a time, about 20 active masons, including members of the head family of the group, most of the elder masons, and the head of the mason's cooperative (who was responsible for most government contracts). The portion of the group least sampled was the apprentices; I interviewed two apprentices in Jenn6, and two in Kouakourou. Apart from this, the sample was in effect a cross-section.

In addition to the research carried out in Jenn6 itself, I worked in several villages in Jenn6's vicinity to observe craft production there. The villages I chose were: Kouakourou (official pop. 2390; I believe it was considerably larger), a major Marka/Bozo/Somono village at the point where the Souman-Bani distributary leaves the Niger River, 45km north of Jenn6; Soa (pop. 2377), a Marka/Bozo/Somono village 20km to the west of Jenn6; Gomitogo (pop. 2560), a Marka/Bozo/Somono village 14km west of Jenn6; and Senossa (pop. 2530), a Fulani/RimaiBe village 6km north of Jenn6. Kouakourou, where I spent three days, is smaller than Jenn6 but an important service center experiencing relative economic health due to its location directly on the Niger, a broad economic base, and a wide array of specialists in residence. I chose it in order to compare its craft production activity with that of Jenn6, and to see how important were Jenn6's services, especially the provision of manufactured goods, in this related but quite independent setting. I interviewed blacksmiths, potters, masons, and non-specialist townspeople in Kouakourou and observed the active market place.

I made two three-day trips to Soa, where I concentrated on the logistics of pottery mass-production and distribution, social relationships between the Somono and the more populous Marka and Bozo, the organizational structure of the masons, the activity of Somono blacksmiths there and their travel patterns, and the nature of transient craft producers who frequented the village. Gomitogo, to which I made three one-day trips, was observed as a 'control' Marka/Bozo/Somono village because it was not engaged in voluminous pottery production, but had a similar
population base. I visited Senossa about a dozen times during the second field season and learned about urban/rural similarities and differences, village economy, and craft production by griots in the virtual absence of Bozo and Somono.

Because thousands of villagers entered Jenn6 every Sunday and Monday for the weekly regional market, I was able to speak with villagers from the economic region during their visits, including artisans. I spent half a day every week in the Monday market, noting the Jenn6 and non-Jenn6 artisans selling craft goods, the nature of those goods relative to things produced in Jenn6, and the interactions between the visiting artisans and those of Jenn6 who were marketing their own goods. I also used the Monday market as an opportunity to socialize with the Jenn6 blacksmiths as a whole group, and with the potters in their two groups (Somono and griot), and to buy things from everyone as often as I could.

To document the family interrelations of craft producers, I did research in the census books in the Office of the Commandant in Jenn6. The information on each family consists of a listing of the family head (chef defamille) and all the members of his (or, in rare circumstances, her) household with their dates of birth. Because Malian women do not change their family names, it was possible to trace the movement of women between artisan families as well as to see which families of artisans had married without restriction, to non-artisans of their ethnic group. This research allowed comparison between what informants told me about marriage practices and what was recorded from marriage licensing, and also raised numerous topics for further interviewing regarding family interrelations.

Through a combination of interviews, government documents, and my own travels I compiled regional information relevant to the analysis of artisan activity in villages related to Jenn6. Jenn6's administrative region (the cercle of Jenn6) consisted in 1983 of approximately 170 towns and villages. For each of these settlements I attempted to determine the size of the population, the ethnic groups living there, whether or not masons, smiths, or potters were resident, and from which village the masons who constructed the village mosque originated (the data appear in Appendix A). Although I was not able to corroborate some of this information through multiple sources, it is a better description of the cercle of Jenn6 along ethnic lines than had been available previously, as well as an indication of the distribution of artisans with regard to ethnic groups, minimum village size for their presence, and an indication of the regional influence of masons who were not from Jenn6 itself.

Language

French was the field language more than any other. It is the official language of Mali and is used in schools throughout the country. Bambara (or Bamana), a Mande language spoken by the Bambara people, is the lingua franca of Mali and is well known in and around Jenn6, where everyone speaks with fluency at least one language in addition to their first (more commonly two or three). Bambara is not, however, a socially dominant language in Jenn6 or its hinterland. I studied Bambara in Jenn6 during the 1981 field season and in the U.S. before my return to Jenn6 in 1983, but it did not prove as useful as expected in 1983. I shared a
house with two families, one Dogon and one Songhai, and neither habitually
spoke Bambara at home, although one family spoke Bambara with me.
Blacksmiths, masons, and potters speak Songhai and often Bozo as well; Songhai
goldsmiths speak Songhai; and the griot artisans of the Fulani speak Fulfulde. I
spoke Bambara with a small group of individuals and, besides French, it was the
only language I used in public, but it usually did not work as an interview
language.
Bambara is only the third most common public language in Jenn6, after Songhai
and Fulfulde, and is most frequently encountered among bureaucrats, many
ofwhom originate near the capital of Mali, Bamako, and among the Bambara
themselves, neither ofwhom were subjects ofmy study Because it is the language
ofBamako, and the most generally known in Mali, it was not socially
disadvantageous for me to use it in public, since more non-Malians speak it than
any other local language. However, when I realized that none of my subjects was
a native Bambara speaker I decided, after some experimentation, that the best way
ofproceeding was to use French, which I speak fluently, with whomever I could,
and to use field assistants who spoke fluent French and either Fulani or Songhai
when informants could not speak French well. I worked consistently with two
interpreters, men educated through secondary school, in their early twenties:
Haber Gano, a native Songhai speaker who spoke Bambara as well; and Kolado
Bocoum,
a Fulfule speaker who spoke Songhai and Bambara. The ideal linguistic situation
would have been for each respondent to be speaking his or her first language, and
for me to be speaking to them in Fulani, Songhai, and Bozo. The eventual
arrangements were a good compromise, because at nearly all times everyone
involved in interviewing was speaking a language fluently, which would not have
been the case had I been interviewing in Bambara myself. When I was not
speaking directly to the informant but through an interpreter, extreme care was
taken to record the informant’s responses.
The only time that Bambara was the interview language was in certain villages
outside Jenn6, where Songhai was not spoken, and where Bozo would have been
the language of choice. Bozo is one of the few languages in this area that people
do not speak as a second language, so it was not possible to find a French/Bozo
speaker who was versed in the other languages as well. The Bozo speak Bambara
in order to communicate with most of their neighbors, with the exception of the
Marka and Somono who reside in villages with Bozo; in all such cases the first
language of everyone is Bozo. Speaking Bambara with them is not a social
problem; all interviews in Soa and some in Kouakourou were conducted
successfully in Bambara.
Issues of Access to Respondents
In 19811 photographed a number of artisans at work, and returned in 1983 with
copies for the subjects. One of the elderly potters I had photographed had died in
the interim, and my return with several photographs of her was met with great
appreciation by members of the blacksmith and potter community; this
established me at once with a number of families. After initial social calls on
several families, I visited each blacksmith while accompanied by one of my
research assistants. The first visit to each smith comprised a series of introductions, where I would explain who I was, what kind of family I came from, where and with whom I lived in Jenn6 and how long I was staying, and what kinds of information I wanted to obtain. Over half the smiths I interviewed were French speakers, and I conducted interviews with them myself, usually still accompanied by one of my assistants, who would make his own notes during the interviews for comparison with mine, and would also note any non-French conversation that took place in our presence. With the others, I spoke in French and my research assistant would translate, usually into Songhai. I held the first interviews while the men were working in their forges, so that I had ample opportunity to ask straightforward questions about what I was watching. This helped to eliminate suspicions about ulterior motives I might have had. As good working relationships grew, I asked more personal questions concerning family histories, social relationships, seasonal movements, and economic decision-making. The blacksmiths claimed not to have been interviewed by van der Wijngaart (1981) in his study of the specialists in Jenn6, who was the only person, to my knowledge, to have written recently about Jenn6 artisans (apart from the masons). Being the first researcher to spend time with the blacksmiths certainly worked to my advantage with them because they received me gladly and were patient and cooperative in all aspects of the research.

My normal visits with the blacksmiths were in the mornings in their shops, and lasted about four hours, sometimes ending with my having lunch with members of the family. Few of my informants ever felt comfortable in my home, so I was unable to reciprocate this hospitality. I compensated by taking coffee, tea, or kola nuts, typical gifts for men, to the first four or five interviews and thereafter as it seemed appropriate. Some people became embarrassed by accepting gifts, and in those cases I switched to taking food gifts for their children, such as oranges, which were always accepted gladly.

Although most of the interviews were in the forges, I visited blacksmiths at their homes on occasion, usually in the afternoons. In this way I first met many of the potters at home, but I did not begin interviewing them until I had a firm base among the smiths. Once I had conducted initial interviews with all the men in a blacksmith shop, I would visit with them and interview them as a group. Despite the ease of interviewing the French speakers among the blacksmiths, some of the best respondents turned out to be non-French speakers.

That I waited to begin interviewing potters until I had met and spoken with all of the Somono blacksmiths became a problem. The women who were potters, none of whom spoke French, were much more reticent with me than the men were, and were intimidated, I later learned, by what they thought I knew about their husbands that they might not know themselves. Potters also did not think of their work as particularly interesting, so they could not imagine what I wanted to know about them. Fortunately, several potters with whom I became friends early in the year, particularly those whom I had met in 1981, convinced the others that I was not going to be troublesome. The three griot potters in Jenn6 were extremely easy
to work with from the beginning, possibly because I had not interviewed other family members previously, but also because most griots tend to be socially outgoing; the women come from a tradition of practicing professional marriage arrangement, female circumcision, and storytelling, among other things. Although some potters hesitated to work with me in the beginning, I eventually met and spoke with all of them many times. In retrospect, I should have begun the research with the potters.

During my interview sessions with potters, I was always accompanied by one of the research assistants. Although I was concerned that having a man with us would intimidate the women, this did not materialize as a problem. Unfortunately I was by far the more worrisome presence. Some of the women already knew the assistants and their families, and by the time I had built a relationship with each woman, it was clear that she was comfortable with the assistant as well. I brought rice, dried fish, soap, or some other household item with me when visiting the women, or a small amount of money, all of which are common gifts between women and were accepted graciously. I also purchased pottery from each of them, regularly. Interviewing sessions were often shorter with potters than with smiths, and consequently more numerous, because the women switch back and forth between pottery making and housework frequently, and I did not wish to hamper their routines. I became sufficiently well acquainted with several of the women to be invited to attend women's social rituals, involving new babies, excision, and marriage preparations. I had considered apprenticing to a potter for the purposes of gaining better understanding of techniques and greater acceptance by the group, but the potters to whom I suggested this thought it an absurd idea and I did not pursue it.

Many of the masons, who were the last craft group I approached, had been interviewed by architectural historians, photographers, and journalists over the previous decade and a half, and had been the subject of a Japanese television documentary as well. In contrast to others artisans, many masons thought of themselves as high-profile artists. Consequently their attitude was often impatient, and even bored. This was not the case with all masons and I found cooperative interviewees. However, whether they had been interviewed before became an issue, and affected my success with some. Work with masons differed from that with the work-site oriented potters and blacksmiths. I approached elder masons at their homes, because they did not do a great deal of public work, and younger masons while they were engaged in building. When masons were working, I tended to watch and take notes but not to interrupt their work with questions. Actual interviews took place in the mens' homes, at a time we would set. This arrangement caused most interviews with masons to be more formal and more hurried than those I conducted with artisans who were engaged in their work and for whom the interviews helped pass the time.

It is difficult to separate information derived from interviews on the one hand, and 'observations' on the other. Craft producers provided me with much to observe while I was interviewing. Data that derive directly from observations as opposed to interviews include: workplace layout and organization, specific techniques of manufacture, storage and discard of materials associated with production,
marketing practices, social interactions, and clothing and jewelry. Plans of blacksmith and goldsmith forges are included in Appendix B.

Although one objective of my 1983 research was to interview as many artisans as possible from each category for certain kinds of data, a more important goal was to concentrate effort--through long-term, repeated interviewing--on as many artisans as were willing to spend time with me. I did not know how many people would be agreeable to this, but I was optimistic based on the responses I had received during my preliminary work in 1981. In each of the three groups on which I focused the research, I came to rely upon certain members who became exceptionally willing and conscientious informants. With them I was able to pursue more personal topics such as family histories, money, marriage, religion, scandal, magic, and economic hardship. The more I knew, the more different people were willing to tell me. I learned little throughout the field season that I could not corroborate with other informants, whether artisans or others.

All of my notes are handwritten, with the exception of a few taped oral histories, and were recopied and checked in the field. Although I went to Jenn6 with the intention of taping all interviews, a number of circumstances prevented my continuing to do so after the first few attempts. The noise levels in the forges precluded any taping there. Further, the taping was viewed very suspiciously by the potters, and because their confidence was difficult to win, I abandoned my efforts to tape. It might have been possible to tape interviews with the masons, who were used to the attention, but by the latter half of the season I no longer felt that taping was desirable in Jenn6 at that time. I believe that in this setting, and certainly in villages, taping made interviews more of a production and the tape recorder itself became the center of attention. In my efforts to remain welcome, and as unobtrusive as possible, I decided to risk not taping for what I felt I could gain. Were I to return to Jenn6, with the intervening years of increased access to tape recorders and even video equipment, it might well be possible to use recording equipment beyond cameras.

My confidence levels are highest with the material learned from blacksmiths and potters, who were ultimately so pleased with my prolonged interest in them that I believe they were forthcoming with all kinds of information, personal and otherwise. I often had the impression with the masons that the more cosmopolitan of them often told me what they thought I wanted to hear. One result of this is that I have not included in this study the standard oral traditions of the masons, some of which have been recorded elsewhere (Prussin 1973).

In addition to the blacksmiths, potters, and masons, I interviewed most of the goldsmiths in Jenn6 (several members of all seven workshops that were then in service), three leatherworkers, three cotton weavers, two tailors, four carpenters, two embroiderers, two slipper makers, one pirogue maker, and three transient Tuareg metalsmiths. These interviews were three to four hours each; a few were single visits but most were interviewed at least twice. This additional contact with artisans allowed not only a fuller descriptive picture of the craft activity in town, but also provided comparative
information to use in understanding the three groups central to the study Non-
artists whom I interviewed included two leading religious figures, several
merchants, four government representatives, ten griots, two non-griot oral
historians, the thirteen chefs de quartier (representatives to the government of
each neighborhood) of Jenn6, and a selection of farmers, fishers, and pastoralists
from the local population. Such interviews lasted two to four hours, and I
interviewed most people at least twice, with the exception of the chefs de
quartiers who were interviewed once each.

Through the interviews with non-artisans I accomplished a number of goals. I
questioned leading Jenn figures, such as the imam (the major religious leader),
chefs de quartier, marabouts (Muslim scholars and teachers), and government
people--most of whom are elders--for information about Jenn6 itself: for
example, socioeconomic and cultural changes witnessed during their lifetimes,
social attitudes, questions of relative ethnic status and seniority in the region,
Islam and pre-Islamic religious belief systems, and relationships between power
structures and the people, then and in the past. Through the griots I learned about
family histories of artisans, social relationships, magic related to craft production,
and about the griots themselves. Interviews with townspeople were structured
largely around hypothetical situations: "What if your daughter wanted to marry a
blacksmith's son?" or, "If you were looking for someone to work for you in the
house, from which ethnic groups would you hire?" Compiling numerous
responses of this kind helped to refine my observations of social relationships
between individuals, ethnic groups, and social classes.

Conceptual Terminology

The terminology used in the existing literature on artisan groups in the Western
Sudan is inconsistent. In many cases the use of terms such as "caste" and "guild"
seems indiscriminate, when the actual characteristics of the groups in question
have not been explored deeply enough to warrant such classifications. Use of
terminology that originates outside Africa to categorize African social institutions
has been controversial (Cochrane 1971:1149; Goody 1971:9, 21, 73-76), because
of the claim that using non-African terms invokes analytical frameworks that will
obscure the African elements under study. I use the offending words like guild
and caste sparingly here, but not because of this particular objection. Rather,
using the terms across the range of craft producers gives the false impression that
the concepts are interchangeable, and gives a misleading concreteness to the often
malleable structures of the groups themselves. In the chapters that follow, I use
the term "group" as the standard nomenclature. Other terminology is discussed
when it is useful.

What may be unfamiliar non-English terms, I have defined in a glossary directly
following the concluding chapter. Please note that where I use the present tense, it
is with the understanding that what I am discussing still obtains in 1999; where I
use the past tense, I am making no such assumption.

Chapter 4: A Survey of Jenn 's Ethnic Groups

Introduction
From the early 20th century, surveys and studies of the Inland Niger Delta (Fig. 4.1) have been carried out, including information on, and analyses of, some of its ethnic and other social groups (Delafosse 1972 [1912]; Gallais 1967; Galloy et al. 1963; Meniaud 1912; Monteil 1903, 1971 [1932]; Sundstrom 1972; Winters 1973). Consequently, ethnographic information of varying quality is available for all of the following groups. Some of the most comprehensively conducted work is outdated, not applicable to Jenné itself (which lies outside the heartland of many of the groups), or contradictory to other information in print. I include the following short survey of the major ethnicities with the goal of providing a textured context for the craft producers, and to show how they are socially anchored within these groups; the understanding is that these identities are flexible, and the generalizations below do not necessarily apply to individual cases. Except where noted, the descriptions come from my own inquiries. Table 4.1 summarizes this framing information.

The people discussed here all live both in Jenné (Fig. 4.2) and its hinterland, although some--such as the Songhai--are more concentrated in urban contexts, and others (such as the Fulani griots, i.e., the griots who speak Fufulde and identify most closely with the Fulani) are mostly rural. Population figures quoted by Gallais (1967:555, n. 1), based on a 1958 census of Jenné, are given as follows: out of 6,809 total, there were 1,462 Marka, 1,389 Bozo, 510 Somono, 562 Songhai, 668 Arma, 41 Arabs, 807 Fulani, 467 RimaiBe, 618 DiawamBe and griots (the former is an attached group such as the griots), and 285 others of whom 79 were Bambara and 60 were Bella (former captives of the Tuareg). Although more reliable recent figures are not available for the number of people by ethnic group, Jenné had between 9,000 and 11,000 inhabitants in 1983, which would indicate that the above numbers have changed considerably.

"Mande" is a cultural and linguistic terr, associated with much of the underlying history of the Western Sudan (see Conrad and Frank 1995a). The term Mande refers to a family of languages that characterizes the geographically largest and most powerful set of societies spanning the Sahel and Sudan in West Africa. Two of the three most important empires of the Western Sudan--Ghana, which existed from possibly as early as the 4th century until the I Ith century, and Mali, which flowered after Ghana's decline and lasted until approximately the 15th century when it broke into smaller polities--were Mande states.

The third empire, Songhai, first established around A.D. 670 by the Songhai people, endured until its destruction by the Moroccan invasion of 1591. Jenné was a commercial capital of the Songhai. The Songhai are the major ethnic group in another language family, called Songhai or Songhay (also spelled Sonrhay), and are therefore non-Mande (Greenberg 1965). However, the beginning of the historic period occurred during the Songhai empire, and relatively much is known about them because of this early documentation. Their culture of those centuries, as it was documented in the early Arabic language chronicles, bears resemblances to what is known of Mande culture from independent sources (S. McIntosh 1984). Continuity of many elements of Mande culture has been extended backward more than three and a half millennia (Welmers 1960, S. McIntosh 1984, Tamari 1995, R. McIntosh
1998), largely through extensive linguistic analysis. Also, many correlations for Mande oral traditions can be found in the emerging archaeological picture of the Late Stone Age and Iron Age in what is considered the Mande core area: the upper Niger region at the center of the Mali empire and near the present border between Guinea and Mali (S. McIntosh and R. McIntosh 1983). The present extent of the Mande language area, far exceeding that of the original core area, ranges from eastern Mauritania to the coastal areas between Guinea and Ghana, and passes directly through the Inland Niger Delta. Jenn6 lies in what is considered the northern Mande linguistic area, where the major Mande tongues in the region under study are Bambara, Bozo, Bobo, and Marka (although the last is not spoken in the vicinity of Jenn6). Members of certain ethnicities considered "Mande" do not always speak Mande languages. The Somono, for example, who speak Bambara in their core area around Segou, and are considered a Mande group, speak Songhai when they are born in Jenn6. They are still part of the Mande cultural sphere, both by their own identification and by others, including ethnographers. Unless otherwise noted, when I use the term Mande I am referring to a generalized cultural complex described below.

Gallais, who examined the human geography of the entire Inland Niger Delta more closely than anyone before or since, described the situation there as one of "ethnic confusion" for the outsider (1967:195). Sorting out this confusion is beyond my expertise, but it is worth noting that one source of confusion may lie in the fact members of craft-producing groups are not necessarily members of ethnic groups. Perhaps until the end of legal slavery at the onset of French administration (Roberts 1987), many of the craft groups seem to have had identities independent of the level of social ascription that outsiders identify as ethnicity. Early literary references to artisans often do not contain acknowledgement of an ethnic (or what would have been labeled "tribal") context for them, although this does not mean that they were not associated closely with particular groups. Nor do we know what ethnic labels meant to the writers of previous centuries compared to how we, or more importantly the people themselves, use them more recently What we can say, however, is that in the early part of the colonial period, the French encouraged and at times coerced reascription of many groups, including certain occupational "castes" (in the terminology of the period literature, which we can take to mean endogamous groups with ascribed status) into larger ethnic group. These processes are only now being explored by scholars (Roberts 1987, Conrad and Frank 1995b). Whatever the changes wrought in the decades of French hegemony, the situation in the 1980s reflected ongoing changes in the social relations of ethnic and other groups, and artisans in particular. Ethnographers of this region have paid considerable attention to the internal oral traditions of ethnic groups, including the origin myths and other more psychological identifications of the groups, which some have called "primordialist" in ethnicity studies (Bentley 1987:24-27). Some analyses have concentrated on factors in ethnic separation identified with Barth (1969), such as boundary maintenance for purposes of economic exploitation; these include professional specialization and differential resource utilization.
(Sundstrom 1972, Gallais 1967; earlier accounts following this general approach include Meniaud 1912, Delafosse 1972 [1912]). In reference to economic specialization in the Western Sudan, Lovejoy writes about salt production: "Seen from the perspective of the region as a whole, it might seem as if ethnicity was the fundamental organizing principle that brought the forces of production together" (1986:252). Although one can see social principles devoted to maintaining nonconflicting resource utilization—such as the division of land and water rights along ethnic boundaries—tolerated transgressions occur continuously that serve to diversify the resource base available to all ethnic and social groups (Gallais 1967:116; R. McIntosh 1979:174-177).

When I use the term "ethnic group" in reference to Jenn6, in the majority of cases I am referring to the highest, or perhaps largest-scale category of social ascription by which the people normally identify themselves. The term "ethnie" (Fr.) has meaning to French and non-French speakers in this area. When I asked respondents about their ethnie, the majority gave answers such as "Bambara," "Marka," "Bozo," and "Somono." Other answers, such as "Arma" (considered to be a subgroup of the Songhai with North African ancestry), "numu" ("blacksmith"), and "Jennenk6," raised questions for me about the nested and overlapping groups. "Jennenk6" is an interesting example of the fluidity of categories; it means literally "men of Jenn6." Although people from Jenn6 who find themselves far from home might identify themselves to a stranger as Jennenk6, in Jenn6 itself it implies an urbanite who has Marka, Arma, and therefore probably Songhai, ancestry (cf. Winters 1973:24; Monteil 1903:88).

Multiple people in Jenn6 itself, when I asked for a definition of Jennenk6, said it meant the same thing as Songhai, contradictory to the literature which places it closer to the Marka. From another angle, Gallais (1967:84) wrote that the designation Marka implies above all the trilogy of Islam, commerce, and Jennenk6 influence. Social ascription is in many cases separate from the actual social relations observed, as we well know (Barth 1969). Although most members of this society "belong" to a particular ethnic group for administrative purposes, many see themselves as separate from these ascriptions, or as identified by several of them, including many of the blacksmiths. The overlapping and fluid natures of social identity is a characteristic of this and many postcolonial societies (e.g., Werbner 1996); for the purposes of this study, I acknowledge that these identities are only part of the story, but they are part I want to try to convey as they were being described to me during the period of field work.

The Songhai

The Songhai are the most urban ethnic group of the Middle Niger region, but because they are limited to Jenn6 and a few of the larger towns such as Sofara and Dia in the southern part of the Delta, they numbered only some two thousand in the region, not including individuals who consider themselves Jennenk6, and were about 8% of Jenn6's population at the time of the census (Gallais 1967:22; these figures may be too low for the 1980s). The Songhai are an urban group in Jenn6, as well as in their heartland area between Timbuktu and Gao. However, in the latter area, they are also intensely rural, in contrast to Jenn6 (Gibbal 1994). The
Songhai are well known historically, because their rule of the Niger Bend and their eventual defeat by the Moroccans in the late 16th century spanned the period of Arabic language documentation in the Western Sudan, which began ca. A.D. 1000 and resulted in a number of major and minor documents concerning the Songhai empire (Cissoko 1975). These documents (two premier examples are the Ta'rikh el-Fettach and the Ta'rikh es-Sudan) pertain mainly to political life, but important ethnographic details are recorded in them. The historical relationship of the Songhai with areas north, from the Timbuktu-Gao region (which formed the geographical heart of their empire) to North Africa, helps give the Songhai in Jenn6 a place among the dominant ethnic groups there. They are all Muslim today, and all speak Songhai. The artisans among them carry the relatively high social status afforded the entire group. Within Songhai society another group, the Arma, is nested, and this group identifies even more strongly with North African precursors.

Most Songhai families are engaged in farming, as are most of the residents of Jenn6, and usually grow rice complemented by some millet and sorghum when the rice crops are insufficient. In Jenn6 the artisans among the Songhai are considered average farmers with a specialization, "like the merchants" (Gallais 1967:473; cf. Rouch 1954:23,41ff., who designates the Songhai artisans involved with iron, wood, pottery, leather, and cotton as "casted," while barbers, tailors, net makers, and masons are not). Writing about the Songhai empire, Cissoko describes most of the artisan groups, with the exception of the masons, as casted (1975:129-133). As the major ethnic group in the family of Songhai speakers, they were culturally differentiated in the pre-Islamic period from the more numerous speakers of Mande languages. However, for the purposes of the urban Jenn6 setting, the Songhai are one of the major contributors to Jennenk6 culture, and provide many families in Jenn6 with links to Timbuktu and the Niger Bend. One of these links is through their artisans. Most of the artisans among the Songhai (goldsmiths, carpenters and blacksmiths, tailors and embroiderers, slipper makers) are tied to the Arma lineages within the ethnic group (Frank and LaViolette 1994, LaViolette 1994b). The Songhai masons are not so clearly tied to the Arma, possibly because the identity of the masons is now strongly influenced if not dominated by its numerous Bozo members (LaViolette 1994a). However, it is true across all the Songhai artisan families in Jenn6 that no apparent stigma is associated with their performance of craft producing activities, whether or not Songhai artisans were or are "casted" in the northern Niger Bend.

The term 'Arma' associated with a family identifies it as descended patrilineally from Moroccan conquerors, themselves a mix of Iberian and North African peoples, of the Songhai Empire. Etymologically the name is militaristic, derived from the Arabic al-ruma, or sharpshooter (Abitbol 1979:11). However, after an initial period when the Arma remained aloof from the residents of Timbuktu, the town with which they are most closely identified, they intermarried with "everyone" (Pffontan 1926:154). Intermarriage with the Songhai, who were the politically dominant ethnic group in the Inland Delta prior to the invasion, was the
most common for Arma men, and the relationship with them has been the most
enduring. Arma, by the late 18th century, took the form of a highranking class
among Songhai, based on their position as part of the conquering force. Arma
sociopolitical prominence endured despite the weakening of Moroccan power,
until the Fulani theocracy of Sheku Ahmadu took hold around 1825 (Pfontan
1926:158, Trimmingham 1962:146, Abitbol 1979:11, 163). Although the Songhai
no longer have real political power in the Inland Niger Delta, people of Songhai
or Arma parentage remain of relatively high status. Arma families are usually
present in any Songhai group; in the area around Jenné this means in Jenné itself
and a few other large, nearly urban villages. Arma families are often identified by
the surname "Touré" (Rouch 1954:4).

The way in which craft production figures into Anna and Songhai history is not
clear, but raises questions about how the roles of artisans come about. From the
17th through 19th centuries, much of the commercial life of
Timbuktu was based upon artisan production. The Arma had exclusive rights to
shoe- and slipper-making and the embroidery of those articles (Abitbol 1979:181-
182), comparable to that which they have now in Jenné (see Frank and LaViolette
1994, Frank 1998). This was not, apparently, a low status activity at all (Abitbol
1979), possibly because of the North African derivation of these particular shoe
styles and their symbolic relationship with Islam, even though artisans including
blacksmiths, carpenters, and potters apparently were at the bottom of Timbuktu
society along with slaves (Abitbol 1979:163). The issue for the present study is
the place of the carpenters, blacksmiths, and goldsmiths in Jenné who identify
themselves as Arma. Several non-Arma respondents hinted that these particular
artisan families were in fact "slaves of Arma": artisans who did not derive from
the "noble" slipper-making and embroidering families, but from servile groups.
Whatever the historical situation with these families, it seems entirely possible
that crafts other than slipper-making have become noble "by association," and
have become included in Arma artisanry over time. Several of the Arma/Songhai
goldsmiths said specifically that they had come originally from slippersmaking
families, so this association is likely- What has happened further, however, is
illustrated by the single Anna smith living in Jenné in 1983, Babalay Touré, who
married into numu blacksmith families on three occasions, thus bridging two
seemingly different social groups.

The fact that people still concern themselves with the question of Arma ancestry
is indicative of the preeminence of ties to North Africa and Islam in issues of
relative status. Whether the blacksmith and carpenter Touré are derived from
Arma nobles is less important in many eyes than the fact that they are tied--both
through the production of North African-style housing accoutrements, linking
them concretely to Islam, and through the heritage implied by their surname--to a
North African Muslim past. In 1983, all of the Tourés, including those involved in
smithing and carpentry, had intermarried with other Arma families and with
Songhai, and regardless of the hint of ties to formerly enslaved families, were
socially comparable to other Arma.

The Marka
The Marka are the second most populous of the ethnic groups around Jenn6, with approximately 22% of the population; together the Marka and Bozo make up nearly half of Jenn6's population (based on census data from 1958; Gallais 1967:22-23). They are identified also as Nono and Soninke. The former is reportedly the name by which at least some of this group were known prior to their conversion to Islam in the 13th and 14th centuries during the Mali empire, the first Sudanese empire associated with conversion to Islam (Delafosse 1972 [1912], 1:115; Monteil 1903:88, 94; Gallais 1967:83). The term Soninke is used widely to designate people of the kingdom of Ghana (Trimingham 1962:26), the first known empire of the Western Sudan, ca. 6th to 11th centuries A.D., but not as often in reference to the Jenn6 area. The word appears, however, to be used synonymously with Marka (N'Diay6 1970:175). People with whom I spoke about these ethnonyms did not agree among themselves. Some respondents claimed that Nono designated the rural component of the regional Marka, while others said that Nono was the Bozo language term for the Jennenk6 (MalinkoBe is the Fulani designation for the Marka and Nono). It seems likely that the Nono were one of the groups brought together under the Marka rubric in the period of the Mali empire. In any case, conversion associated with ancient Mali gave rise to the group's current name, which is derived from "Mali-ke," the Mande term for "men of Mali" (Gallais 1967:83, 109).

In Jenn6 the Marka are primarily merchants, religious elites, and rice cultivators; they have added growing millet and sorghum to their repertoire due to the failure of rice during the drought. As of the 1980s the Jenn6 mosque had been administered by a Marka imam and mullahs for many generations (the muezzins, who sing the call to prayer, were from a Somono family during 1983). The Marka born in Jenn6 speak Songhai, thus identifying themselves there as an urban group. The Marka are also an important rural group, and have been associated with the low-lying areas of rice cultivation in the Pondori for many centuries (Gallais 1967:79-80, 110). Those born in the countryside, where they frequently live in towns and villages along with a large Bozo component and a smaller Somono one, speak Bozo as their first language, as do the Somono. In these villages the chef de village is usually Marka, but an elder from each of the Bozo and Somono contingents will consult with him, and the norm for this relationship is cooperative coexistence. The Marka also live with Bambara in villages. Villagers I asked about intermarriage between Marka and their neighboring ethnic groups claimed that it was not common (cf. R. McIntosh 1979:38).

None of the identifiers of the Marka--maraboutage, rice cultivation, mercantilism, or their language (whether Bozo or Songhai)--distinguishes them from neighboring groups when each appears alone, but the concurrence of the four establishes them as a distinctive group. In terms of this study, they are notable for having included no artisans until the recent small trend of apprenticeship to Bozo masons in some Pondori villages. The urban-dwelling Marka have easy access to the array of urban artisans, and in the villages they are served by the masons,
blacksmiths, and potters found among nearly all Bozo and Somono groups, and by traveling griot artisans.

The Fulani, NyeenyBe, and RimaiBe

The Fulani are the dominant pastoral ethnic group in the Western Sudan and have attracted considerable attention from ethnographers, in addition to their treatment as part of the mosaic of the Inland Delta (Monteil 1903, 1971 [1932]; Dupire 1962; Gallais 1967; Riesman 1977, 1992; R. McIntosh 1979). They are not Mande linguistically, but have social characteristics overlapping with Mande peoples. Exactly at what time the Fulani entered this area is contested, but it appears that as early as the 11th century A.D. waves of Fulani were moving westward into the Delta (Gallais 1967:87-88, N'Diaye6 1970:60). Their pastoral role in the area of Jenn was altered in the early 19th century, by their leader Sheku Ahmadu. During his reign, he transformed the Fulani into a partially, and in some cases fully, settled group (Bi and Daget 1962, Brown 1969). Sheku Ahmadu, who was born in a small village called Roundisirou less than a kilometer north of Jenn6, left a strong Fulani and Muslim mark on this area, including the Fulani language (Fulfulde) as a lingua franca for the Inland Niger Delta (Imperato 1986:72). He brought political cohesion to the Delta, which, for most of its known history, defied attempts at political unification (Johnson 1976:482). According to a respondent in Jenn6, Sheku Ahmadu settled a Fulani family in "every third house" in town, and even if not literally true, it conveys the scale of that campaign and a contemporary sense of its impact. Since that time the Fulani presence in the area of Jenn6 has been strong, although their political power came to an end with the fall of Sheku Ahmadu's Islamic theocracy in 1862 (Brown 1969:148 ff, Gallais 1967:96-98, Oloruntimiehin 1972). Although Fulani groups are spread widely across the Western Sudan, in Mali they are concentrated in the Delta and to its immediate east and west. Gallais cites the Fulani as the largest ethnic group in the Inland Delta, numbering approximately one-third of its over 350,000 inhabitants (1967:22).

Their concentration in this region is due to the presence of marshland grasses (Echinochloa stagnina, Vossia cuspidata, Nymphaea lotus, Pistia stratiotides), collectively known as bourgou, that support the Fulani cattle (Traor6 et al. 1980:20). Fulani villages are usually located on dunes and levees, and in the region of Jenn6 they often share their villages with RimaiBe, Bambara, and/or Marka (Appendix A). Their herds do not spend the entire year in the Delta; the pastoralists leave their villages just before the June rains to escape parasites, and return at the end of the rainy season (Gallais 1967:112-114, 119-161 covers this transhumant cycle in detail; R. McIntosh 1979:171). Their return at the close of the rainy season around October coincides with the millet harvest, so that the cattle graze on the millet stubble and fertilize the fields for the following year. The Fulani are in their permanent villages again by late November. Fulani living in villages are cattle raisers, but most complement their household incomes with farming, often hiring RimaiBe to farm for them for a share of the harvest. In Jenn6 and many of the larger towns, Fulani are involved in commerce in addition to their cattle and cereal raising, having access to capital through their cattle.
The Fulani so-described are the "nobles," the highest stratum within their society. The noble Fulani are not, traditionally, craft producers (although two or three Fulani boys were apprenticed to masons in Jenn6 in the early 1980s). Like other societies in the Western Sudan prior to French colonialism, the Fulani subdivided into three major strata: the noble top tier, griot artisans in the next, and the slaves at the bottom. The last category is no longer a legal one, but survives in the form of the RimaiBe (which I capitalize to denote their contemporary status more akin to an ethnic group, and leave in lower case when talking about the historical category).

The griots are, as mentioned in Chapter 2, part of a pan-societal phenomenon in the Western Sudan. Griots in Mande society are specialists who create and perform songs concerning hunting, praisingsinging, and historical epics (Bird 1971.16-17). The term implies a sense of exclusive access to knowledge, wisdom, and a special place in society. Historically, every institution, "from lineage to guild," had its bards who helped the population at large understand the order around them and gave the lineage, guild, or city a sense of continuity (Hull 1976:109). There is also a griot function that consists of the activities thus described but does not denote specifically the person doing them (Bird 1971:17). In recent history there were apparently no griots in Jenn6 who functioned as full-time professional praisers occupying themselves with the traditions of the town (D. Robinson, pers. comm., cited in R. McIntosh 1979:32), but many Jenn6 griots perform for families and are craft producers.

The Fulani griots not only perform the functions associated with the griot role in general but also they are artisans of various kinds. The griots of the Fulani, called nyeenyBe, are subdivided by occupation of the men, such as goldsmiths, blacksmiths, woodcarvers, leatherworkers, or praisers only. People within these divisions intermarry. A number of the nyeenyBe women in Jenn6 were potters; others were tatooeurs of women's lips and gums, experts at female circumcision, arrangers of marriages, singers, storytellers, and musicians. Artisans may also perform the specifically griot functions, or may do the craft work only. NyeenyBe are considered born into one of the groups, however, based on the identity of their fathers. In their lifetimes they may apprentice to someone who performs another of the craft functions, and change the identity that will be ascribed to their children (cf. Riesman 1977:19). Riesman found in Burkina Faso that it was normal for Fulani griot blacksmiths to marry women of blacksmith "castes" living among the Mossi (an ethnic group of predominantly agriculturalists) while it would be extremely rare for a Fulani noble to marry a Mossi woman (1977:23).

NyeenyBe, according to my observations, were the most strictly endogamous component of Jenn6 society. Marriage partners are always sought from within the regional group of Fulfulde-speaking griots. A popular Malian film produced in the early 1980s, "Qui veut une femme, qui veut deux femmes" (Fr.), or "Who wants one wife, who wants two wives," illustrated the degree of social disapproval still remaining then around the violation of such rules of endogamy, as well as the problems arising in polygamous households. It told
the story of a griot who moved to Bamako, defied his family by becoming involved with a non-griot woman, married a griot to appease his mother and then took his lover as his second wife. As a result of these transgressions, the women killed each other and he went mad. The film was critiquing, at one level, the maintenance of social taboos that drove people to such madness, but it was clearly also a warning shot, particularly on the issue of griot/non-griot marriage.

NyeenyBe take charge of many of the practicalities of Fulani life, but the Fulani do not consider them kin. In Fulfulde it is not possible to say "Fulani blacksmith," or "Fulani bard;" that would be a contradiction in terms (Riesman 1977-116). This separateness within the Fulani social structure was the only vigorously maintained isolation of artisans in the Jenn6 setting. If it was, in fact, reminiscent of the way other artisans lived in other societies in the past, it is indeed quite extreme. The non-griot artisans within other ethnic groups are acutely aware of the gulf between them and nyeenyBe. When a shared surname between the two groups, such as Kass6 is in the area of Jenn6, prompted me to ask a Somono blacksmith if any relationship existed between him and a griot leatherworker, he was offended and incredulous that I would even suggest it. In another case, I asked someone if any relationship existed between two men, one griot and one not, with the same surname, and the informant told me that the smith pretended that he was not a griot, but in fact was (this is improbable in this case). Despite the "free" status of Fulani griots, they are often poor, are without political power or possibility of it, and in Jenn6 are ascribed low status. This is the identity that someone pretending not to be griot would be trying to escape.

The RimaiBe, who like the griots are not considered ethnically Fulani, also speak Fulfulde as their first language and identify strongly with Fulani cultural values. The question of relative status of the RimaiBe and the griots, as it has evolved since the beginning of colonial rule, is complex. Before the French, each of the rimaiBe (sing. diimaajo) belonged to someone, whether a noble or a griot, while the griots were not owned (Riesman 1977:19; N'Diay6 1970:67). However, in the area of Jenn6 today, the RimaiBe are free: they farm their own fields, do wage labor, work in the fields of others in exchange for portions of the harvest, and engage in a range of commercial activities. Occasionally they become artisans--for example, RimaiBe have begun to apprentice to masons, many weave cotton, and there are a few RimaiBe tailors. Bonds of obligation still exist between Fulani and RimaiBe families, reflecting the previous relationship, that has not been transcended completely.

The rimaiBe were cultivators for the pastoral Fulani, working their owners' land for a piece of the harvest, and occasionally for an additional piece of land for themselves. Many were established in their own villages, overseen by a Fulani or sometimes by a rimaiBe supervisor (Johnson 1976:488). The rimaiBe were derived from different ethnic groups who became indentured to the Fulani until the last century. Presently they consider themselves a separate group, while continuing to identify with certain aspects of Fulani culture--expressing extreme pride at Sheku Ahmadu's contribution to Jenn6 history was a frequent example. RimaiBe today internarry with Fulani and Songhai, and before
the legal end of slavery, a noble Fulani man could marry a RimaiBe woman, thereby eradicating her serf status, and produce children who were considered Fulani and free (Gallais 1967:295); the opposite situation, of marriage between a rimaiBe man and Fulani woman, would not have been sanctioned legally because descent is traced patrilineally. Many RimaiBe have positions of respect in Jenn6 today--the chief of the Kanafa quartier in 1983 was RimaiBe, for example. They are more involved in agriculture than pastoralism, although many own cattle.

The Bambara

The Bambara are the most numerically dominant ethnic group in Mali, with between 30-40% of the population. Their language is the lingua franca for the country (although not for the Inland Niger Delta). In the Delta itself, they are the third most numerous ethnic group (after the Fulani and Marka), with over 60,000 people and 16% of the total population (Gallais 1967:22, N'Diaye 1970:88, Imperato 1986:72). Many Bambara-dominated villages occur in the hinterland of Jenn6 (approximately 40 of 173 settlements), where the Bambara live alone or with Fulani, RimaiBe, and others, located mostly on high levees and dunes with access to sand-over-clay land suitable for growing millet. Their villages form a continuous chain of Bambara settlements south to Segou (R. McIntosh 1979:170). Although they have been the major millet growers in this region since their onset here as early as the 13th century (Delafosse 1972 [1912], 1:283-9), many more people are growing millet since the drought, so the Bambara distinction as the preeminent millet growers is no longer a critical demarcation. Despite the omnipresence of the Bambara in Mali and in the region of Jenn6, however, they are underrepresented in the town. For example, when I asked each of the 11 chefs de quartier in Jenn6 which ethnicities were represented within their neighborhoods, none mentioned Bambara. When I questioned this and mentioned Bambara people known to me who were living there, the typical response was a shrug and a disclaimer that, in fact, the number of such families was not significant enough to mention. It appears that they do not form a majority in any of the neighborhoods. Two general categories of Bambara were living in Jenn6 in 1983: bureaucrats trained in Bamako who were assigned to Jenn, and low-status "immigrants" from their heartland area of Segou and from Jenn6's hinterland, many of whom were employed within households as domestic or field labor (women and men, respectively), or who were self-employed in small-scale services, such as laundering and ironing. Only some of the Bambara living in Jenn6 were converted to Islam; the majority were Christian. The Bambara had high visibility in a place as self-consciously Muslim and conservative as Jenn6. The Bambara lack of modesty by Jenn6 standards (for example, unmarried girls appeared in public without clothing above the waist), and some of their more public forms of entertainment (singing, dancing, and playing of drums--behavior also associated with griots), contributed to their marginal social status in this rigorously Muslim town. The Songhai and Fulani have held political power in Jenn6 in the past, and continue to derive prestige from that heritage. The Bambara have no legacy of power here, although they ruled an important state-level society based in Segou from ca. 1712 to 1861 (Roberts 1981:176), in which Jenn6 was included; a quartier of Jenn6, Bamana,
bears their name. Their lack of a political heritage that the town-dwelling majority identifies with, coupled with religious and social factors, maintain the Bambara in a position of some disapproval, even scorn, in this region.

The significance of these observations to a study of artisans is that throughout Mande-dominated parts of Mali it is the Bambara who are the host ethnic group for blacksmiths, and these blacksmiths are considered among the most accomplished and versatile of all smiths in the Sudan (McNaughton 1975, 1977, 1979, 1988). Bambara blacksmiths are called numuw (pl.), a term derived from possession of energy, or nyama, and knowledge, dalilu; numu (sing.) is also used to identify the women in those lineages, the potters (McNaughton 1975). Numuw are an endogamous, politically and ritually important segment of Bambara social structure, which is based today on two endogamous groups, the horonw, or free people (nobles, farmers), and the nyamakalaw, or craft specialists and bards (jele) (McNaughton 1975, 1979; Conrad and Frank 1995a). The numuw have social functions far exceeding those of the artisan per se, including the roles of healer, social intermediary, and sculptor of ritual masks and statuary (Arnoldi 1986:133-143, McNaughton 1988). Although Bambara numuw occur in the hinterland of Jenn6 in small numbers, no Bambara blacksmiths or potters live in Jenn6 itself. This may be due to the fact that the Bambara (and other non-Muslims) were not permitted to live in the city of Jenn6 by the Fulani, as observed by Ren6 Caill6 (if they entered Jenn they had to pray in the manner of Muslims; Caill6 1968 [1830]:462). The absence of numuw associated with the Bambara is discussed further below in relation to the Somono, who are tied historically to the Bambara as a subject group and among whom live the blacksmiths in the Jenn6 area today. Despite the presence of numuw in some of the Bambara villages, however, Somono numuw and Fulani nyeenyBe potters supply Bambara villages with pottery as well, through central marketplaces and the potters’ voyages to these villages.

The Somono numu and griot potters in Jenn6 named Bambara villages as among their best markets for pottery. The absence of Bambara artisans--even in the Monday market, from bases in the rural areas--creates a situation in Jenn6 different from those in many major (more southerly) towns in Mali, where Bambara-linked artisans dominate. The numu element of Mande society is present in Jenn6 in the form of the Somono smiths and potters, none of whom claimed any Bambara association or heritage, but who are nonetheless the purveyors of an Islamicized form of the Mande numu role.

The Bozo and Somono

The fisher groups in the area of Jenn6 present the biggest challenge in terms of understanding the historical and contemporary relationships between artisans and the full-time food producers in their wider cultural contexts. In Jenn6, the two major groups in question are referred to in the literature as Bozo and Somono, although these terms are simplifications for a more complex reality. The Bozo are, with few exceptions, professional fishers, and are the most visible fisher folk in Mali, numbering approximately 15,000 in the 1970s. They are internally differentiated into subgroups on the basis of linguistic and cultural
traits, both of which, because they are linked to the traits of the agricultural
groups living around them, are dependent upon geographical distribution
(Sundstrom 1972:48, 164). In Jenn6 the Bozo speak the Bozo language among
themselves, but use Songhai, Fulfulde, and Bambara in town, and virtually all are
Muslim. In villages, they speak Bozo, and use Bambara and sometimes Fulfulde
as their lingua franca. The Bozo are a Mande group, like the Bambara, and are
unanimously considered by the other ethnic groups in Jenn6 as the first group to
have lived in the southern Inland Niger Delta (Delafosse 1972 [1912], 1:253-4;
Monteil 1903:94, 259-61). This autochthonous position is undisputed in Jenn6.
Bozo subsistence is based on fishing the banks and shallows of waterways, as
well as marshes, with the use of small dams and hand-held nets (Sundstrom
1972:18). Because they often live in villages with Marka rice farmers and
Somono fishers, farmers, and artisans, their villages are typically located along
levees, or within the middle plains where rice is grown (Gallais 1967:106-7, 440-
2, 456; R. McIntosh 1979:167). Although usually characterized as rural dwellers
in temporary camps, they are a major urban group in Jenn6 as well as other large
river towns such as Kouakourou, where they are involved in fishing, fish
preparation and marketing, farming, boat-building, and masonry. Today, even in
the rural areas, most Bozo live in permanent mudbrick villages.
The less-populous Somono probably originated from
recruited and/or captive groups of boatmen (Bambara, Marka or Soninke, Bobo,
and Bozo) beginning in the 13th century, who performed fishing and transporting
services for the Bambara (Gallais 1967:84; Roberts 1981, Sundstrom 1972:50-1).
For their service to the latter, it is said they were awarded a monopoly on the
navigation of the Niger together with generous fishing rights (Bime 1956:21).
Somono origins in other ethnic groups, and their broad economic base, have led
them to be referred to as a "tribe" (Sundstrom 1972:52); "fishing caste" and
"professional group" are also used. For my purposes I am considering them at the
same level as other ethnic groups in Jenn6 because in practice they are
indistinguishable from such. Group membership can be attained by birth, by
marriage to a Somono, or by adopting watercraft for a profession (Sundstrom
1972:164). All of the Somono are Muslim. The Marka also comprise a group
pulled together from other ethnic groups centuries ago, accept people who marry
into Marka families, and are now considered as a fully-legitimated social entity;
several Somono, indeed, pointed out how similar they were to the Marka.
Sundstrom noted that two aspects of group identity are common to people who
derive the main part of their subsistence from aquatic resources, whom he terms
"waterfolk": that ethnic identity rests on occupational strategy, and that linguistic
and cultural traits are dependent on the host groups, or those groups with whom
they share villages (1972:165). While the Somono have been associated with
waterways apparently throughout their history, they have also been cultivators,
which seems not to have been true of the Bozo. The Somono stand out as the
more urban and versatile of the waterfolk, not bound by a single cultural-
economic heritage (Sundstrom 1972:165).
While the Somono came into existence as an entity under a Bambara directive,
they do not live with nor do they associate particularly with the Bambara of this
region. In the area of Segou the Somono speak Bambara as their first language, but those born in Jenn6 itself speak Songhai, and in their common Marka-Bozo-Somono village context, speak Bozo along with the other villagers (Sundstrom 1972:164). The Somono meet their subsistence needs by group fishing in the midstream of the waterways with large nets, by farming, through commerce (Gallais 1967:108, 438-442; Sundstrom 1972:52), and in some cases, through blacksmithing and potting. The Somono are present as a "component" throughout the rural area around Jenn6; that is, they are almost always tied to Bozo and Marka, for whom they are a kind of intermediate group, mixed throughout the settlements. I know of no villages in the Jenn6 area that are Somono only. The one site on the regional map that points to the possibility of a purely Somono group appears in the arrondissement of Kouakourou. It is called Pora Somono (but actually has several Bozo families resident), and is paired with Pora Bozo, a settlement populated by Bozo families only.

These twinned villages have become a relatively rare pattern in this region, a pattern that resembles closely the more common multi-ethnic village, and which is in keeping with the basic Somono pattern, and possibly with the clustering tendency seen in the archaeological surveys. That the Somono tend to live with other ethnic groups is not a feature unique to them, however. As shown in Appendix A, multi-ethnic villages are much more common than those inhabited by single ethnic groups.

The social relations surrounding Bozo- and Somono-linked artisans differ. Artisans found within the Bozo group in this region--namely the masons and pirogues-builders--typically learn their craft skills from their agnatic kin, regularly marry women from non-artisan families, and carry on subsistence activities alongside other Bozo, that is, fishing, some farming, and some commerce. The Somono artisans in Jenn6, blacksmiths and potters (and in one case in 1983, a goldsmith), are in a similar situation: they also are taught their skills by their parents, the smiths from their fathers or other male kin, and the potters from their mothers or other female kin. The difference, explained further in the next chapter, is in the blacksmiths' sense of separateness from the rest of the Somono. Most smiths, and most Somono potters, think of themselves primarily as numuw, members of the special Mandé social category nyamakalaw. While in the modern period the numuw have been integrated somewhat into the Somono--they frequently marry Somono, and resulting children have few restrictions on their professions--most blacksmiths and potters think of themselves as deriving from a different heritage. The unmarked Somono think of themselves as separate from smiths and potters as well. Outside the griot group in Fulani society, the numuw are the most segregated group related to craft production in Jenn6. This segregation, however, appears to be lessening as more blacksmith children seek other opportunities. If blacksmiths do not seek spouses for their children among the families of other blacksmiths, they can find them among Somono and farmer and fisher families. Most of the blacksmiths identified themselves as numuw to me when I asked them about their "ethnie." If I went on to ask for the ethnic group alongside which or within which this numuw group existed, they said "Korongoy." In cases when I
was using an assistant who was a Songhai speaker, he would translate "Korongoy" to me as "Somono." I was told consistently that Somono was the Songhai word for Korongoy, and that Korongoy was the Bozo language name for the same people; this is not consistent with the most reliable account of river folk by Sundstrom (1972). Sundstrom describes the Korongoy as the waterfolk who fished mid-river (as the Somono do now), and who dominated the northern Niger bend until the arrival of the so-called Sorko, who were predominantly hunters of river mammals such as hippopotamuses (1972:90). The Sorko are a distinct historical entity who, it seems unlikely, would be completely equivalent to the Somono, a group with origins far upriver. It seems possible that the Somono conglomerate might, in fact, have incorporated people who derived from "Korongoy" lineages downriver in the Niger Bend. Rouch, who did an earlier study of the Bozo, further identifies the Korongoy as the fishing "caste" of the Songhai (1954:22), a point that raises another possibility. Without knowing the exact mechanisms, it is plausible that fishing groups, which may tend to have more open memberships than agricultural ones (Sundstrom 1972:77), and some artisan groups might gravitate toward one another when historical events make that productive. Such events could be those seen in the time of Sheku Ahmadu and also during the early years of French rule, when we know that considerable ethnic realignment took place in the Inland Niger Delta (Roberts 1987). The equation of Korongoy with Somono may indeed have a purely linguistic basis in Jenn6, as it was explained to me. Sundstrom (1972:77), for example, reports that the Songhai refer to all fishermen who originate upriver from the Bend as "Somono," when in fact most are Bozo, so it is possible that using "Somono" in Jenn6 was originally meant generally but came to mean the Korongoy who made their way to this area. Also, it seems possible that those numuw, and Somono in Jenn6 who are not smiths and potters, consider themselves connected in some way with the former Korongoy group for historical reasons that are not clear to me. A second apparent contradiction involves the larger fisher group in Jenn6. Whereas it is made clear in the literature that Bozo and Sorko are not synonymous with one another (Delafosse 1972 [1912]:137,253; Sundstrom 1972:76; cf. Ligers 1964-1969), a certain congruity seems to exist between the two terms in Jenn6 itself. The Sorko were a separate group in the Songhai cluster (as the Somono and Bozo are among the Mande), with their specialized hunting of hippopotamuses and other large aquatic game in the area of the Niger Bend until the resources there dried up (Sundstrom 1972:76). When this strategy was no longer an option, many Sorko settled into Songhai villages, intermarrying with "Gabibi," a formerly servile group associated with Songhai and now of a status in the Niger Bend similar to that of the the RimaiBe around Jenn. Some mixed with Bozo and took up fishing (Sundstrom 1972:77). There may be relevance in Sorko history for the configuration of some of the artisans in Jenn6 today. One mason, when asked about his ethnicity, answered first Bozo, and then Sorko. Others answered simply that they were Bozo. Others answered Sorko, both when speaking French to me and speaking Songhai to my research assistant, who, when hearing Sorko, would then turn to me and say Bozo,
much as in the Somono-Korongoy identification. The questions that remain may be due in part to my interviewing methods, but my sense is that they are more to do with the historical fluidity of these identifications, and the subjectivity of ethnonym use in this society. An interesting twist is that the Jenn6 masons are a Songhai and Bozo organization; otherwise, in Jenn6, those two groups have few social ties and little apparent basis for a long-term professional relationship. A possibility is that some of the Bozo are in fact Sorko in origin, and became involved with Songhai builders through the servile Gabibi first during the Songhai empire. Since that time, the Sorko builders could have become reintegrated into the larger, older Bozo contingent in Jenn6 that had nothing to do with building or craft production, spreading masonry through their sons. These questions are worth asking not because it is imperative to find definitive answers, but because of the historical possibilities they raise.

The Bobo, Dogon, and Tuareg

Lastly, I mention in passing three groups present in or around Jenn6 in small numbers: the Bobo, Dogon, and Tuareg. A group that has maintained its commitment to indigenous religious beliefs, with some conversion to Christianity, the Bobo in Jenn6 are engaged in low-status menial labor there, and are relatively far from their heartland south of the Inland Niger Delta and west of Segou (N'Diay 1970:313-336, Le Moal 1971). The Bobo are part of the Mande linguistic (and cultural) grouping, a major division of the Niger-Congo language family, and are thought to be descendants of the Soninke who spread out from the heartland of the Ghana Empire after its fall (Imperato 1986:100). The Bobo do not have artisans active in Jenn6, and are not a major presence in the villages of the region.

The Dogon, who are concentrated in the area atop and below the cliffs of Bandiagara east of the central Inland Delta, have been an increasing presence in the larger towns of the Pondori, a floodplain depression in the region of Jenn6 which managed to maintain agricultural activity even in the worst of the drought-ridden years. Some of the Dogon are semi-permanent transplants involved in commerce, but most were present during the time of this study as part of the work force looking for seasonal wage labor to supplement their subsistence agriculture at home (Maassen 1984). Many of the Dogon in the Pondori are converts to Islam; Jenn6 attracts Muslims from ethnic groups whose majority has adhered to indigenous spiritualities. Dogon involvement in Jenn6 craft production occurs in the fields of cotton weaving and, occasionally, in the lower ranks of masonry. Lastly, the pastoral Tuareg of the Sahara and Sahel are a minor but intriguing presence in the area of craft production in Jenn6. They are not part of the local permanent population, but come into the area from the north in search of metalworking commissions. I discuss them briefly in Chapter 6.

Chapter 5: A Survey of Jenni's Artisans

The blacksmiths, potters, and masons at the core of this study are but three of the artisan groups active in the Jenn6 region (see Table 5.1). In 1983 I spent time with some of these other craft producers, specifically the Songhai, Fulani, and
Somono goldsmiths, the Songhai/Arma slipper makers and carpenters, the Fulani griot leatherworkers, the weavers from a handful of ethnic backgrounds, and the Bozo boat builders. This short survey of craft producers is not intended to be comprehensive in terms of the entire picture of artisanry in the Jennd region, but to serve as a preface to the more detailed accounts in the following chapters. In the survey I emphasize how the artisans are oriented in relation to ethnic groups outlined in the previous section, the nature of the technical systems—work space, raw materials, tool kit, and basic manufacturing techniques, production strategies—and the relative social status of each group where appropriate. Coverage is uneven; goldsmiths, because they invite closest comparison to blacksmiths, are presented in the most detail.

The Goldsmiths

In 1983, seven permanent goldsmith forges in Jenn6 provided work space for approximately ten adult jewelers and a dozen apprentices (cf. van der Wijngaart 1981: Table 3, who also lists seven forges, and Gallais 1967:558, who lists nine). In each shop was a senior goldsmith accompanied by several sons, and occasionally by younger brothers and an unrelated apprentice. The seven shops were located in the following quartiers of Jenn: two in Samseye (both fam. Yaterra); one in Farmantala (fam. Yaterra); one in Yoboucaina (fam. Touré); one in Kouetinde (fam. Kontao); one in Seymani (fam. Niafougou); and one in Dambougalsoria (fam. Touré) (see Fig. 4.2 for location of quartiers). All of these were located in the vestibules of the senior goldsmiths' homes. These goldsmiths were Songhai/Arma, Somono, and nyeenyBe (the Fulfulde term for smith is baylo, and can refer to any kind of metalsmith). By indicating Songhai/Arma, I mean that those families had the surname Tourd, but also had family members who were Songhai; the Yaterra family, which considered itself Songhai, intermarried with Tuareg jewelers in Timbuktu several generations ago and claimed Tuareg affinity. Although all the goldsmiths produced approximately the same repertoire of jewelry and drew from a shared regional artistic tradition, they comprised three distinct sets of families. The Songhai/Arma were the dominant group in terms of size: six of the seven shops were run by them. These six families were all intermarried, although far from endogamous; non-artisan Songhai and Arma individuals married into them regularly, and the women of the families were not artisans.

The Songhai/Arma artisans were not a socially isolated group. On the contrary, among the Songhai and Arma it was common to have artisans in some branch of one's family. In addition to goldsmithing, the crafts of slipper making and hand embroidery were limited to the Songhai/Arma, crafts having entered the western Sudan with groups originating in Muslim North Africa beginning in the late 15th century (Abitbol 1979; Frank 1998). In addition, tailoring and carpentry were also Songhai/Arma crafts. Tailoring, by using an imported sewing machine, was one of the most common of these crafts, and some tailors embroider by hand or machine. Carpentry and blacksmithing are also linked, as discussed below.

The seventh goldsmith shop was run by a Somono elder (fam. Kontao), apparently unique in this area. Only one Fulani griot goldsmith was working in Jenn in 1983 (fam. Koyaté, although there were many in the region, and he did
not have his own shop; he worked in the Somono shop as a senior apprentice. The Somono goldsmith was part of a blacksmith numu family and married Somono women who are not potters; intermarriage between this family and the Songhai/Arma goldsmith families did not seem to have happened. Although there is a professional relationship between the Somono and Fulani goldsmiths, marriage ties between them are unlikely due to the rigidly held endogamy of the latter nyeenyBe.

In the rural zone around Jennd, the market belonged almost exclusively to Fulani griot goldsmiths, who travelled from their home villages throughout the region, and stopped in villages of all ethnic compositions in search of temporary work and lodging. Many of these nyeenyBe originated locally, but griots from the Mopti region and from further north in the Inland Niger Delta also came to the area around Jenn in search of work; in the drought-dominated period in which I conducted this study, Jenn6 was perceived as having a healthier economic climate relative to the depressed rural areas. The Jenn goldsmiths, who commanded much of the jewelry business in Jenn itself, received only a small portion of the village commissions. Only when a villager needed a job done that he or she felt was too sophisticated for village artisans to handle did it become necessary to go to Jennd to commission someone there, a decision that would increase the cost of the transaction, but would bestow greater prestige on the object.

The goldsmith's forge differed in several important ways from that of the Jenn blacksmiths. None of the goldsmith forges were free standing, custom built shops; all were attached to homes. None of the shops contained columns for roof support as did some of the blacksmith forges, nor were the walls thicker than those in ordinary buildings. The nature of goldsmithing is such that few stresses would be placed on the enclosing structure, contrary to the blacksmiths' case. Some of the forge elements were similar: production took place by a fire pit adjacent to which there were bellows and anvils, the latter embedded in sunken logs. Even this basic work station could differ from an iron forge, however, because many of the goldsmiths replaced their bellows with a mechanical pump that took only one hand to operate, so that the goldsmith could hold an object in the fire and operate the pump himself (Fig. 5.1). Traditional bellows take two hands to be effective, requiring a second person to keep the fire going. The anvils of the goldsmith were similar to the small, nail-type anvils of the blacksmith, with square or circular heads approximately 2cm thick and 10cm on a side or in diameter.

In the manufacturing process, the goldsmiths used the same charcoal as did the blacksmiths, although, because the fire was smaller than in the iron forges, used it at a slower rate. It was kept in a basket close to the fire pit. The fire pit consisted of a short clay cone (often heavily glazed around the tip), enclosing either the pipes of the bellows or the front of the pump, that concentrated the stream of air; a narrow, slightly sunken area perpendicular to the air source, that sloped upward on both ends; and a mudbrick on the opposite site of the fire pit forming the back wall, baked in the forge to shades of orange and black and often partially glazed. A depression to the right of the seated goldsmith contained sand, used for cooling heated objects. Several quenching pots were present in each forge, small (approx.
25cm in diameter) and mobile for easy emptying, with ring bases and flaring rims (made by potters to be used as ablution bowls). The water in them, unlike that of the blacksmiths’ pots, was changed frequently and not perceived as having healing value, for it was contaminated with chemicals used in the manufacturing process. The tool kit included small-headed hammers; at least one mold for molten metal, constructed of metal or clay (Fig. 5.2); several small crucibles of specific sizes; several types of pliers; shears; a draw-plate of local or western manufacture for making wire; fine chisels, punches, and files; a small balance and set of standard bronze weights (formerly, hand-made iron weights were used); a piece of sandstone; and a small teapot-shaped oil lamp used as a blowtorch for welding pieces of metal placed on asbestos wire mesh.

Traveling goldsmiths reduced the size of their tool kit as much as possible. Such a kit would contain bellows, one or two anvils, a small sandstone, and the standard iron hammers, chisels, pliers, and shears. The clay cone and mudbricks, water pot, and log for stabilizing the anvils were acquired at the village where the goldsmith was temporarily installed. Such visits lasted three to four months, and the goldsmith usually stayed with a family and used their foyer as a workshop; in return, the smith would provide free services to that family.

The metals used were copper, bronze, brass, silver, gold, and alloys that combine silver, nickel, tin, and aluminum. Additional materials included salt and crumbs of charcoal, mixed with the metal to prevent it from sticking to the crucibles and which can also affect the color of the jewelry; wax for mixing with molten gold (also reportedly to prevent sticking; the wax was removed later); and chemicals to aid in soldering (boraz). Customers usually already owned the metal they wanted worked, particularly gold and silver, but goldsmiths could buy materials from a merchant in Jenn.

Generally, goldsmith techniques are of two sorts: those using physical means such as scoring, cutting, and hammering, and those requiring soldering. Many of the standard pieces are massive in nature—bronze and silver anklets and bracelets, pendulous gold earrings—but the work that the urban goldsmiths were best known for in the 1980s was the delicate filigree that was part of the Moroccan legacy. It fell out of vogue, and then became associated with modern dressing and taste. Village goldsmiths admitted that they were not so experienced in the latter as were urban smiths, so village commissions in Jenn6 were often for this style.

There was a sense throughout the region that pieces made by Jennd smiths were of higher quality than those made in the villages, and in fact the tools and chemicals necessary to do filigree and granulation were not always available to village goldsmiths.

The normal production strategy of a permanent goldsmith shop was to have people present who were at different levels of skill in working the metals, and to provide services and products spanning the full price range in order to capture as much of the market as possible. Each shop operated independently, and within each shop everyone who could create a finished product had a degree of economic autonomy. There was a division of labor, when certain operations on the same product could be best performed by artisans at different levels of expertise, but it was most common to see three to five people all at work on separate projects.
Apprenticeship normally took place within kin groups of goldsmiths, and frequently involved the exchange of apprentices between nuclear families. Exchanges were determined for personal reasons, and did not necessarily take place at the same time; that is, a reciprocal exchange might occur years later when a 'vacancy' occurred in the shop of a relative. Boys began their apprenticeship by working with inexpensive and malleable copper, and graduated slowly through the more challenging and costly metals. Goldsmith apprenticeship paralleled that of the blacksmiths, being group-oriented in a forge setting and usually involving groups of three to five people at different stages of expertise. Because the apprenticeship relationship was usually kin-based, it was relatively informal and dominated by normal age-based hierarchical principles. A youth worked with and for his father (or another male kin or fictive kin) for about ten years, and gradually assumed more and more of his own

commissions within the shop where he was training. Before he was capable of making money on his own, he was supported by his family and received spending money from his father or master-teacher, not in the form of payment for services but as an allowance. As he was able to take his own small commissions for work, he would turn over some of his profit to the shop master for the privilege of working there. So, although profits were made officially by individuals, they were in fact shared between master and apprentice, but not normally between men of the same status. Within the shop all artisans present, except apprentices, had their own tools, and bought their own raw materials. Artisans in the same shop or family often borrowed specialized or expensive tools from each other, but little else in the way of real cooperation took place. Despite the apprenticeship relationships and age-graded hierarchy, goldsmith workshops seemed particularly atomized, however close the participants might have been on a personal level. An explanation for this is the high cost of materials and the sizable profits to be made, which led to rigid accounting. Selling to customers took place almost exclusively in the ateliers themselves. Jenni goldsmiths were normally not a presence in the marketplace, although merchants selling jewelry made elsewhere were. Also, most of the Jenn6 goldsmiths did not find it necessary to head out to the villages to work in exchange for payment in cereal, to supplement their Jenn6 commissions in cash--only the griot smith did this regularly, and as I will discuss below, this was an important economic strategy of many artisans. A number of the goldsmiths claimed to have travelled annually in the past to large villages and towns such as Kouakourou, Matombo, and Mougnia (all chosen for agricultural richness) for stays of several months. Most artisans who were not traveling in 1983 were nearly self-sufficient in grain crops--they cultivated their own fields, or hired RimaiBe and other relatively poor farmers in Jenn6 to do it for them for a share of the crop. Only one of the seven goldsmith families cultivated fields in 1983, although others said that they had done so in the past. This was a significant marker of economic success, for it meant that the majority were able to pay cash for grain, which most people could not do and certainly avoided. Much of the goldsmiths' success seemed to be due in part to trading in gold during hard times; this created
windfall profits for many who bought family gold at low prices from villagers in
economic stress, and resold it in Bamako at the international exchange rate, a rate
probably unknown to many villagers. In 1983 all indications were that the
goldsmiths, as a group, were the most financially secure of the artisans in Jenn6.
Apprenticeship is the "gate" whereby admission to a craft group is controlled.
Those other than immediate kin who are taken into the profession are one
indication of the degree of openness in each group. In the case of the goldsmiths,
apprenticeship practices reveal an affinity with blacksmiths and several
relationships across ethnic lines.
The link between goldsmiths and blacksmiths appears to be a historically deep
one, although an economic gulf lies between them today. One goldsmith stated
that all blacksmith's sons could become goldsmiths, and vice versa; he also stated
that in reality, no goldsmith would ever want to become a blacksmith. The latter
appears to be a well founded claim; no one I spoke with knew of such an
example.
It is also relatively rare, however, that blacksmiths choose to become goldsmiths
or are really in a position to. Only one example of such an occurrence was known
in 1983. It involves the Somono goldsmith, who seemed to be descended from a
line of blacksmiths, although he had denied this in his own autobiography. He had
two apprentices: one, the son of a related Somono blacksmith in Jenn6, and the
other, the adult Fulani griot mentioned above (fam. Koyat6), born in the
Fulani/RimaiBe village of Senossa a few kilometers north of Jenn. The latter
sought to apprentice in Jenn6 because his own father, a griot goldsmith, was
deceased, and because he saw an opportunity to gain access to the more lucrative
urban market through an established Jenn6 smith.
Apprenticeship is related to the issue of control over a finite market. The griot
goldsmith Koyat6 had his own clientele, separate from that of his teacher, but he
also was paid to work for his teacher, not a typical
master/apprentice arrangement. Koyat6 claimed that he remained unable to strike
out on his own in Jenn6. Although apprenticeship across all artisan categories
ends when a master decides it is so, it is rare to find an adult apprentice who
cannot bring about the end of his apprenticeship if he or she so desires. In this
case a financial obligation may have been binding the two, such as a debt between
families, that gave the master a motive for prolonging the apprenticeship. Also,
the apprentice may have been maintaining his attached status in order to continue
sharing in a market that would not yet be available to him on his own; it must be
assumed that he and his master were both benefiting from the arrangement.
It is difficult to break into an established urban market offering the same products
as the other shops because goldsmiths, like many artisans, have the equivalent of
'family practices,' patron/client relationships passed along through family ties.
Geographic proximity between an apprentice and his master is crucial to
references and a continued good relationship. Clients may make their own
decisions about which goldsmiths to patronize, but in fact a certain portion of the
market is almost guaranteed to a young goldsmith if he remains on good terms
with his master. Many apprentices, therefore, remain in the shops of their masters.
as adults, and have an independent business based on the younger generations of
the families with whom their parents have established relationships.
The griot goldsmith in Jenn6 had developed his own clientele, but without gaining
acknowledgement as a full professional. It may be that, because nyeenyBe goldsmiths were all but absent
from Jenn6 in 1983, they were not seen as having a legitimate right to the market
there. The opposite appears to be the case in the surrounding villages, where
visiting goldsmiths and artisans of all kinds were welcomed by villagers, if not
always by any resident artisans. In most villages the skill of a visiting artisan
would be welcome; the problem is that artisans see urban markets as the place to
make more money, especially with luxury items, so they converge in the
relatively lively commercial centers while the rural areas remain hungry for
specialists. Consequently, the griots and other more mobile groups like the Tuareg
concentrate their efforts in the rural markets.
As a final note concerning this example, it was perhaps significant that only the
Somo goldsmith had professional ties to both a blacksmith family and a Fulani
griot family--while none of the other goldsmiths in town had either. The Songhai
goldsmiths, who had large family networks and abundant eager apprentices drawn
from those networks, appeared not to have the desire or need for opening their
shops to "outsiders." References were made to a Dogon blacksmith, a blacksmith
from Burkina Faso, probably Mossi, and a Mossi Koranic student who were
apprentices to Songhai/Arma goldsmiths in the past, but no one mentioned having
Fulani griot apprentices. The Somo goldsmith, who did not yet have a reservoir
of apprentices from which to draw, perhaps had to be more liberal about whom he
invited into his shop. Two generations ago an entire blacksmith family (fain.
Samassekou) converted to goldsmithing (the only Samassekous in Jenn6 in the
early 1980s were blacksmiths), but the details around this conversion were not
forthcoming.
I encountered only one man trained as a goldsmith who chose to take up a second
line of craft work, although many leave artisanry to be merchants. This man
became a base-metal caster (aluminum and tin collected largely from cans),
although his conversion did not take place in Jenn6 itself, but in Saudi Arabia
while on a pilgrimage to Mecca. Significantly, he exhibited the entrepreneurialism
that is associated more with goldsmithing in Jenn6 than blacksmithing. He was
the first to bring this craft to Jenn6, and was teaching it to his sons and nephews,
whose fathers were goldsmiths.
Except for the goldsmiths, no other artisans ever mentioned blacksmiths' sons as
potential apprentices (one exception involving the masons is described below, but
this case probably was not meant literally). The fact that such an exchange could
take place points to the conclusion that some perceived parallel existed between
the two groups, despite the claim of each to the contrary. Blacksmiths' attitudes
toward goldsmiths tended to be patronizing and disdainful--smiths claimed that
their profession gave rise to goldsmithing and was superior to it, and that
goldsmiths did not have the physical and
spiritual power that blacksmiths did. The public certainly does not place them in the same category.

Goldsmiths, for their part, had less physically demanding work, were wealthier than smiths, and had a higher acquired social status stemming from that wealth (e.g., money for the pilgrimage to Mecca, for motorcycles and other high status consumer goods, and elaborate house decorations). They also worked iron on a small scale, and made some of their own tools, whereas they claimed that blacksmiths knew nothing about working precious metals. In truth, many metalworking practices are shared between goldsmiths and blacksmiths, including the working of aluminum and tin, and it may be testimony to the amount of shared knowledge and history between the two groups that they have a familiar, though at times contentious, relationship. Indeed, kinship links exist not only among most of the goldsmith lineages, but also between them and other artisan families in Jenni, although not equally in all directions. Where they exist, they are evidence of compatible, if not interchangeable, social positions, and claims of a shared history.

The Carpenters

The carpenters practicing in Jenn6 in 1983 were descended from Arma blacksmith families, who formerly provided North African accoutrements for Sudanese architecture in addition to their iron working. Of the three carpentry shops then in Jenn6, two were run by Tour6 families (brothers, Songhai/Arma) and the third was run by a blacksmith (fam. Soukoro, step-sons and sons of Arma blacksmith Tour6). The same number was given by Gallais (1967:558), while four are listed by van der Wijngaart (1981:Table 3), but the latter may have counted two workshops owned by the Soukoro as two separate establishments. The carpenter smith Sounkoro was the son of a Somono blacksmith marriage, but his mother later married the Arma smith Babalay Tour6 in Jenn6. Through his apprenticeship to his stepfather, who was both blacksmith and carpenter, he had access to carpentry, and became a specialist in what he called 'modernity,' both in carpentry and blacksmithing. None of these men was married to women who were potters, and all were economically successful. Only one of the three families, a Tour6, continued to cultivate fields of grain. The older of the Tour6 brothers was one of the most successful entrepreneurs in Jenn6; he was trained in electrical engineering and tended to the electrical needs of the town, and owned a movie projector and diesel generator that he used to sponsor a film series in 1983. The entrepreneurialism present among these three families--addressing the most modern tastes in carpentry and smithing as well as electricity and entertainment--made them stand out among the artisans. A counter example for the Somono blacksmiths follows in Chapter 6, that illustrates the community's intolerance of a numu family's past efforts at making money through means other than their smithing.

Most of the carpenters' work was actually making furniture: western-style cupboards, beds, tables, and chairs linked to styles then being made in the more urban centers of Mali. Their workmanship was high quality, whether making simple furniture or ornate veneered pieces, and they commanded high prices from
the most affluent families in town who were their main patrons. The Tourds made
the latticework windows featuring eight-pointed stars, and brass-studded wooden
doors in which the previous generations specialized (Fig. 5.3). There was only a
small market for these items, so only two of the shops produced them. Most
structures in Jenn6 use metal louvers for both doors and windows, and although
these are not made locally, the carpenters imported them into town.
The organization of carpentry was closer to that of the blacksmiths than the
goldsmiths, being based on individual labor, but comprising many activities
where multiple sets of skilled hands for single operations were an advantage. In
the Sounkoro shop several men in their late teens and early twenties worked,
alone and together, under the oldest Sounkoro brother who ran the carpentry as
well as the blacksmithing in adjoining rooms of one shop. Both these enterprises
were overseen, in absentia, by the old Anna blacksmith, Babalay Tour6. In the
two other Tourds' shops were senior carpenters helped by a group of boys in their
teens, all of whom were sons and nephews.
The only observable marriage restriction that applied to the carpenters was the
generally observed one, that it is preferable to marry within one's ethnic group,
and as noted above, marriage between Songhai and Arma is unrestricted and
frequent. Although the carpenters themselves were marrying within their ethnic
group, it was clear from their backgrounds that they descended from a number of
ethnic traditions.
The Slipper Makers
Although Arma slipper makers and Fulani nyeenyBe leatherworkers (sakeh) draw
on a similar set of raw materials, they are distinct groups of men ethnically and
socially (see Frank 1998). The Arma differentiate themselves from the Fulani
artisans by saying that they themselves constitute a profession, and place the
leatherworkers in a category such as "caste" or "race." As of a 1960s survey, 67
"shoemakers" lived and worked in Jernd (Gallais 1967:558). There were many
fewer in 1983 (approx. 15). This seemed to be due to a declining interest in
handmade shoes and related items. Many of the slipper makers had chosen it as a
craft to learn, and did not learn it from their fathers; in Jenn6 this emerged as one
of the criteria for assessing the relative status of artisans. When I was talking to
the imam about the power of blacksmiths, for example, he said that power means
that one can do whatever one wants; if one must marry within a specific group or
take up a specific profession, it is not a sign of power. From this perspective, if a
profession can be
chosen, the terms of apprenticeship are affected as well as the organization of
production. However, it is usually the case that Songhai/Arma artisans had some
direct link to other artisans within the group of their closest kin. Although anyone
among either group could decide to become an artisan and could arrange
apprenticeship, the generalized pattern shows that few people who have not had
parents or grandparents involved in craft production, in any of the crafts
associated with the Arma and Songhai, had the inclination to take one up. The
slipper makers maintained their agricultural activities along with their artisanry.
The Arma made a relatively standard set of articles, concentrating on prayer
slippers, shoes, boots, wallets, and cushions, but the range of decorative motifs on
these typical items was wide. In a study of leatherworking at numerous sites in Mali, the Arma emerged as the craft group with the most conservative attitude toward their products (Frank 1998). When asked lists of what they were able to make, leatherworkers all over Mali typically responded that they could make anything the client requested; the Arma leatherworkers alone responded with their specific list of items, and said that the garanke (Mande for leatherworkers excluding the Arma) should be commissioned for all other articles. This conservatism seems to be related to their desire to uphold what they perceive as a North African aesthetic, still a strong aspect of their identity, and to maintain an exclusivity in their craft that the sakeh did not have (Frank 1987:90).

Leather and industrially-made inks formed the core of the slipper makers' materials. The tool kit, comprising a series of wooden forms around which leather was shaped, and a variety of cutting instruments, differed considerably from the kit of the sakeh.

The Leatherworkers
Leatherworkers, sakeh, provide perhaps the most traditional example of the Fulani griot artisans in Jenn6. They were virtually never involved in agriculture, but divided their time between leatherworking and other paid activities of griots, such as performing family traditions at social gatherings, playing instruments, and collecting the shares of patrons' crops to which they were entitled. The sakeh in Jennd made goods including talismans, or gris gris, leather thongs of various kinds, knife sheaths, Koran covers, bags and pouches. This repertoire remained the same in the hinterland villages, with the addition of saddles in certain cases (which were also made by Tuareg leatherworkers).

In Jenn6 three nuclear families were involved in this work (two fain. Kass6, one fain. Sangho). Gallais (1967) did not note leatherworkers in Jennd, but van der Wijngaart listed four (1981:Table 3). The question of status concerning the Fulani nyeenyBe is a difficult one because it is not artisanry alone that determines the status of the group, but

the larger griot role itself (Bird 1971). The different craft-producing options (and other professions such as maraboutage) give the griots some leverage in terms of their lifestyle and their acquired status, influenced by their financial success and the ways they turn that into community respect, and thereby compensate for an ascribed low rank. Locally, several other craft-producing options existed among the nyeenyBe in addition to goldsmithing and leatherworking. These included becoming lobo or laabo, artisans who carve wood on a relatively massive scale into items such as oxen yokes, large mortars and pestles, and food bowls; and becoming maabo, wool weavers (Tamari 1995 includes an extensive discussion of artisans' names in several language groupings).

Leatherworking went on in Jenn6 in the marketplace on a daily basis, as well as in the homes of the sakeh. Most of their commissions derived from the manufacture of gris gris; the customer would approach the leatherworker with the contents of a talisman--a paper on which a marabout had written a passage from the Koran, or a cocoon or cowrie, an object with protective or curative power--and the role of the leatherworker was to enclose that article in leather and hang it on a thong for
wearing. The leatherworker's handling of the contents was not a meaningless act; he had to be discrete about the purpose of some talismans, and handle the contents with respect.

A steady demand existed for this and other leatherwork, but it was not a lucrative craft relative to goldsmithing or boat building. The Jenn leatherworkers travelled routinely to the countryside, both in search of customers for their goods and to perform griot services for specific families (mostly Fulani and Marka) with whom they had relationships often spanning several generations. These visits, made at harvest time or immediately after, could result in nearly a year's supply of grain, and accounted for more of the family's food supply than their leatherworking provided. The relatively low income levels of the leatherworkers were supplemented by their wives, who were frequently potters and performed other griot services.

The Weavers

Weavers in the Jenn6 area produced long strips of cloth on strip looms (Fig. 5.4), and depending on whether it was cotton or wool they used, could be divided into two categories. Although the weavers claimed that the two groups were not mutually exclusive, but that men gravitated toward one or the other just by preference, it was usually possible to separate weavers on the basis of ethnicity. Fulani griot men comprised the majority of the wool weavers (mabo). Wool weaving was relatively uncommon in Jenn6 itself, and was done predominantly in local Fulani/RimaiBe villages. A weaver might be the son of a nyenyyBe goldsmith or leatherworker, and have sons who chose to become goldsmiths or other specialists apart from weavers. Griots usually had no access to farm land, so wool weavers acquired grain by exchanging their finished products for it in their own village and others, and also by performing various griot activities. Some blankets that contained both cotton and wool fell under the purview of the wool weavers (Fig. 5.5). As with the other male griot artisans, weavers' wives were often potters, although the women might also specialize in lip and gum tattooing, excision, hair plaiting, or wedding-related activities.

The cotton weavers (called malejo in Fulfulde) were more diverse in terms of their ethnic composition than any other of the local craft groups. They were relatively numerous in Jenn6 during the period of field work, probably due to the high, year-round demand for cotton cloth and blankets, but their numbers fluctuated drastically depending on the season; many were not Jenn6 natives. Those in Jenn6 were predominantly Dogon, RimaiBe, Bamana, Songhai, and griots of the Songhai (called horso). Only the Fulani had no attested experience of cotton weaving. Cotton weaving was considered a low-status occupation in Jenn6; it was said that earlier in the century, only those descended from enslaved groups did it. In 1983 the cotton weavers were usually farmers from relatively poor families who needed to supplement their incomes, and who did not have access to more lucrative means of earning money; they all seemed capital-poor. I encountered no cotton weavers who were not full-fledged farmers as well, and they did not have the means to hire others to work their fields. They were farmers in the first instance, and craft producers in the second. Those who came into Jenn,
to benefit from the stronger cash flow relative to that in the villages, always left to attend to their agricultural responsibilities during planting and harvesting months. "If we do not go home to tend the fields, our families come and get us," one weaver stated. Many come in from as far as the Dogon region, which is always cash-poor.

All weaving, cotton or wool, was done by individual artisans on strip looms (see Schaedler 1986). There were no permanent weaving workshops in Jenn6, and no economically integrated group or hierarchy of weavers. The work was done solely on an individual basis. A weaver would set himself up under a small pole-and-thatch sun-shelter, which provided a structure from which to suspend the loom mechanism. The tool kit consisted of the small hanging loom and a weight--usually a large mudbrick or piece of sandstone--to hold firm the reserve of cotton at the far end of the warp. Some weavers set the reserve on a small woven mat or wooden rack to protect the material from the ground. The warp itself was uncovered, and could extend in front of the weaver for more than 1 Om. The small size of typical urban compounds sent weavers in Jenn6 into empty lots or into the streets to set up their looms. It was common to find a group of weavers working side-by-side so they could converse, but some men set up their looms alone by their houses. Van der Wijngaart (1981) counted 17 clusters of weavers in Jenn6, a total of 73 individuals. In villages, where larger courtyards are typical, more men seemed to work alone with their families as company, although groups of looms sat outside the compounds. Their placement in villages tended to be where artisans would have activity to watch while they worked, such as across from the marketplace or facing a major thoroughfare into the village.

Customers seemed to find weavers rather than vice versa; much of the weaving was done on commission, where the customer took raw materials to the weaver and bought his labor. The weaver would give an estimate of the length of time the job would take and the cost, depending on the level of detail desired. A standard measure of cloth, enough for a single outfit, took from one to three days to weave. Prices did not vary significantly between weavers in one town or village, but did between settlements; one of the attractions of Jenn6 for Dogon weavers was that weaving was paid better in Jenn6 than in the Dogon area. When weavers were between commissions they might invest in materials and weave strips they would later sell to a merchant or try to sell themselves. A merchant would buy one very long cotton strip and have it cut and sewn into pagnes (Fr., used widely in the Western Sudan), or standard measures of cloth, by a tailor or hand-sewer, and would then sell them in the market or door-to-door. Many weavers left Jenn6 to travel to villages with their looms and perhaps a small stock of finished strips, in search of commissions and grain.

In sum, the wool weavers, who were predominantly Fulani griots, and the cotton weavers, who came from relatively poor farmer families, operated on an individual basis economically but tended to cluster together for company. It was possible, but rare, to find wool weavers who were not Fulani griots, and Fulani griot weavers who worked cotton. There was no social expectation within either
group of weavers to remain in that particular craft or to raise the male children as weavers. Due to the steady market for cloth and blankets and the low cash investment in equipment, however, weaving remained a relatively attractive supplemental income option for the non-affluent, because it was based largely on the selling of labor rather than the articles themselves.

The Boat Builders

The boat builders, or piroguiers (Fr.), who numbered approximately nine in Jenné in 1983 (also van der Wijngaart 1981:Table 3), were one of the most homogeneous artisan groups in this region. They were exclusively Bozo men, most of whom learned their skills through elder male relatives. Although it was considered a chosen profession, pirogue building tended to stay within families as did many of the crafts. When apprenticeship was arranged between boat builders and non-kin Bozo youth, it was informally conducted, lacking official contracts or heavy social obligations. Piroguiers married Bozo women, who were not expected to have pre-existing ties to artisan families, and who were not themselves involved in craft production. While boat builders' sons were encouraged to learn the profession, they were under no obligation to do so.

Normally each artisan worked independently from the other adult artisans, with the exception of social visits that might include lending a hand. Apiroguier rarely worked without the company of a cluster of boys, however, only some of whom were officially apprenticed. The work was done outside, under a pole-and-thatch shelter, and like many shaded outdoor activities, tended to attract groups of men and boys who socialized while the artisans worked. The Bozo view boat building as an extension of their propriety over the waterways, and there appeared to be no particular social status, high or low, associated with the profession, perhaps in part because of the pervasive use of and familiarity with boats within Bozo society, the respect boats themselves command, and the relative lucratively of the craft. The piroguiers carried on subsistence activities along with their manufacturing, mostly the usual fishing and farming. Most men worked on boats year round, increasing production during the rainy season and the wet months that follow, when use and therefore demand was highest. With the intensive work characteristic of the rainy season, a piroguier could produce three small pirogues, each from 5-10m long, per month. Much ofapiroguier's work was commissioned by customers, usually Somono and other Bozo, the fisher groups who own the great majority of boats. Few builders could afford to tie up capital in a boat built on speculation. In 1983, builders asked between 250,000-300,000 Malian francs ($275-$350 at the exchange rate then) per average small pirogue (Fig. 5.6). They continued to provide service on their boats as long as it was needed, and wellcared for boats could be expected to last 15 years.

Bozo boats, whether small pirogues or large, covered, motorizedpinasses 10-20m long (Fig. 5.7), are variations on the same design, incorporating a wide flat hull and a symmetrical profile pointed at both stem and stem. They were built generally on the edge of town, where room was available to construct the shelters, and where water was easily accessible. The primary wood used, known as lengeh (Bambara), was imported to Jenné in long planks, 3-4cm thick. Before the
depletion of large tree resources in the Jenn area, the wood was prepared by the 
Fulani wood carvers (lobo) and the boat builders themselves. At what point this 
became unfeasible is not known precisely--"Good wood used to be available here,
but it was used up a long time ago," an informant stated--but the transition to 
imported wood occurred sometime in the last generation of boat builders. In 1983 
wood was originating around Bamako and was processed there with electric saws,
which added to the cost of the boats. The piroguiers who were middle-aged in 
1983 had prepared planks by hand when they were younger.
All of the other materials used to make the pirogues and 

pinasses were produced locally. The thousands of nails found along the seams 
were all made by the blacksmiths in Jenn6 and generated considerable income for 
them, as they could make the nails in their spare time year-round knowing they 
would be bought in massive quantities during the wet months of intensive boat 
building. These nails were about 10cm long, square in cross-section, and sharply 
pointed; the semicircular head tapered to a thin cross-section at its periphery. 
Other materials used comprised strips of fabric, lengths of cordage, nylon net line,
and a glue made from shea butter (in French, beurre de kariti, a multi-purpose fat 
derived from the tree Butyrospermum parkii) combined with ground baobab seeds 
(Adansonia digitata, see Traoré et al. 1980:20). Fabric soaked with the glue was 
placed between the planks and any other seams before they were nailed, and the 
cord (or net line) was used by piroguiers to sew the fore and aft halves of the boat 
together, to reinforce the nailed joins at the center but maintain the flexibility 
along the boat's length. The shea butter was applied liberally over all the boat's 
surfaces during manufacture. As it soaked in, it gave flexible strength to the 
boards and helped to waterproof the boat. Owners were advised to continue to 
treat the wood with this mixture throughout the life of the boat.
Virtually all of the boat builders' tools were made by the blacksmiths: axes, saws,
hammers, and awls were the major ones. The workshops were not organized in 
any formal way; the boat itself was the work station, and the builder circled 
around it moving his equipment. A freestanding bowl of water was always present 
beneath the shelter. A small charcoal fire was kept burning in a portable 
container, usually an old metal bucket or a broken pot. Depending on what stage 
of construction the boat was in, different sized awls might be heating in the fire,
used to prepare nail holes, and the fire itself was used to bend planks to the 
appropriate arcs. Large chunks of sandstone (25-30cm on a side) were used to 
hold down or put pressure on planks for various operations; these were larger 
pieces of stone than were associated with virtually any other craft work (see S. 
McIntosh 1995:246-7 for a discussion of sandstone from Jenn6-jeno). Boat 
bUILDers also used sandstone to sharpen the iron tools. The work areas were left 
intact during the night; the tools themselves were carried home, but the fire and 
water containers, sandstone, planks, and the boat were left out in the open. Many 
such work places were not protected physically, but depended on the public's 
respect and the security provided to the artisans by gris gris.
Construction of the boat was based on the cutting, bending, and fitting of wooden 
planks. Planks were cut by eye, with the builder using his own feet to measure
lengths. The proportions of the boats were relatively standardized, and were part of the piroguiers' specialist knowledge. Once the planks were cut to the appropriate lengths, any irregularities in them were repaired, by chopping out irregular holes or thin areas with an adze or axe (Fig. 5.8), and inserting a tightly fitting wooden plug with the help of fabric, glue, and nails. The boats were made in two halves, joined as one of the final steps. The bottom of the boat was prepared first, and the sides were fitted onto it building up from the bottom. The side planks were bent to the shape of the bottom; the builder alternately soaked and scorched a plank in one spot, and then bent the wood over a fulcrum (usually a piece of sandstone), using his own weight and that of some of his onlookers, or the boat itself, as pressure (Fig. 5.9). Once the wood was bent to the desired arc it was fitted onto the bottom boards, and then additional planks fitted onto it.

Concluding Comments
Before proceeding to the more detailed chapters concerning blacksmiths, potters, and masons, it is useful to underscore the question of artisan variability and its links to issues of identity and social status. Jenn6 in 1983 was but a small slice of the Middle Niger, historically and geographically. Even so, the degree to which the artisan groups in Jenn defied generalization in terms of their status and identity, not to mention their technical systems overall, was an important conclusion of this research. Contemporary artisans are not bound in a single, clear-cut social stratum. This conflicts with the standard representations of Sudanese (Mande) society, based on the rigidly vertical social model (noble-artisan-slave) described by French bureaucrats and ethnographers who came to this area in the 19th and early 20th centuries (C. Monteil 1903, 1971 [1932]; Delafosse 1972 [1912]; Conrad and Frank 1995b). Neither the archaeological nor historical sources that predate the French involvement provide a solid grounding of the place of artisans in Sudanese society, and surely French colonial rule, the end of it, and economic and environmental stress since have affected the wider social structure of the Western Sudan and Jenn6. Unfortunately, there remain gaps in knowledge about this area in recent times such that the social histories of even major centers such as Jenni are virtually unknown. Certain specifics can be agreed upon: it is quite probable, for example, that cotton weaving was in the realm of slave populations until fairly recently, as was usually reported. Relative degrees of endogamy were and are a social reality. Certain groups--griots, for example--bear a nearly tangible social difference from average, socially unmarked people. Nevertheless, in a setting that has included an extraordinary number of interwoven groups--ethnic, craftproducing, subsistence, commercial, religious, other specialist--for as long as can be discerned (Tamari 1995, R. McIntosh 1998), the three-tiered model is inadequate for the contemporary period and arguably for many times in the past, if it was ever a fair representation. For my purposes in this study, it is not just that the model was an oversimplification. I think its rigidity contributed to outsiders' thinking about Jenn6 as timeless, and its population--particularly the artisans, for this case--as
lacking in agency. My view, based on this study, is that the artisans were and are shapers of an extraordinarily dynamic and heterogeneous setting. The social intricacies of artisans—who were among the founding members of the population of this region and who today, along with related specialists, remain crucial to this society both materially and metaphorically—need to continue to be explored (Conrad and Frank 1995b). I will take up the issue of artisans' social status and identity again in the concluding chapter.

Chapter 6: The Blacksmiths
If in Jenn it is the masons who have attracted the most scholarly and other special attention by virtue of their stunning architecture, in Africa more generally it is ironworkers who have received the steadiest notice. With the sense that iron smelting as a practiced technology is very nearly extinct, the number of studies documenting smelting in particular has multiplied in the last several decades, particularly those by archaeologists. I begin with a quick review of the most influential work on iron working.

Two recent, excellent reviews of the research on African metalworking are by archaeologists Childs and Killick (1993), and Miller and van der Merwe (1997), both of which cover iron in the most detail. The history of research on African ironworking always begins with Cline's survey of African blacksmiths (1937), still widely respected as a superb overview of smithing, a compilation of ethnographic data collected mostly by colonial officers from all over the continent, at a time when smelting was still taking place in many areas. Clement's slightly later review (1948) is narrower in scope, but also useful especially for francophone West Africa. L. de Heusch (1956) presented an important structuralist study of ironworking symbolism in Africa. Archaeological interest in African iron production, at first rooted in questions about the Iron Age, began to take off in the 1960s; a number of short descriptive studies appeared beginning at that time. This interest seemed to parallel a growing one in African art history concerning the work of artisans, rather than the decorative and other arts that had always been the focus. P. McNaughton (1975, 1977, 1979, 1988, 1995), from the 1970s onward, helped change the trend in West African art history towards including the seemingly more mundane articles of material culture, focusing attention on West African blacksmiths, particularly those among Mande cultural groups, and underscored the multiple artistic, symbolic, ritual, and material realms to which smiths contributed. French anthropologist C. Ardouin also contextualized the smiths in the Western Sudan (1978) in this period. Meanwhile, the work of archaeologists Schmidt (Schmidt and Avery 1978) on Great Lakes ironworking, de Maret (1973, 1980) on central African blacksmiths, and van Beek (1982) in Cameroon set the stage for the groundswell of archaeological interest on living metalworkers, their technologies, and the complex symbolic milieux around working iron in particular. Haaland and Shinnie (1985) compiled an edited volume about ancient and contemporary ironworking. Three documentary films have become part of the ironworking canon in Africa: The Blooms of Banjeli: Technology and Gender in West African

Two works by researchers other than archaeologists stand out. Historian E. Herbert (1993) produced an influential and sweeping gender- and age-based analysis of the core values surrounding blacksmithing in West Africa, and related it to many techno-symbolic transformations, including pottery-making. C. Kriger (1998), also an historian, provides another major, more focused study on blacksmiths, based on research in 19th-century west central Africa. She draws the attention to forgers, rather than smelters, and their key contribution to the "mystique" of ironworking within their societies.

After a review of the archaeological and historical evidence pertaining to iron working in the area of Jenn6, I present the ethnographic material on blacksmiths collected in 1981 and 1983.

Iron and Blacksmiths: Archaeological and Historical Evidence

In the archaeology of Jenn6-jeno and in the surrounding region, we have some evidence pertinent to the question of iron-making, perhaps as a specialization, and its history there. Although no raw iron sources (lateritic soils) existed within the Inland Niger Delta itself or within about 50-75km of Jenn6-jeno, iron smelting and forging were taking place there from the site’s founding in the 3rd century B.C. onward, in addition to subsistence activities (S. McIntosh and R. McIntosh 1980, 1:15-16, 1986:427), part of a larger but not yet pan-West African adoption of iron-making technologies in this period (Miller and van der Merwe 1994, de Barros 1997). Raw iron from south of the Inland Delta could have been exchanged for subsistence goods from the area of Jenn6-jeno and eventually also for exotic Saharan materials from even further afield (R. McIntosh and S. McIntosh 1981:20-21, S. McIntosh 1995). For the historic period, the modern town of San, was a source area mentioned in colonial documents and was still cited by blacksmiths in 1983 as a source they remembered from earlier in the century, whence smelted iron was shipped to Jenn6 for forging. The presence of smelting debris during certain periods at Jenn6-jeno means that ore was not being smelted at its point of origin, but transported many kilometers to this area, perhaps because smelting knowledge was in the hands of specialists concentrated
around Jenn6. One way to maintain a monopoly on specialized technical, and spiritual, knowledge would have been to do all the smelting at home (S. McIntosh 1984). As part of a more general pattern, control over technical systems is part of many early urban patterns (e.g., Childe 1950, Wells 1984, Brumfiel and Earle 1987b).

It is worth noting that although there may have been some shifts in the nature of iron production, the total output that has been determined for the area, based on slag counts per unit volume of deposits, did not go up over time. This was the case despite the burgeoning of population and assumed demand. However, iron production areas feeding any increased demand may have been located away from Jenn6-jeno (S. McIntosh 1995:279). Despite the presence of slag throughout all levels at Jenn6-jeno, S. McIntosh has been able to discern what may be a changing pattern in the nature and location of metal production there (ibid.:278-9). Against what she calls "the background noise of slag" (ibid.:278), there is abundant evidence in a central area at Jenn6-jeno for iron- and bronze-smithing debris, and possibly a shrine related to iron production (Feature 21, ibid.:49), after the 9th century A.D. in Phase III (A.D. 400-900; S. McIntosh 1999:70), when the site begins to reach its height of prosperity and scale. This differs from evidence dating to earlier phases, where no such concentration is evident, but a number of smaller zones of production can be identified; at some periods no concentrations of debris were found, despite the omnipresent low-level slag scatter. Adjacent to Jenn6-jeno, the site of Hambarketolo shows evidence for ironworking in Phases I/I1 (250 B.C. to A.D. 400), and ironworking debris is also on the surface of nearby Kaniana (ibid.:35), during Phase IV (A.D. 900-1400 A.D., ibid.:70).

It is suggested that the Phase III concentration at Jenn6-jeno may be evidence for a zone of production associated with organized specialists (ibid.:278). If the shrine, which includes numerous pieces of arranged sandstone, ceramics decorated with serpent motifs, and a pot containing 38 spherical sandstone grinders and a granite handaxe, is associated with smithing (men from Jenn6 working at the excavation identified it as a blacksmith's 'rainshrine' when it was uncovered; ibid.), it suggests the position of metalworkers at a nexus of ritual practices and utilitarian manufacturing practices which clearly need not have been a dichotomy in that context (Childs 1991b, 1988; Childs and Killick 1993; Herbert 1993; D. Miller 1997). Although this type of archaeological evidence cannot be linked definitively with specialist metal workers who bore the kind of heavy ritual associations we know from this area historically and in the present, it is undoubtedly suggestive. Evidence for smithing is found in this specific part of the site from the period of the 'rainshrine' through the site's abandonment (S. McIntosh 1995:278).

By the 6th to 7th centuries A.D., copper and bronze working (smelting, molding, hammering) are being carried out at Jenn6-jeno as well; a gold earring suggests goldworking (assuming it is happening on-site) by the ca. 8th-9th centuries at the latest; and brass is present from the 9th century until the abandonment of the settlement (ibid.:277). Iron for decorative and utilitarian purposes is typical of the earlier centuries, while iron appears to phase out for decorative use once copper is more available (ibid.:277-8).
Abundant but still inconclusive evidence for iron working has been found throughout the hinterland. Evidence for smelting and/or smithing activities exists on the surface of about 75% of the hundreds of archaeological sites surveyed (S. McIntosh and R. McIntosh 1980, II:414), especially at sites near the mean of the size range. Sites measuring less than 0.5ha have no evidence of smelting, but on sites measuring 0.5 to 1.0ha, slag is scattered heavily over the surface. In the next size category, 1.0 to 5.Oha, slag is rare, and in the category of sites greater than 5.Oha, slag is always present but not necessarily in large amounts (R. McIntosh 1979:293). Hypotheses about specialized production based on surface data are tentative, however, because until the results of subsurface investigations are available, there is no control over the chronology of those remains. M. Clark's (1998) forthcoming research involving subsurface testing of hinterland sites will provide additional data for addressing the relationship between clustering and specialization, and if there is a statistically supportable link, at what time periods (pers. comm., September 1999).

Apart from the glancing treatment of blacksmiths that occur in the major ta'rikhs of the Western Sudan, there are only a few substantive historical details available about blacksmiths in Jenni. Tamari (1991) reviewed and provided a historiographic analysis of 'casted' specialists in West Africa generally, with some evocative conclusions. She writes, "The fact that similarly named blacksmiths and leatherworker groups, as well as bards, are found among virtually all the far-flung Manding populations suggests that each of these groups appeared, and became an integral part of Manding social structure, well before the final collapse of the Mali empire c. 1600" (ibid.:235). She goes on to suggest that based on an analysis of the Sunjata epic, vocationally-specialized groups that would change into endogamous ones appeared among the Manding in the 13th century, following the Malinke/Soso war (ibid.). This would not necessarily shed direct light on events of the Early Iron Age, but it at least provides some time depth to the modern institutions.

Based on time spent in Jenn6 in the first years of the 20th century, Monteil wrote about Jenn6's metalworkers as a 'caste" with the blacksmiths and goldsmiths the most significant among them; he refers to them as "experts," impressed with their high standards, and discusses forging, not smelting (1971 [1932]:249-52). He dwells on the elegant doors in Jenn6, constructed of planks with decorative metalwork, made by the smiths. This is followed by a brief description of the blacksmiths' forges: generally open air, under a shelter, and outfitted with a simple anvil and series of tools, including pots in which to quench the hot metal (ibid.). Monteil lists the smiths' function as including the making of knives, axes, spears, hoes, padlocks, a few kinds of jewelry, and gun repair (ibid.:251).

In Jenn6, oral traditions hold blacksmiths to be the progenitors of all other craft groups. This position does not, however, carry high social status or wealth for the
seven major blacksmith lineages who were present in the town and its surroundings in the early 1980s. To the contrary, smiths as a group are among the poorest major craft specialists in the vicinity of Jenn6, despite the economic success of certain families. The blacksmiths' real power, even if it is undercut by social ambivalence, lies in the link they provide for the faithful to a body of knowledge, beliefs, and practices perceived as predating Islam, French colonization, western government, and modern medicine. Blacksmiths were providers of some of the most important physical and metaphysical needs of this community (Fig. 6.1).

Provisioning the population with hand-made iron goods-tools, household implements, weapons--was the most materially evident contribution the blacksmiths made to the daily functioning of this agricultural, still largely nonmechanized society. Smiths were called upon to pass judgment in disputes, a role they may have had more frequently in the past (see McNaughton 1988, Herbert 1993). Blacksmiths also made and sold small metal objects that become incorporated into talismans, or that can act alone as such--gris gris--in response to an infinite number of personal needs brought to them by both men and women: the desire to conceive children or keep children healthy, punish a co-wife, attract the desired romantic partner, guarantee political victory, or even kill enemies. The cost of such talismans got larger as the stakes were perceived to be higher, and also according to the finances of the client; a case I knew of involving a desired political appointment cost the client several hundred dollars. A smith's relationship to a client in these cases was like that of a priest to a confessor--confidentiality was crucial. The clients chose smiths for this kind of job on the basis of the smith's reputation, discretion, and former dealings with the client. The talismans are usually made to be worn in a leather amulet, carried in a pouch inside one's clothing or actually used to prick the skin of someone for good or bad intent. Marabouts were even more prominent practitioners of sympathetic magic and medicine in Jenner and often commanded large sums for far-reaching requests requiring much spiritual power. In the 1980s it appeared that smiths were less sought after for these purposes than were marabouts. Blacksmiths, especially the older ones, continued to derive prestige from preparing gris gris, however, and this remained a critical part of their identity, one of the functions that linked them with their own and their clients' sense of history. The eating of fire and immunity to burning were blacksmiths' traits talked about frequently, usually in the past tense. One man in Jenn6 was both marabout and blacksmith, and was considered an extremely strong figure in the magical sphere. He did not, however, derive wealth from this quality, seemingly due to a general sense of suspicion people entertained toward him. Throughout West Africa, blacksmiths bear special status in the context of their respective societies. One of the most compelling aspects of this status is that while widespread, it is expressed in diverse ways, from veneration to ostracization (Cline 1937, C16ment 1948, de Maret 1980, van Beck 1982, de Barros 1986, Childs and Killick 1993, Herbert 1993, McNaughton 1995, Kriger 1998). In Jenn6 the separation is blurring, although remains nonetheless. The smiths of 1983 were not isolated in designated parts of town, although some lived in
clusters; they married women who were not necessarily the daughters of blacksmiths; and they were part of the permanent population of Jenn6. Yet, they remained different from average farmers in subtle ways. They were opinionated about each other, and townspeople had strong feelings about them. The following is a description of the composition and character of the blacksmith group in 1983; their kin-based organization of production; the technical system of iron forging; and their marketing and migration patterns, including an account of the itinerant Tuareg metalsmiths who spent time in Jenn6.

A Consideration of Blacksmith Identities. Of the approximately 16 adult blacksmiths who were permanent residents of Jenn6 in 1983, all but two identified themselves as Somono, and also numu, which I will discuss below. The exceptions were a third-generation Arma blacksmith, and his step-son, who called himself Marka although both his parents were Somono. Both of these men married into Somono families. The smiths worked in eight permanent shops scattered in the residential quarters of town: one each in the quarters of Kanafa and Algasba, two each in Djoboro and Yoboucaina, and three in Seymani (Fig. 4.2). No official power or status hierarchy, or guild structure, bound these families. It was primarily the mutual identification of blacksmiths that held them together as a body, which I will call a community or group, through pride in a shared tradition and the relentlessly critical evaluation to which they subjected each other's performance as craft producers. Each smith, however, carried a strong set of standards that governed his own personal and professional life and that permitted him to sit in judgment of the other community members. The community was maintained internally through the passing of the blacksmiths' skills from father to son, and from slightly preferred marriage to women from blacksmith families, which bound families together through affinity and served also to bring into the group new contacts and new blood. The sense of the smiths' community was also maintained by the rest of the population, among whom there were enough individuals who felt strongly about the historical and spiritual roots of smiths to perpetuate the separateness from outside. Castes are a common designation in the Western Sudan (e.g., Vaughan 1970; Tamari 1991, 1995). I refrain from its use here because the Jenn6 blacksmiths (and potters) have married into several different economic and social classes of people, have been integrated into the Somono, and although in some cases there is family pressure on children to learn the occupational skills of their parents, this is becoming less important. Several generations ago the designation 'caste' arguably may have been appropriate, but it is no longer so.

Despite the absence of a formal status hierarchy of families or individuals, I discerned several coexistent rankings of blacksmith families based on family reputation, as reported to me over the course of the period of study. Reputation is of course both subjective and dynamic, a combination of qualities smiths judge each other by, including the character, piety, and dignity of the men and women in the family and their renown as artisans. The hierarchy that mattered most within each workshop was age. In the context of the entire smith group, however,
an individual's age remained critical to his status, but status was affected strongly
by the entire family's position.
The smith community tended to cluster in the adjoining quarters of Seymani and
Algasba. This group of
independent residences and workshops belonged to men of the Kass6,
Samassekou, and Soukoro families, women who married into these families, and
their unmarried children. Women maintain their maiden names after marriage,
and children bear the surnames of their fathers, which assists in tracing family
relationships. These three family names were associated throughout this region
with blacksmithing; in the wider area of Jenn6 influence, people considered these
three families as headed by elderly smiths native to Jenn6 itself. The Kass6 and
Samassekou families claimed to be the oldest blacksmith lineages there, a claim
substantiated by the other smiths (members of either of the two families involved
claimed that their own particular lineage was slightly older). The two families
cited the abandoned site of Kongusa, only 5km northeast
of Jenn6, as their former domain. Soukoro was said to be an originally Bobo or
Minkoro name, implying a nonMuslim family heritage, something that could
bring low esteem to a family if conversion to Islam is considered or known to be
recent. Both Bobo and Minkoro, or Minianka, are Mande ethnic groups from
outside the Inland Delta, and populate an area associated with smelting in the last
centuries, the Benedougou area near San. A connection may exist through these
families to the specialized smelting (and/or blacksmithing) groups whom the
smiths refer to now as extinct. Kass6 is a widespread blacksmith name, and is a
common name among Fulani griot lineages as well.
The four shops outside what could be considered the core area above included
two run by two other Kass6 families, who claim to be related more closely to each
other than either family was to the Seymani Kass6s, and both of whom also
claimed roots in Kongusa, the ancestral village site. The remaining shops were
run by a Bilakoro family that is unique in this area, and one Touri, the latter being
the above-mentioned Arma lineage. The name Bilakoro means "one who is not
circumcised" in Bambara; several smiths and other informants pointed this out to
me (also N'Dia6 1970), implying ancestry among the nonconverted to
Islam. Bilakoro and one other respondent said that this family descended from a
Somono piroguebuilding lineage (Somono boat builders were no longer in
evidence; it was the Bozo who controlled boat building exclusively in Jenn in the
1980s and have reportedly for several generations at least). Many people in Jenne,
of course, had relatively recent, non-Muslim ancestors, although it was not
something Muslims tended to talk about. That this Bilakoro blacksmith was
marked this way by his name was of interest to them, perhaps because this family
was not closely tied into the other families by marriage; that family also had a
tragic history of childrearing, having buried 12 out of 13 children born to his only
wife, a potter. Also, ironically, the elder smith of the Bilakoro family was a
devout Muslim marabout, the only Jenn blacksmith who was a professional
religious scholar. He was reputed to be extremely powerful, capable of freezing
people in their tracks; he was also the only smith who insisted on demonstrating
to me the reputed immunity of smiths to bums from the forge, by placing his hand directly on red-hot iron.

Tour6 is predominantly an Arma family name, although it is sometimes found among other ethnic groups, notably and expectedly Sonhray. To be Arma in Jenn6 means to have descended from the Moroccan conquerors of the Inland Delta in the 16th century, which presupposes Sonhray ancestry as well due to intermarriage. A selection of non-Arma informants in Jenn6, when asked about the ancestry of Arma blacksmiths and carpenters in particular, always made the point that most of the people who considered themselves Arma were in fact descendants of the Moroccan lower class of artisans and slaves brought with the elite in their conquest of the Songhai Empire and

Inland Niger Delta. It follows that a certain amount of craftwork, including leather slipper-making, embroidery, and gold-, silver-, and bronzesmithing are still prevalent occupations of the Arma, as discussed earlier. The marriages of this lone Arma smith to three Somono women of blacksmith extraction resulted in the passing of his shop's management to his stepsons by his second wife, who were Somono by her first marriage to a Somono blacksmith, and to his own sons by his second and third wives. The impact of the single Arma family was felt in a number of ways regarding innovation and social relations with other artisans, discussed below.

Numuw and Somono/Korongoy. The nature of the identification 'blacksmith' differs from other professional identifications as well as ethnic ones. One of the first questions asked each smith in the opening interview concerned his ethnic affiliation; the answer I first expected was Korongoy, the Somono word for themselves in Songhai; Somono is the more prevalent Mande term. In nearly half the 16 cases in Jenn6, the smith answered numu first, for ethnic affiliation. Numu, again, is the Bambara (Mande) term for blacksmith, and derives from the Bambara word meaning power (McNaughton 1974). The other half indeed answered Korongoy. The men who answered numu were always asked the question again, stressing that it was specifically their ethnic group that I wanted to know. Of these, some repeated numu, and others said Somono. To me, the significance of the answers lay not in any definitive division among the smiths, but in the variation among a relatively small group of men, all related in some way, all drawing from a shared cultural repertoire. In a contrasting case, the Fulani griots would without fail list their specialization name as their ethnic group; they would never say Fulani. But a farmer would never have given his profession with his ethnicity, nor would a merchant, a marabout, or a mason. What was clear was that to be numu continued to have tremendous significance, enough to explain the attitudes about blacksmith marriages held by both smiths and non-smiths, and the perpetuation of myths and beliefs about blacksmith powers. Yet the increasing slackness with which endogamy was practiced was the flip side of this.

Marriage Patterns. The self-identification of numu was therefore an extremely weighty one. Many smiths married the daughters of other smiths. When they did not, they tended to marry Somono women born to fisher/farmer families of
moderate means, although there were important exceptions. I questioned numerous Somono about how they would feel if their daughter wanted to marry a blacksmith. The usual response was that their daughters were free to marry any good Muslim man, but in practice parents exerted considerable influence over their daughters' choices of husband. Throughout the region of Jenn6, marriages occurred primarily within ethnic groups, although were taking place between groups more and more frequently. Nevertheless, no one would tell me that it would not be possible for a blacksmith to be a prospective in-law Somono families with prestige and money in Jenn6, of which there were a number with ties among the Muslim elite as well, were adamant their daughters would not find marriage to a blacksmith an attractive opportunity: the pay was low, and the work was hard, noisy, and dirty. The almost-refrain of "hard, noisy, and dirty" was repeated to me numerous times. Still, it would be a possibility; Somono women and men from unmarked families frequently married into those headed by smiths, and had been doing so in all the generations then living in Jenn6.

Blacksmith Social Organization. The blacksmiths were a unified group in Jenn6 insofar as they were uniquely responsible for the production and distribution of iron tools and other iron objects (except for the input of the Tuareg smiths), but their degree of unification extended only as far and as strong as the family ties involved in each case. The blacksmiths did not comprise a supra-familial organization. Financial investments and decisions were made generally on an individual basis within shops, and further, each adult family member working in a shop earned a living as an individual. Little division of labor occurred among adult blacksmiths. The number of smiths in Jenn6 in 1983--16--was said to be consistent with the size of the smith group in the collective memory, but is probably smaller than at times in the past when they were responsible for more of the material culture than today; Monteil (1971 [1932]) describes the smiths briefly but does not indicate the size of the population.

The blacksmiths from the eastern part of town, who formed the core social and affinal group, assembled once a week in the Monday regional market in Jenn6. They secured a place on a side street, several blocks from the main marketplace, adjacent to what was then the closed government store, SOMIEX. This location lent an air of westernization to the smiths' products. The teenage sons of the smiths, who were responsible for much of the smaller fare laid out every week--pins and nails of all kinds, knives, hoes, blades, hinges--sat by the displays, which were arranged on cotton blankets on the ground. The adult men, dressed in their best robes, lined up across the street in the shade, supervising the market activity and talking. This scene never changed, although individual smiths might be absent if they were traveling in the countryside, and it was the one occasion at which a quorum of the smiths met regularly. The smiths who were rarely present on these market days--Sekou Bilakoro, Sont Kass6, and Babalay Touré--were socially estranged from the body of mostly middle-aged men who were the real life blood of the profession. Their usual absence from the market scene did not mean they did not have an active trade, because a good portion of business went on during the week in the blacksmith forges themselves. In addition, each of these
more aloof members of the social group had income sources that complemented
the forge: one was a powerful marabout, one had four adult sons involved in
modern furniture making and machine repair, and the sons
of the third ran a lucrative welding operation in Jenn6.

The mainstay blacksmiths of the eastern neighborhoods tended to concentrate on
the standard iron products and do well with them. It is important to re-emphasize
that shops were individually run, and that each adult man in each shop, and to
some measure each boy, decided for himself what he would do for a living under
the rubric of blacksmithing. Cooperation among the shops took place at a
superficial, if practical level, involving things like the lending of tools, and
occasionally the sharing of an opportunity to buy iron in bulk. There was no
suprafamilial regulation of prices, quality, or marketing strategy whatsoever, apart
from what took place behind the scenes, by each smith's critical observations of
the situation around him.

The Status of Blacksmiths in Jenn6 Society. It is helpful to view the smiths
analytically as a group separated from average Somono fishers and farmers by a
kind of permeable wall. Women were the most frequent to cross it (LaViolette
1995); ethnicity is determined patrilineally and this would include the
classification of numu. Children born to a smith were numu, whether or not their
mother was. Patrilocality was also the norm in this area, and the women involved
tended to take on the craftproducing activities, or to abandon ones they brought
with them into marriage, depending on the practice of the female kin in their new
homes. In the early 1980s, a time of great economic stress, having a cash-
producing skill (or one that could be traded for grain straight from farmers) was
considered a great bonus, and Somono women who, in better times, might have
found pottery-making unattractive, were learning how to do it from their mothers-
in-law and jumping right in.

The 'laws' for the placement of blacksmith families in society could be revealed in
seemingly unimportant practices and anecdotes. It was difficult for respondents to
answer questions concerning relative social status of ethnic groups in Jenn6, for
example. One reason for this was due to the teachings of Islam that promote
social unity and equality; people from every ethnic group clearly had opinions
about people from the other groups, but they did not want to go on record
professing such opinions. Many responses began with disclaimers such as, 'Before
we were Muslims such-and-such would have happened, but now....' Nonetheless,
certain group opinions became clear. A story about a group reaction to the
behavior of a blacksmith family illustrated the underlying feelings. An uncle of
what was in 1983 the senior generation in one blacksmith family establishment
went to the C6te d'Ivoire in the 1950s, made a considerable sum of money in
commerce, and brought home the first two mechanical tractors ever seen in Jenn6.
In addition to modernizing his own farming, the tractor was a source of income
because he hired it out to other local farmers to use and made good profits doing
so. Considerable resentment built up around this situation. Although the details of
the rest of the story
differ depending on the teller, the consequences of this enterprise, deemed unsuitable for a blacksmith, was a curse that resulted in irreparably broken tractors. It also resulted in three of the man's sons and nephews growing up to be mentally ill. Thirty years later, tractors sat walled up in one half of the family's shop, partly visible; the sons wandered in and out of two adjoining family workshops in a trance, hitting randomly at pieces of iron; and people in the community continued to comment about the inappropriateness of the original smith's enterprise, which brought all these troubles on the family. Enterprise itself was not met typically with scorn in Jenn6--quite the opposite. That this family's history had become part of the popular culture in Jenn6, and that it continued to be told with a 'serves them right' punch-line, seemed to be based on a taboo against this behavior by blacksmiths in particular, which I could not elicit explicitly from anyone but which seemed to be the subtext. For whatever reasons, the action was considered completely inappropriate for that family in Jenn6 society, and had long-term meaning. The rusted tractors sat as a monument to the situation, still a source of pride to at least some members of the family and, interestingly, never converted to scrap.

The pursuit of family histories in Jenn6 was hindered by the smiths' sense that Islam interrupted the practice of smithing as it was conducted traditionally. According to this, smiths lost the spiritual power they possessed before Islam, a time when they had been held in awe by the people in their society, based on an indigenous religious life centered on the power inherent in natural substances and in their transformations (see McNaughton 1988, Herbert 1993, D. Miller 1997). The story of Kongusa that follows is an exception to the generalization about family histories, and mentions the time of conversion. It was not only told to me in more detail than any of the others, most of which were vague references to regions of origin, but also it reaches back to a time when the smiths said that they were not converted to Islam, and this status was partly responsible for their expulsion from the site of Kongusa.

Kongusa, and a neighboring abandoned settlement mound called Pikorasi, were said to be the joint sites of a numu settlement in antiquity. Three versions of the story were told to me, two specifying that it was the home of the Kass6 numu lineage specifically, and one that it was the home of both the Kass~s and the Samassekous, considered the two oldest blacksmith lineages in Jenn6. The informants expressed contradictory opinions as to whether the village was uniquely numu, or whether other people lived with them; most blacksmiths felt that the former was the case. They lived there, outside of Jenn6 ("Kongusa was there before Jenn6 itself, in the time of Jennjeno," one said) until in one version a war, and in another a plague of termites sent by God, dispersed them to all the sites where they have since lived, including Jenn6. At that time, reportedly, only Jennen6 people lived in Jenn6 because it was forbidden to everyone else, which perhaps meant that it was a Muslim settlement exclusively. They were dispersed because they were not Muslim. After they converted, they went everywhere--to Jenn6 and became the Kass6s there, and to Gomitogo, Soa, and other towns. To find their
new homes, they would settle at different places and wait to see whether it worked out; if it did not, they would move on. In Jenné "everyone was a stranger then," so blackssmiths were welcome after their conversion. If nothing else, this tradition implies an understanding of former separateness (although some claimed not to know why they would be separate), of past itinerancy, of serving a larger area than their own settlement when they were all at Kongusa, and of a time when they were indeed welcomed at Jenné and other sites. All of the sites they named were Marka-Bozo-Somono sites in 1983. The relationship between Kongusa and Pikorasi is not clear. I was told of a rope that was extended between the sites, islands almost year round, so that people could pull themselves across on a simple ferry. The sites are a few dozens of meters apart today, and are known by name as are most of the abandoned mounds on the floodplain. The slag concentration on the surface of Kongusa, one of the sites surveyed by R. McIntosh in 1981, was noted to be high, but not more so than many sites (R. McIntosh, pers. comm., 1987).

The Somono blackssmiths were historically and genealogically linked to several other groups of artisans in Jenné. The Somono potters were the most important of these, because most blackssmiths were husbands and fathers of potters. As mentioned, one adult goldsmith in Jenné was the son of a Somono blacksmit, and was unique in this setting where Arma and griot goldsmiths were dominant.

Economic Interactions with Other Sectors of Jenne Society. Blackssmiths were not, in the majority of cases, freed from producing at least some of their grain subsistence themselves. Their relationship to the agricultural cycle was an intimate one: in addition to being important to them as farmers, the cycle determined the market, in quantity and kind, of the blacksmit's manufactured goods; it determined the smith family's annual independent grain wealth and therefore how much additional grain the family must acquire, and it determined the extent and route of the yearly treks many smiths made through the countryside to earn that additional grain. Blackssmiths found themselves in the position of primary as well as secondary producers in the economy; they are dependent on the agricultural surplus of others but have the option to farm, which broadened their economic possibilities and differentiated them from griots, who were more strikingly dependent on the earnings of others.

To the smiths and most other artisans, grain was more valuable than currency itself in an economy where the locally grown grain was inadequate to go around. Land was officially free in independent Mali. All land was owned by the state, and was distributed and redistributed, in principle, to virtually any family who wished to farm it, build on it, or otherwise make use of it. The traditional agricultural land tenure system, predating the one put in place by the Malian government, continued to influence the doling out of land, although it too was based on the principle that the majority of the population was entitled to farmland. Due to the drought conditions of the 1980s, availability of land that would produce any food at all was the most limiting factor, because so much of the critical rice paddy land was not flooding and could not be planted, leaving Jenné without its formerly most plentiful
agricultural resource. The way in which government officials responded to the population's needs in partitioning the land involved criteria such as how long a family had farmed particular fields, the status of the family, and the desirability of the land. Jenné's urbanity had always been based heavily on agriculture, agricultural surplus, and trade. Some members of the population rarely farmed land, including government employees, whose grain purchases on the commercial market were subsidized, and the griots. Griots perform ritual duties for payment in grain, and are entitled to gifts of grain, for the asking, from families involved in harvests or important celebrations. It was said to me several times, but indirectly, that blacksmiths have the traditional right to ask for gifts of grain as the griots do, but also that this reflects negatively on someone's status, and the smiths themselves denied that they would ever do it. The internal hierarchy of the Fulani nyeenyBe, indeed, has at its base those who do nothing for their gifts of grain but ask for them; all artisan classes above them perform valued services for the Fulani and other groups. Blacksmiths asking for grain was apparently not something taking place recently in Jenné, but if true that it is or was a birthright of blacksmiths, it is an important social indicator. Most non-griot artisans-smiths, masons, Songhai goldsmiths--cultivate at least part of their own food. Two exceptions were evident among the Somono blacksmiths. The family of Hamaye Sounkoro did not cultivate grain, because, as explained to me, the number of adult sons in the family involved in smithing and/or commerce obviated the need to produce food. When the workforce in a family was adequately large and diversified, the family was able to purchase most of its grain; this was an uncommonly fortunate occurrence in the case of artisans. The same was true for the family of Na Traouré, the second (ex-) wife of the Arma smith Babalay Touré and the mother of the men who ran Touré's blacksmith shop. She not only bought, with cash, all the food for her family, but had also made the pilgrimage to Mecca twice, evidence of a considerable cash surplus. All other Somono smiths and potters known to me planted as many fields as they had access to and could afford, and claimed that their parents did as well. This has interesting implications, if true. I had at first assumed based on the literature that what I was seeing in the 1980s, when nearly everyone was trying to plant at least a few hectares of millet, sorghum, or rice, was a product of the drought conditions and the shortage of commercialized grain. If it was, in fact, the accepted practice in even the last two or three generations for smith/potter families and other artisans to have access to fields and to practice agriculture, then the older literature separating artisans from full-time farmers (e. g., Monteil 1903) should be used cautiously.

Workshop Organization and Production

The Jenné smiths subdivided into eight family workshops, each housing up to five actual work stations with a fire pit and numerous anvils. The workshops symbolized family and relationships within this group. In each case, except in the shop overseen by the Arma smith, the workshop was a physical extension of the home; two shops actually were the foyers of the smiths' family compounds, and the other Somono forges were usually within a few meters from the front door.
into the compound, in freestanding mudbrick structures. The Arna smith had
brought together in his shop sons and stepsons who combined carpentry,
smithing, and machine repair and created an environment different from that of
the more typical Somono workshops. The large Tour6-Soukoro shop, located on
the western edge of the marketplace and at a distance from all of their homes,
reflected a more commercial attitude toward work. This division is an important
one in the group, although it is not an antagonistic one.
All the smiths, Somono and Arna, engaged in nonaggressive economic
competition with one another. The craft of blacksmithing is that which defined
and organized the smiths' lives. At the same time the smithing industry was
sustained by familial relationships. As in virtually all socioeconomic structures
antedating westernstyle government here, people looked toward elders for formal
and informal leadership. The oldest smith in Jenn6 was the figurehead, and the
constellation of oldest smiths from each family formed a kind of old guard that
oversaw the operation of their respective shops. Sons and grandsons filled the
ranks as elders passed away.
The Acquisition of Raw Materials. Wood, charcoal and iron were the three
principal raw materials blacksmiths used in the forge, but the floodplain in which
Jenn6 is situated was not a good source for any of them. No native iron ore
sources are present in the Inland Delta. All smiths in the Delta, and in most of
Africa, now depend upon commercial scrap iron to supply their workshops. Scrap
iron, mostly in the form of automobile and ship parts, is sent from Europe to
northern Africa, where it is transported overland to Gao and then moved down the
Niger to Mopti in the larger motorized boats called pinasses. Often old trucks and
cars were being driven across the desert, and then scrapped when they reached
their sub-Saharan destination, precisely for this purpose. Since the mid-1970s, a
Bambara merchant in Jenn6 had been buying the scrap in Gao and Mopti and
bringing it to Jenn6 in small trucks and by pinasse via Kouakourou, whence it was
brought to Jenn6 (Fig. 6.2). He sold the
scrap by the kilogram to blacksmiths, who in 1983 were paying him 300 Malian
francs per kilo (about 60 cents U.S. at the time). Prior to his enterprise, several
smiths had gone into business collecting scrap iron brought up from the south to
San, Mopti, Nyono, Markala, and Segou to sell in Jenn, until the cost of
transporting became prohibitive; they claimed to be the first to have organized
such a trade in recent memory. One of the major economic stresses affecting the
smiths since the 1970s was the price of scrap iron, which was directly affected by
the cost of gasoline for the transport. Because subsistence farmers were the
predominant consumers of iron products in a town like Jenn6, the blacksmiths
could not hope to pass all their increased costs along to their clients. The smiths,
acting as an interface between the world economy and a subsistence economy
without a stable cash flow, had to absorb most of the sharply increased costs, and
their already modest profits suffered. When the Bambara merchant was
inadequately supplied, smiths went themselves to Mopti, Gao, and sometimes
south to San to find their own scrap. Several smiths mentioned that occasionally
they buy wrecked cars and trucks for scrap and sell off surplus iron to other
smiths in town for a profit.
The most common reason cited by smiths for the abandonment of native iron production and use was a combination of price and convenience. The cost differential between the locally-smelted iron and the scrap was reportedly ten to one in the forest zone (C. Goucher, pers. comm., 1987). The smiths agreed that scrap was considered much easier to use than the native iron, but made goods of lower quality. The only smith who claimed to have any specific knowledge of the transformation from local to imported told me that the abandonment of native iron production took place abruptly after World War I. By most reports it was a more gradual transition, and the two types of iron were available for a period. At that time the French sought to create a market for the abundance of scrap metal then accumulated in Europe, and suppressed African iron production in then French West Africa to the point of its extinction. The smith told of the massacre of iron-producing races (Fr.) to the south, so that local sources could no longer be exploited. It is clear that, for this region among many others, the French had at least an indirect role in this process. Making mass quantities of scrap iron available at low cost would inevitably affect the local supply structure. Smiths still felt resentful about what they considered an undesired end to indigenous African iron production. How massive and how regular the early shipments of imported iron were and how these shipments were actually handled was difficult to find out. The time period is not hard to establish: based on the ages of the smiths now in Jenn6 and their lack of experience with native iron, it is safe to say that it had been at least fifty years and as much as seventy since native iron was traded into Jenn6. None of the elder blacksmiths whom I met in Jenn6 or any of the villages had ever forged locally smelted iron, or had ever seen native iron smelted from ore. They were unanimous that their own fathers had worked with local iron, however, and that their fathers were never smelters themselves. The oldest smith in Jenn6, the Arma smith Babalay Tour6, remembered specifically that iron ingots the size of a man's hand (he indicated this by encircling one wrist with the opposite thumb and index finger, and spreading out his fingers) were routinely traded to Jenn6 smiths by people from the Benedougou area around San and Koutiala, immediately south of the Inland Niger Delta. The traders were named by two blacksmiths to have been Minyanka (also called Manka, Minkoro, and Myanka), a group of non-Islamicized, low-status cultivators who my informants said were also the smelters. The Jenn6 smiths had different memories of the way in which the iron reached Jenn6: several said that Minyanka came to Jenn6 to trade it; others said that men from Jenn6 went south to buy it; and one said it was transported directly to Mopti, where Jenn6 smiths bought it. Mopti has been a commercial center only in this century. Two smiths mentioned Sofara, a town northeast of Jenn6 on the way to Mopti, as a place where iron was available. One claimed that Dogon transported the iron from Sofara to Jenn6, on a smaller scale than it was transported from the southern regions. No written reference exists naming the Sofara area as a native iron source; though it is possible. Sofara may have served as a transit point for iron brought in from other areas, or in some
other aspect of support for iron production. I was unable to document this reliably.

Because the memories of smelters and iron sources were distant and in some cases second-hand, this information is not conclusive; however, it may be significant that as far as the informants are concerned, two methods of getting the pig iron to Jenn6 were plausible. Smelting itself, frequently surrounded in secrecy, is in the case of the Minyanka smelters associated with a non-Muslim group, a designation that carries undesirable connotations around Jenn. Despite the fact that these smelters and traders were so described, it was conceivable to my informants that they came to Jenn6 regularly to trade, and that Jenn-based people traveled south and mixed with that population. However separate that smelting group was, it dealt regularly with those around it, some of whom were Muslim.

No one had any specific knowledge about what traders were paid for their pig iron; cowries was the only response to my questions. Nor did anyone I spoke with in Jenn6 have any insight into the smelting process itself; I knew much more about how one went about it than any of them. They had no information about whether their own families had ever smelted iron, although they did know that in their fathers' and grandfathers' generations iron was purchased mainly from the southern group.

The contemporary Jenn6 smiths also bought the charcoal for their forging; they no longer made any themselves, but most claimed to have done it in the past. Bambara villages located on Mali's main north-south road, near the junction of the turn-off to Jenn6, produced some of the charcoal consumed in the Jenn6 market; these villagers also acted as middlemen in charcoal trade from the more wooded south. The charcoal was carried the 35km from the main road into the Monday market, and sold to smiths who bought whole sacks, as well as to families who bought sacks and sold the charcoal in small lots (enough for one use) throughout the week. Sofara and Baramandougou were also major sources for charcoal; in the latter village Bobo prepared charcoal throughout the non-agricultural period, and merchants from Jenn6 bought it in bulk and distributed it within town.

The charcoal used in kitchens and forges is the same, with the exception that smiths break up large chunks of it into pieces with the optimal size of small gravel. Once I took the small pieces at the bottom of my own bag of cooking charcoal to a smith to use in the forge, but he explained to me that those pieces were too small, and would suffocate the flames. The pieces need to be small but chunky, in order to allow the proper amount of air into the combustion.

The decimation of the wood resources around all population centers the size of Jenn6, which were dependent on wood fuel for cooking, made sacks of charcoal the most expensive fuel. Smiths complained about the charcoal prices as they complained about the iron prices. A burlap sack of charcoal, approximately a meter tall and 70 centimeters in diameter, could not be purchased for less than 3,000 Malian francs in 1983 ($6), and this price could double during periods of increased scarcity.
A survey in the western Inland Delta in the Mema (Haaland 1980) indicated that an active blacksmith and/or smelter group alone, operating in a relatively dry, well-populated urban area like that of Timbuktu or Jenné, could result in dramatic deforestation problems over the course of several hundred years. Although no iron ore was available in the immediate vicinity, archaeological evidence for iron smelting around Jenné in prehistory abounds, and the uninterrupted archeological record of iron forging spans two millennia. The constant shortage of charcoal and firewood around Jenné is undoubtedly related to overexploitation, and blacksmiths are logically part of the population responsible (see Goucher 1981, de Barros 1986, Schmidt 1997:264-303).

The use of wood in forging was predominantly for hafting iron hoe and knife blades, and for making locally designed outer-door locks for houses, which are all wood with a few iron pins in the keys and the locks themselves (Monteil 1971 [1932]:249 mentions these locks). Smiths were adept at carving, shaping, and decorating wood with incisions and burning, but did this almost exclusively as it related to accessories for iron tools. Smiths did, on occasion and only on commission, decorate calabashes and drill holes into calabash bases to make collanders for straining and steaming food. In these cases the calabashes were supplied by the clients. Clients also might supply the wood (sounsoun, Bambara and douwuye, Songhai) necessary for making hoe-handles and other accessories that required certain grades for longest usage. Wood used commonly in smith shops was of the same variety found in the market for fuel (e.g., Acacia albida); the most important difference was the diameter of the branch needed for heft.

What I have described is the limit of the woodworking for most Somono numuw. A subclass of the Fulani griots (lobo gadjaka) provided large objects in carved wood-yokes for oxen, mortars and pestles, stools. Arma carpenters were responsible for modern-design furniture making; in the case of the one Arma/Somono blacksmith shop, smithing and furniture making took place under the same roof, on opposite sides of the workshop. Another material sometimes found in smith shops was scrap tin and aluminum, mostly from canned goods, which smiths (usually teenagers and young boys) melted down in the fire pits and poured into temporary depressions dug into their shop floors. They then hammered the lump of warm metal into objects such as netweights and ladles, and sold them in the market along with their normal fare. Cans and used containers of all kinds were valued highly, so young smiths sometimes had to buy the scrap rather than scavenge it; often the event of casting was the result of finding free materials.

In one-and-a-half years of time spent with blacksmiths in Jenné I did not witness the working of any other metals in their shops, but I was told of Jenné smiths doing bronzecasting (T. Garrard, pers. comm., 1987). The bronzecasting I saw in or around Jenné was in the shops of the jewelry makers, who worked with aluminum, copper, bronze, silver, gold, and various admixtures of these metals.

The Work Place Described. As stated above, the eight permanent blacksmith forges in Jenné were located in different quarters of town in residential
neighborhoods. This was not always the case. According to Babalay Touré, and later confirmed by other smiths, the forges were formerly located in the marketplace, aligned next to each other along the southern periphery. They were set up in much the same way as the shops of the itinerant Tuareg in Jenné were in 1983, under simple rectangular pole-and-thatch (or mat) shelters. He said that the French had suspended the Monday market in Jenné after the town was captured in 1893, and when it was re-established in the first decade or so of this century, the blacksmiths were ordered back into the quartiers because the governors felt the noise disruptive. According to the smiths, it was only then that shops were built in foyers of compounds and in independent permanent structures in the town. All the blacksmith shops standing in Jenné were more recent than this period of construction; several were between 20 and 30 years old and the others were still more recent. All but one was built with rectangular, mold bricks used in Jenné since the 1940s. One in the Algasba quartier (fam. Samassekou) included both the small cylindrical mudbricks used in Jenné for centuries until the 1940s, as well as mold bricks, and seemed to be the the oldest forge. The shops varied considerably in size, shape, state of repair, and the wealth of tools and raw materials that symbolized the degree to which each was established and prospering. What they had in common were the features critical to production: bellows, fire pit(s), anvils, quenching pots, a working floor, and a scatter of tools and materials (Fig. 6.3). In each forge the number of work stations--each comprising the elements listed above-usually indicated how many adult smiths currently worked there on a nearly full-time basis. This number often disagreed with what smiths cited as their shop's membership, for they tended to count all of their sons who did not have shops of their own as part of the workforce, whether or not the sons lived in Jenné or participated in smithing at all. Observations in all the shops throughout the two field seasons confirmed that the permanent adult presence was generally consistent with the number of work stations, which was logical. Some shops bore evidence of abandoned fire pits in them; the bellows and anvils had been removed to more useful locations. It was not apparent in any of the shops that the smiths present lacked adequate work space.

The bellows used in Jenné and in the three villages in which I observed Somono numu smithing were of exactly the same form (Fig. 6.4). They were made of a pair of goatskins, each sewn into a bag, with the neck end of the skin drawn and fastened with nails around a carved wooden discoidal plug approximately 10cm in diameter and the same thickness. The opposite, open end of each skin was faced with two opposing wooden strips that anchored leather thongs in place. With one bag in each hand, the person at the bellows inserted his thumbs between thong and strip on one side of the bag and remaining fingers in the other thong. He opened one bag and then the other as he drew each to him in turn, by spreading his hand and allowing air to enter; he closed each bag by clenching his hand as he pushed the bag away from him, forcing air into the fire. An iron pipe between 2-3cm in diameter and 20-30cm long was fitted into a hole carved in the wooden plug at the base of each goatskin. The pair of skins was joined at their pipes, near where they emerged from the plugs, usually with a small piece of iron used like a strap. This strapping was placed behind an
oversized hand-forged nail pounded into the ground; the nail and the strap prevented the bellows from moving forward toward the fire as they were pumped. The pipes pointed together and were fitted into a clay cone, which channelled the air blast directly into the heart of the burning charcoal. Adults and children prepared the cones in the forge with clay heavily tempered with straw and the remains of the last cone, which was broken up with a hammer into gravel-sized chunks and dissolved in water. The cone was allowed to dry before it was placed around the pipes. When ready, it was anchored in place by more of the same mud mixture, plastered on both sides of the cone. The wet casing was covered with straw and left to air-dry slowly. By the next day the cone was in use, and the construction was baked in situ by the heat of the working fire pit. When cones had been heavily used, an olive green, bubbly glaze (approx. Munsell value 2.5Y4/2) formed around the tip of the cone, lying immediately adjacent to the fire pit. They also baked differentially, and exhibited a characteristic series of colors from the tip of the cone to its base: grey-orange, bright orange, black, and grey (approx. Munsell values 2.5YR5/4, 2.5YR6/8, 5YR3/1, 2.5YR7/1). One cone and mount could last anywhere from a few days to several months before cracking.

The fire pit associated with each work station was a deep, narrow trench perpendicular to the incoming bellows pipes. The shape of the fire pit was not fixed, but dimensions of approximately 50x20cm was common, with a depth of 10-20cm below floor level. The blacksmiths altered the pit when they needed to accommodate larger pieces of iron than normal, such as plow blades or handles, or the leaf springs which were a mainstay raw material. The fire pit went through the same baking as the cone, of course, and the clay that gave it structure would become brittle. The charcoal, cinder, and bits of iron waste from the forging process were scooped out of the fire pit regularly and became part of the debris on and pressed into the clayey shop floor. Each fire pit was accompanied by a ceramic pot set into the ground that served as a container for quenching water. The ideal quenching pot was 45-50cm in diameter, and about 30cm deep. In Jenn6 and in the villages they were always pots made by Somono potters, since the strength of the pot walls was critical to their utility and Fulani griot made pots were typically thin-walled and more porous. The pots were set low into the ground to provide stability and to make them a convenient reach from a sitting position; the constant building up of the topography of the shop floor often brought the floor right up to the pot rim. The entire circumference of this rim was usually broken, due to the reaching in of smiths holding heavy tools and hot iron. Most of the pots in the Jenn6 shops were decorated with a roulette design on the exterior, due to two practices. Normal water pots, which were the only commonly made pots of the size the smiths need, were frequently rouletted below their widest circumference, and additionally, decoration on pots made especially for this purpose would be limited to rouletting or a very quick wash with color, the most basic kinds of decoration. The permanently fixed pots were sometimes supplemented by
small movable ablution-type pots, usually washed inside and out with red paint and rouletted. Although seepage and evaporation necessitated regular refilling, water inside these pots was never emptied, yielding the potent, ironcharged water desired by the public for treating various illnesses.
The water, traditionally sought as a cure for stomach ailments and fever, was also used prophylactically for people in danger of burns and gunshot wounds. According to the smiths, the practice of drinking and washing with this water had declined from past practice, and they blamed the availability of western medical help in the dispensary for this change in attitude. Several smiths were wistful and even resentful about this, and seemed to relate the loss of confidence in the water to a change in the local belief structure. In 1983 the water was reportedly administered chiefly to children, and to the elderly for a variety of conditions associated with fatigue and weakness; on a few occasions I saw older women come to the forge and ask for the water, which they would carry away in small bottles they would plug with cloth and sequester in their clothes. Understandably, it was the elderly who seemed most ready to retain beliefs associated with traditional medicine, and those feeding the water to children came chiefly from that age group and from blacksmith families themselves. The smiths said that the classic way of getting the water was to enter the forge at night and deposit small change in the quenching pot in exchange for a small quantity.
Blacksmith shop floors were composed of clayey dirt and sand, wood chips, sawdust, forging slag and iron bits, charcoal, and straw. The area around the fire pit itself was baked to a crumbly orange, and immediately outside that was usually an area of loose sandy dirt mixed with forging slag, iron bits, and charcoal. This area was affected by the smiths constantly plunging pieces of hot iron into the loose dirt to hold them and to cool the metal, without the more dramatic temperature change of quenching in water. The dirt color here was usually a mottled black, grey, and brown, influenced mostly by charcoal bits and dust (approx. Munsell value 5YR6/1, 5YR4/1, 7.5YR3/1). Outside the area immediately around the fire pit, a more generalized scatter of wood chips occurred from carving handles and other wooden fittings, as well as a scatter of charcoal chips, bits of iron waste, and straw brought in for making the cones. When workshops were established they were essentially flat, with a fire pit scooped out of the ground and the adjacent cone built up slightly. The log holding the anvils was either laid on top of the ground, as it was found in temporary workshops like the Tuareg shop in Jenn6 and the Jenni smiths' shops when they moved to villages, or dug into the ground. The quenching pot was usually, but not always, partially buried. When shops were used over a long period, the topography of the floor could change dramatically. The fire pit could remain at approximately the same level, but the area surrounding it could build up sharply from the deposits scooped out of it. The spot where the smith sat remained relatively low, and the terrain often sloped slightly upward from there, with the fire pit alone sloping down sharply. The floor levels of each shop were different, and the variation depended on certain obvious factors such as how long the shop had been
in operation. Other relevant variables were whether the shop had doors, and how much iron the smiths are able to keep in stock. The shops with the most noticeably varied topography were those with doors, with a relatively large quantity of scattered iron and tools allowing build-up of debris. Finally, there was an unmistakable large scatter characteristic of forges. The movable objects already mentioned were the industrial anvils and free-standing water pots. In addition, one could always find an old pot or large open can used to keep a day's worth of charcoal. At least one large sandstone (25x 15x5cm in size or larger) was standard equipment as well. It was used as a solid surface for banging iron into a piece of wood, for resting wood against while it was chopped or carved, or to sharpen the blades of hoes, knives, or plows. In two shops Jenn6 smiths used stones to lay over the bellows pipes as a further means of anchoring them in place. All of these stones were roughly rectangular (see S. McIntosh 1995, Fig. 5.1), and often had visible depressions worn into their centers. They were imported from outside the floodplain and purchased in the Monday market. All shops had high door jambs of mudbrick topped with wood, just as virtually all homes did. Some shops were equipped with lockable, hinged wooden doors and some were not. The shops without doors were neatened every night and valuables were brought into the smiths' homes, with the exception of the anvils. Anvils, it was told to me, were among the most precious possessions of the smiths, and were protected by a curse on anyone who would violate a forge by trying to remove one.

Those shops that could be locked were the only ones where large amounts of scrap were stored, however. Smiths with open shops keep their materials at home, and carry to the shops what they need daily. Where a great accumulation of scrap occurs, the scrap promotes the slow building up of dirt deposits, so that iron piles tend to be on elevations in the shops. Likewise, the nightly tidying of shops without doors cuts down on the kinds of accumulation allowed in the closed shops, so the floors of doorless shops as a group appear to have less wellexpressed topography.

Several architectural features appear in the custom-built smith workshops that would not be expected in another kind of structure. Of the eight shops in Jenn6, three are provided with one or more columns, placed in the room when it is built, to compensate for the continuous pounding inside. The pounding in one such shop, dampened by the solid clay ground and a wall in between, could be felt thirty or forty feet away in an adjacent shop, so fears about the destructiveness of pounding are probably justified. Columns are not common in Jenn houses, even in very large rooms, although they are found in mosques. The building techniques are such that solid, mud brick columns are not usually necessary for ceiling support, even in the case of two-storied houses. The columns are found in some of the older forges and some of the new; they are in the two largest ones but also in the smallest shop. In one case they are round, and in the others they are rectangular. Somono forges in Kouakourou have mudbrick walls two bricks thick, and ceilings constructed of long poles. The poles are the same ones used to support ceilings and second story floors in Jenn6 buildings. In Kouakourou they have
been left unplastered, so that heat and smoke can leave through the openings, but the ceiling still provides shade.

The second noticeable architectural feature is the increased wall thickness of several freestanding forges. Most walls in Jenn6, whatever the structure, are the thickness of two mudbricks (see Chapter 8). Several blacksmith workshops built for that purpose have walls that are three bricks thick. Smiths cite the increased wall thickness as a second attempt to counter the enormous stresses placed on workshops. The added thickness also helps to muffle the sound of hammering that dominates neighborhoods where smithing takes place. For the reason of the hammering alone, it seems reasonable to find smith shops clustered together. Scale plans of blacksmith forges (as well as goldsmiths’) are in Appendix B. These show the consistent spatial relationship of anvils to fire pits and water pots, and generally of work stations in relation to walls.

Anvils and Other Tools. The number and types of anvils in a shop varied greatly, and included widely used indigenous designs and iron objects obtained through the scrap dealer. The standard anvil was small and nailshaped; two sizes of this type were common, with square heads approximately 10 and 15cm, respectively. This type was made by the blacksmith himself from commercial iron; he would make a thick round bar approximately 45cm in diameter, and flatten and shape one end into the square, slightly convex head of the anvil. The finished head was from 1-2cm thick around the edges, and slightly thicker in the center. The creation of such an anvil was one of the hardest things a smith had to do in his shop, and family and friends celebrated the undertaking of a new one with helpful visits to the forge, congratulations, and small gifts such as kola.

The scrap pieces used as-is included a large rope cleat from a ship, and an automotive flywheel, both of which provided enormous shaping versatility for the smiths. They were purchased through the iron merchant who, knowing their value, charged more for them than other scrap sold by the kilo. The nail-anvils were fixed in logs buried in the shop floor. They were prevented from being pounded into the logs past the optimal point by an iron ring fitted around the tapered base of the nail. The industrially made pieces used as anvils were usually just sitting on the shop floor, although their weight and use tended to embed them slightly into the ground. Each shop had at least one of the essential nail-anvils, and having two by a work station was common. Five out of eight shops in Jenn6 had at least one of the larger irregular anvils in addition to the stationary ones.

The classic smith’s percussion tool was a solid tapered iron rod approximately 30cm long, oblong to rectangular in cross-section, where it measured about 5cm in diameter. It was gripped in the hand at the narrower end. These have been supplemented widely and even replaced in some shops by locally made hammers of western design, with wooden handles and small or large iron heads. Another common tool is a set of long-handled tongs (40-50cm) used for holding metal in the fire and on the anvil. Several hammers and several pairs of tongs were always present where a smith was sitting. Other special-purpose tools included chisels, files, broaches, and punches, all either locally made or bought in markets in the
larger centers such as Mopti and Bamako. Tools such as files and broaches that require considerable manufacturing time themselves were usually kept in a wooden tool box for safety, or sometimes in a niche in the shop wall, behind a small lockable door. In these boxes and niches smiths also kept pieces used as patterns or models—bolts of a special diameter, cardboard or tin cutouts used to trace components of a plow—and small tools, such as a punch and the special nut used to oppose it.

Organization of Labor in the Forges. One of the clear advantages of kin-based blacksmithing was the contributions made in the workshops by family members at different ages and skill levels. The most common scene at one work station would be an adult smith both holding and hitting a piece of hot iron, helped by a young boy at the bellows. It was also common to see an adult man forging, with an older man, often his father, at the bellows. Adolescent boys working together, or with the help of a younger boy at the bellows, was another common pattern. All three situations might be seen simultaneously in a shop, at three different work stations. When one operation required rapid, intensive hitting or a grip more powerful than a boy could provide, adults would quickly drop what they were doing and take position around the other fire pit. The more generations present in a shop, the more flexible and productive that shop was likely to be, as long as there was adequate work space. One shop in the Djoboro quartier was run by a middle-aged smith with only the help of his young sons. He was unable to undertake any complicated projects—such as plow-making—that required intense periods of hammering on large pieces of iron. With no one to back him up, he complained frequently of exhaustion and often closed his forge down in the afternoons because he was unable to keep pace.

Moving from shop to shop, it became clear what combinations of workers were the most conducive to efficient production. Not surprisingly, they were those with a distribution from young to old, with several men between the ages of 15 and middle-age. The presence of an elder smith in a shop, whether or not he was actually working most of the time, was common. Most senior smiths of a forge wanted to be in the shop as much as possible, but would find much of the work too physically demanding. Some of the oldest smiths in Jenn6 who seemed vital in the forge, pumping the bellows and taking their turns at more strenuous hammering, appeared surprisingly feeble when I saw them walking through town. Men who had spent their whole lives as blacksmiths never retired from the forge by choice. Forges appeared oddly empty and off-balance when no elder smith was on the premises, even when the forges were filled with activity. This absence was also felt by adolescent apprentices, who would take something they were making into a neighboring shop to have it checked when their own elder was not present. Again, despite the prevalence of groups of men working in forges, much of the work was done alone, with an assistant at the bellows.

It was very common to find toddlers present in blacksmith workshops, in addition to young children of the age when they could be helpful to the smiths. Blacksmiths were often given the task of watching their children in the forge. Unlike many fathers, they were essentially stationary during the day, and because most shops housed more than one adult smith and numerous apprentices,
babysitters were always available. Very young children of both sexes ran through the tools and fire pits with great familiarity. Beginning at three or four years old, children (by this age, boys mostly) amused themselves by making small modeled animals (cows and sheep) with water and dirt from the floor and hammering at scraps of metal. Once boys are seven or eight they were helping to hold heated metal while the smiths hammer, do preparatory work around the shop such as the scoring of metal with hammer and chisel before breaking it into pieces, and would even cast aluminum as described above.

The raising of boys in the atmosphere of a forge encouraged the kind of play that led to experimentation with materials, and a fascination with the forging process necessary to keep the boys' interest in the smithing profession. Few of the numu children were sent to primary or secondary school, although most received Koranic training. There were notable exceptions--fathers who insisted their sons attend school and hoped that they would fare better than their elders financially and professionally. Most fathers insisted on their sons remaining in the forge with them until they reached the traditional age of reason at the time of their marriage. At this time the 10 or 15 years of real apprenticeship came to an end, and the son was welcomed as a near-peer into the middle-aged group of smiths. Age remained an immutable factor affecting status, however, so the young would continue to defer to the old. But at marriage, whatever the chronological age of the groom, fathers looked at sons differently and the son had more freedom concerning his future. At this point most sons chose among four options: they moved to bigger towns to benefit from more active commerce and social atmosphere; moved to smaller ones where they saw a niche for a smith; pursued commerce exclusively, usually in a larger town; or remained in Jenn in the shop of their father. No son remaining in town would found a new shop; he would always be part of the shop in which he apprenticed.

Forging Techniques
An account of the techniques of iron forging must consider the constraints placed upon smiths by the nature of scrap metal and the changing market for iron goods. Over half of the categories of products made by smiths appeared to predate the advent of European models and western-inspired goods (Table 6.1). The remainder was affected--directly or indirectly--by outside contact. I would not attempt to assess the degree to which manufacturing techniques evolved through time, or how western models and the availability of industrially produced scrap have affected the actual process of transforming iron into useful objects. All of the blacksmithing activities I observed--in Jenn6, in villages in the region, and in Dogon villages east of Sanga--were based on the use of scrap. The fact that the blacksmiths were re-using iron, however, does not diminish the appreciation of their manufacturing skills; contemporary smiths draw on over fifty years of expertise with their current resources.

In terms of technique, the most useful way of categorizing contemporary production is based on the size of the final product, because the pieces of iron scrap themselves influenced blacksmiths' strategies. Although one could argue that the making of each particular artifact--knife, fishhook, charcoal burner, gun--
involved a strategy all its own, there appeared to be three generalized procedures based on the size, and especially the thickness, of the finished product. These three procedures were not mutually exclusive, because in most cases there were many possible routes to each end, depending on what sorts of iron were available. Because smiths bought iron by weight, they often had more medium to small pieces of iron and sheet metal at their disposal, and fewer massive pieces, unless items had been commissioned partially prepaid, or the smith anticipated a secure market worthy of a large initial capital investment. In 1983, the general economic depression in town, the insufficient crop yields due to the drought, the rising fuel costs, and the indigent countryside had diminished the amount of risk-taking possible for smiths. Their options, apart from remaining in their shops and hoping for the best, are discussed below.

The first group of techniques involved sheet metal. Smiths used this iron, which arrived most often as pieces of automotive bodies, to make small, thin objects. The largest I saw produced from sheet metal were small charcoal braziers, all of whose parts were thin. For most artifacts, the cold metal was scored by hitting with hammer and chisel, after which it was folded and broken by hammering the scored piece against the edge of an anvil. From the pieces, the smiths make objects whose required bulk could be achieved through simple heating, hammering, and folding at the anvil: nails, fishhooks, wall hooks, needles.

Among the commonest of sheet metal-derived products were the pirogue nails, made by the thousands in most shops every year during the rainy season, the high season for boat building. Each nail began as a scored and cut isosceles triangle of metal, with a base and hypotenuse of about 2 and 8 cm, respectively. After two minutes or so of rotating and hitting, it was compacted into a pin with a square cross-section, tapering to a sharp point. The characteristic semicircular head was produced when the shaft itself was finished, by hammering flat the thick end of the nail, shaping it with a few strokes, and bending the head slightly toward the center line of the nail.

Although this product is immediately identifiable as a pirogue nail, the length and weight of it varied considerably. The flexible nature of many of the light, inexpensive artifacts made from sheet metal, in combination with the fact that minimal physical power is necessary to work the sheet compared to the more massive pieces, often relegated their manufacture to the younger apprentices. Taking from three to four minutes each to make (including the scoring), and selling at from 10-20 Malian francs apiece (in 1983), the nails that could be produced in a day's work (between 100 and 200) could result in a profit of at least 1,000 thousand Malian francs (about $1.50). This was a very good day's earnings. Adult smiths were not averse to making small items themselves, and did so in the slower seasons because they meant guaranteed sales later on. In the lean period when I was present, the small household necessities such as pins and knives, repairs to old tools, and talismans were the mainstay of many smiths.

The industrial iron came in a wide variety of shapes and weights. Smiths capitalized on this, of course, and when they were able, bought their iron in pieces that would take the least work to transform into the desired product. Smiths
differentiated between goods that required high quality iron and those that did not. Sheet metal was considered low quality. Massive bars and chunks of iron were considered high quality because the smith would not have to do any piecing together to attain the desired bulk, a practice that was considered to leave inherent weakness in the finished product. All of the items made from the recycled iron required more repair and resharpening than those made from native ore, according to everyone I interviewed.

The second manufacturing strategy comprised cutting down relatively massive iron pieces in the forge and shaping them from there. Dabas, the omnipresent handheld hoes, required the strongest iron available, and were characteristic end products of this technique (Fig. 6.5). All work in these cases would be done on heated metal, unlike the first stages of working sheet, which was done cold. The principle of manufacturing was not qualitatively different from the cutting and shaping described above, but this work required adult strength and control and much more time to accomplish. It also frequently required more than one person, at least intermittently during production—one to hold and one to hit, or one to hold and two to hit in alternating rhythm. When a smith had the exact-sized piece of metal to begin with, he would heat the iron to redhot and then begin hammering. The third strategy involved the layering of iron to increase its mass. This was often done by folding one piece around another, and heating the two together at the highest temperature possible in the forge. To raise the heat of the fire, the smith increased the average size of the chunks of charcoal, the amount of charcoal, and the rate of pumping the bellows. He smeared the interfacing surfaces of the iron with banco, or clayey mud, before they were joined in the fire, a practice that resulted in sprays of sparks as the pieces were hammered. For the two pieces of iron to behave like a single one during subsequent use, the pieces had to be heated to red hot and hammered violently, without quenching, at least four times. Once the join was solidified, the manufacturing process proceeded as described above. Use of this patched iron was generally avoided when the end product—such as a daba—would be subjected to continuous beating, and would never be used for some classes of artifacts, like the smith's own tools or anvils.

Certain of the blacksmiths' activities deserve separate mention. The making of guns and plows were two specializations within the community of smiths in Jenn. Two- and three-barrel shotguns have been locally produced for at least several hundred years, along with powder handguns (not prevalent more recently), spherical iron bullets, and gunpowder. The dearth of game around Jerro in the modern period eliminated the need for steady production of hunting equipment, but guns were nonetheless still used for firing during celebrations and as status symbols. Gunpowder, made locally from one part each of charcoal, sulphur, and saltpeter, was made by smiths, but was formerly made chiefly by hunters. Hunters were considered a specialized population as well, and have a long magico-spiritual history in Mande societies; in Jenne the small group of hunters were Bambara, and they dressed in distinctive, gris-griscovered, mustard-yellow locally woven clothing. I mention this because in traditional Mande belief structures,
hunters, like numuw, are associated with frightening powers. In the case of hunters this derived from their travel through wild and dangerous landscapes, and their power over animal spirits, while numuw oversee pyrotechnical transformations of matter (McNaughton 1988:71-2).

Plows fall into a special category not because they were so technically difficult to produce, although the smiths claimed this, but because the combination of necessarily high quality iron, the sheer quantity of iron, and the number of time-consuming operations required to create each plow forced smiths who became involved in plowmaking to specialize, in effect, because it committed so many of their resources. Jenn6 smiths copied two French prototypes introduced during the colonial period, known locally by their brand names (Tropicale, a single-wheeled type, and Bazac, two-wheeled). The copies were meticulously made, with their parts even painted bright red and blue like the originals, and were cherished status symbols of their owners, who could expect to pay at least 50,000 Malian francs for one in 1983 ($100). The lighter Tropicales were more popular during the drought years, reportedly because the chronically underfed oxen were able to pull them through the soil more easily.

The making of the spoked wheels and the plowshare were the most challenging aspects of plow production; each could take a day or more to manufacture, and it was on their qualities that the performance of the plow depended. The wheel could not wobble on its mount, and the plowshare had to hold its edge for the plow to be effective in the often cement-like soils of the Pondori. The agricultural seasons I witnessed in Jenn6 were particularly bad ones for farmers, and few who wanted to buy their first plow or replace an old one were able to do so. Several smiths displayed plows in the market, week after week, and were unable to sell them. One smith sold only the wheel from his plow one market day, replaced it for the next market, and was forced to sell that replacement wheel as well. This situation was a terrible drain on the average smith, because he was monopolizing so much iron and labor in a product that was prohibitively expensive, as well as being directly associated with the ailing agricultural economy. If he could sell the plow, however, he had a considerable lump of capital to manipulate. In 1983 only a few smiths in Jenn6 could gamble with noncommissioned plow-making under the economic pressures they were experiencing.

One could say that the most lucrative blacksmith specialty in Jenn6 was modernization. The shop of the Anna smith (fam. Tour6), run by his sons and stepsons (fam. Soukoro), was a repository of machining and engineering knowledge as well as what must have then been the largest collection of modern tools in the cercle of Jenrm. Although the Soukoro and Tourrs continued to produce a small supply of dabas and other typical fare, they were renowned for their ability to fix any industrially made machinery, to reproduce any machine-made part—especially keys and auto parts—and for their general creativity. One example of the latter was a tubular metal walking cane for elderly men that concealed a sword blade inside, "for defense when walking to the mosque early in the morning and late at night." These brothers'
commercial success was such that they did not plant crops, although the old Arma smith himself did so as a younger man, as did his father. Again, the brothers supplemented their metalworking business through their Arma-exclusive furniture making in Jenn6. Perhaps because of their Arma connections, they were not begrudged their striking success.

Mande blacksmiths elsewhere have been associated with the making of elaborate figurative iron sculptures, some of which also functioned as lamps (McNaughton 1975, 1977, 1988, 1995). It is worth noting that Jenn6 blacksmiths were not making any of these sculptures during the period I was working there. Forged cup-shaped oil lamps, mounted on iron spikes for insertion into the ground, were part of their past repertoire, however, and these bore stylistic similarity to the above sculptures. Although seemingly entirely replaced by imported hurricane lanterns as of 1983, one was made during my stay and given to me as a gift.

The Distribution of Products and Services

Blacksmiths conveyed their merchandise to clients through four practices: selling ready-made goods for cash and taking commissions at the large Monday market in Jenn6; selling ready-made goods, usually for cash, and taking commissions from their workshops during the week; selling in smaller, village markets in Jenn6's countryside for payments in grain; and traveling from village to village, setting up temporary shop, and providing goods and services on demand, in exchange for payments in grain.

Monday Market. The Monday market drew vendors from Mopti, Sofara, and other commercial centers as well as villagers from throughout the Pondori, and was Jenn6's largest arena for the exchange of raw materials and food, local manufactures, imported goods, the services of specialists, and socializing. Each week the Jenn6 blacksmiths laid out a display of their goods in the marketplace and used the occasion to interact with each other and visitors from out of town. The smiths displayed their goods in a relatively casual way, with one shop's offerings spread out adjacent to another's. Prices were not fixed or agreed upon formally, yet there was a general understanding among smiths about how much things should cost based on weight and complexity of design. Bargaining went on continuously, as in all markets of this type, but smiths from different shops did not advertently vie for a customer's business in the market by undercutting each other's prices. The items on display from each shop were virtually the same; it was often a prior relationship with the smith that influenced a customer's choice rather than any marketing strategy at work; this was true for many kinds of selling in Jenn6 and elsewhere. When the customer was a stranger to all of the smiths, or when the customer knew all the smiths personally, shopping for the best deal and the best quality would take place. Each senior blacksmith saw it as in his and his family's best interest to produce the highest quality merchandise possible, and always to be competitively priced.

The Monday market was not the day when the people of Jenn6 themselves carried out the bulk of their dealings with blacksmiths. It may have been the occasion on which Jenn6 clients decided whose plow they might buy, for example, but it was rare to see people from Jenn6 negotiate openly with smiths. Many business
transactions took place during the week, with a client poking his or her head into the door of the blacksmiths' forges. Virtually all spiritual and personal dealing—the commissioning of gris gris, requests for other kinds of help—took place in the shops or in the smiths' homes, wherever the elder smith could be found, a man who was chosen for the task because of his experience and reputation in these matters.

Many other jobs were commissioned in shops. Repairs were frequent, as well as the purchase of small household items. In the agricultural season, a constant stream of men came to shops with plow blades to be sharpened or refitted onto the plow beam, or wheels that needed reworking. In Jenn6, smiths claimed to lose money on repairs because their clients were often friends and family, making it difficult to charge them what the work was really worth. I witnessed such an exchange between one smith, who operated the smallest shop with the least amount of help, and a neighbor who came for a small repair. She offered him money; he protested that it was too much and gave it all back to her, insisting that she make a lower offer. She made a much lower one, and he felt obliged to accept it to be honorable. When she left, he shook his head and claimed that it was not nearly enough. However, for him the outcome was an investment in a continuing relationship, and part of the burden and responsibility of being numu.

Smiths sacrificed profits in several ways. In the Monday market, the event of coming together as a community seemed to take precedent over individual gain, although naturally sales were encouraged and desirable. During the week the small sales, however inadequate, help to proliferate goodwill. The client who feels that he or she has established a strong relationship with a smith may one day pay that smith well for gris gris, and patronize him and his family exclusively. The daily interactions with people of Jenn6 were as important to the overall success of the smith and his family as were strong sales in the public market.

Area Village Markets. Despite the dominance of the Jenn6 and Sofara markets for this economic interaction sphere and the relative ease of transportation into those centers, a number of cyclical village markets have persisted, providing another formal setting for the selling of Jenn6's locally manufactured goods. Smiths from Jenn6 went to these markets with a selection of their products—a plow if they had one, dabas if it was close to or during the agricultural season, and dozens of pins, knives, and small objects. They also took a light tool kit with them, for making custom orders on the spot and for handling the endless repairs. These trips were made in one day if the smith had his own motorized transportation, such as a small motorbike, or mobylette, and took two or three if he had to rely on the intermittent rural public transportation systems (small converted pickup trucks covered with canvas, called bdchges in French, and large transport trucks); in 1983 about half the smiths were in each category. The rainy season itself was not a major rural marketing period. The period after the rainy season, however, and during the harvest season was active for smiths in rural markets, because not only was it a prosperous time of year but also the waterways were refilled, and moving from Jenn6 to many areas of the Pondori could be done efficiently by boat.
Although the principal reason for these visits was extending the market for the goods, the villages were particularly popular destinations for the younger unmarried smiths, both as a diversion from the sameness of their work in Jenn6 and as away of socializing and looking for possible wives. Jenn6 smiths in the rural markets were considered urbane, and their merchandise more desirable than competitive goods originating in village forges. If Jenn6 blacksmiths were willing to trek to these markets, their sales were usually good.

Seasonal Traveling for Longer Periods. This practice of reaching the distant rural population, taken to another level, is something many of the artisans carry on. The blacksmiths, Somono/numu and Fulani griot potters, Fulani griot goldsmiths and weavers, Dogon weavers, and the masons, all had people among them who traveled to rural destinations for weeks and months at a time, in different phases of the agricultural season every year. The plan was straightforward in theory: anyone who was so inclined, and could be spared from his or her home setting, went to one or more villages in the area where the services of a specialist were lacking, was provided room and board with a family, and worked until the market for his or her services was exhausted. In practice it was an elaborate economic and social ritual that, among other things, provided glimpses into aspects of craft production not to be seen in Jenn6 itself.

The blacksmiths who left Jenn6 seasonally, as I said, are often unmarried, but married men do it as well, alone or accompanied by their wives, whether or not the latter are potters. A wife may go along with her husband if the couple has no children, or the youngest of the co-wives may go to tend to her husband while he works, leaving the older wives at home with children. This was seen to create tension among the wives, because traveling together as a couple was considered something of a vacation, especially if family members lived along the proposed route. If a wife voyaging with her husband was not a potter, she would have with her the means to produce some marketable good, such as a charcoal burner and cooking implements, that she could use for making fried biscuits or other market food. One woman I interviewed in Jenn6, an active potter in town, never made pottery away from Jenn6, concentrating instead on less labor-intensive work like such food preparation. The ultimate purpose of leaving Jenn6 was economic: a smith, potter, goldsmith-any of the traveling artisans--judged that the profits to be made in the rural areas would exceed those predicted for Jenn6 in same period. Except in the case of the unmarried smiths who saw the months away from home, en brousse, as a way of surveying the Somono villages for marriage possibilities, traveling usually signalled that the participants needed to boost their income. So even though people often looked forward to the traveling, married people generally considered it a disruption, and the economic prospects had to be favorable to consider going.

A smith chose the villages where he would go based on many variables, chief among them being his prior history with that village, the ethnic groups living there and what that implied about the probability of its having resident artisans, and especially the success of last year's harvest and the projected success of this year's.
The duration of each man's absence from home differed and was typically not known at the time of departure. Some men left Jenné when the first rains came (May-June), when farmers had begun breaking up the soil in preparation for planting. Dabas and plows from the year before would need repair, and some farmers would be buying new ones. Although there was an increased demand for forging in these months, the profits that could be made right then would amount to little. Villagers would be nearing the end of their grain stores from the year before, would feel they could spare little of that grain to pay for services, and might have no cash at all. The best villages to head to in this case would be those that had a good harvest the year before, and were facing the next one with optimism; in 1983, these were mostly the lowestlying villages in the Pondori, where the meager floodwaters had pooled, and where the rice crops had therefore been the best. It was possible to imagine that in times of more robust agricultural yields, the outpouring of smiths from every family during this first period would have been substantial.

The ethnicity of the target villages was highly relevant to their attractiveness for the smiths. The majority of villages in the Pondori fell into three major groups when categorized by the ethnicity of their populations: Fulani/RimaiBe, Marka/Bozo/Somono, and Bambara. Any of these villages might have resident blacksmiths, either native to that village, or transplanted there for personal or economic reasons. Bambara villages in this area occasionally had Bambara numu smiths present, and sometimes boasted emigrated Somono numu smiths. Fulani/RimaiBe villages often had one or more transplanted Somono numu families, and reportedly, an occasional griot family involved in ironworking (baylo, in Fulfulde). Virtually all Marka/Bozo/Somono settlements had several Somono numu families permanently residing in the village. Villages lacking smith families were usually small ones, with no Somono contingent at all. It was not simply the villages with few or no smiths of their own that attracted traveling smiths, however, although such villages that produced a good harvest might be especially attractive.

Somewhat counterintuitively, a recurring choice of blacksmiths was to go Marka/Bozo/Somono villages where numu were already present. There they would set up an open-air stall or use the foyer of a host's residence, and essentially compete with the local smiths for business. They competed very favorably in these settings; both Jenn blacksmiths and their rural clients attested to the superiority of the tools and knowledge of urban smiths, although the availability of a better range of raw materials might be a contributing factor to this as well. Certainly Jenne's blacksmiths had greater demand year-round for their services than did village blacksmiths, which could hone the former's expertise to a higher degree. The village smiths were not necessarily glad to see their competition arrive every year. A smith in Jenné told me of a curse the rural smiths used in former times (“before Islam”) to prick and bum the hands of the intruding smiths. Indeed, there could be a basis for hostility. However, the fact that this is such a widespread practice leads to the conclusion that what the smiths on both the rural and urban side of the encounter have to gain is the transference of
technical and economic information, the discovery of potential marriage partners, and a perpetuation of social ties that could strengthen networks. Whatever the social potential of a visit, if no designated surplus of grain were available in a village, it was not likely to be an important stop on the smith's route.

The convergence of blacksmiths (and other mobile specialists) on the areas of the Pondori with strong harvests illustrates an important socioeconomic mechanism. In good years, the patchwork landforms of the Pondori provide more than adequate food resources, including large amounts of grain for the market. Blacksmiths and other secondary producers could go to rural destinations based on any kind of personal criteria, and expect to find both willing customers and plentiful payment. Food was so abundant that virtually everyone, in every location, had access to it in one way or another. People such as blacksmiths who did not necessarily plant fields of their own could be assured of ample grain for the year by moving out to the countryside and providing their services in exchange for it. The situation in the Pondori since the onset of the most recent drought in the early 1970s is witness to the same redistributive mechanisms. The paucity of villages, however, with any grain that can be designated as surplus forces a higher proportion of the secondary producers and dependent groups, such as griots--who have culturally legitimized claims on a piece of any harvest merely for being present during it--to a lower proportion of settlements. It is an effective ploy for the visitors, because the trickle-down of grain from remote villages in the hinterland to artisans from Jenn6 and other locations would be essentially nonexistent if the artisans did not go to the source. The proprietors of any crop expected to part with a portion of it right on the spot, during the harvest. Anyone who helped in the harvest got a portion of it, measured out in calabashes, along with everyone who contributed to its care. When the bulk of the crop has been brought in, people with no better access to food, frequently old women, walked among the stalks and picked up individual grains of rice and broken millet fingers that had hitherto escaped notice. One family's hectare of grain thus found its way to many households, even if it was the only hectare planted. In drought-ridden years it was the burden of the lucky villages and the lucky families in any particular village to provide a measure, however small, to anyone who made themselves available at harvest.

An aspect of the system of traveling artisans that underscores its redistributive function is that village specialists as well as urban ones relocated to other rural sites. Around Jenn6 I witnesses this pertaining to Fulani griots, Dogon and RimaiBe weavers, and Somono numuw, both smiths and potters. These villagers cited the same reasons for leaving their homes as did those from Jenn-to go where grain was plentiful, to go where they would have a large or at least fresh market for their goods, and to exploit family networks. What is harder to explain is what real advantage they would have as interlopers in villages where artisans of the same ilk were already present, because they did not have the perceived advantage of being urbane. Nevertheless, having been impressed by the vertical urban/rural artisan traffic, I found it striking that these movements happened in relatively horizontal situations as well.
Once the bulk of the planting was done, in the heart of the rainy season, smithing and many other activities in Jenn6 went into a kind of hibernation. Farmers had little use for agricultural tools while the rice and millet plants were maturing, and most smiths were back in Jenn making pirogue nails and other low-investment mainstays. Spending throughout the society slowed down during these months (June-October) because so much depended on the harvest. Everyone talked about the rains, and which parts of the Pondori were looking the best agriculturally. As far as specialists go, these were among the better months for the masons, because of all the repairing that had to be done during the rains; even if brief, they always caused damage to mudbrick buildings. The next, and much larger, flurry of smithing activity peaked two times as the crops mature: with the millet and sorghum in October or November, and with the rice a few months later (these months varied, depending on the

varieties used, the length of the rainy season, and the extent and depth of the floodwaters in the Inland Niger Delta). Smiths traveled to villages where large crops were coming in. They were no longer looking for where they might be needed so much as they were looking for villagers who could afford to refurbish or replace their tools. During the smiths' circulation, they received payment exclusively in measures of grain. Smiths occasionally accepted grain as payment from people in Jenn6, but because their prices were adjusted to the cash-based economy of the market town, they preferred cash. On market day in Jenn6, Jenn6 smiths might turn down payment in grain from a local client and demand it from a villager a few minutes later. In the Pondori villages the amount of currency was small to begin with, so farmers were usually more than willing to pay in grain. The smiths profited from this situation, because they returned to Jenn6 with more grain, which cost less in the villages than it did in Jenn6, than they could buy with cash earned from village customers. Smiths would have to lower their prices in villages if they were to want a cash payment. They would then have to buy commercial grain in Jenn6, which was the most expensive option. Their objective was grain, enough so that none need be bought during the coming year in Jenn6. Based on estimates of the agricultural potential in this part of the Inland Delta in more verdant times, one does not find it difficult to envision how blacksmiths and some other specialists, such as griots, might have been able to acquire all their subsistence cereal directly from customers, in Jenn6 as well as in the villages. Smiths often went to two villages or two sets of villages in the harvest period--one for rice, and one for millet. They were usually leaving behind in Jenn6 a family operating a shop and cultivating its own fields. What they had to gain in the villages was judged to be worth their absence from the shop and fields. Minimally, they would strive to bring home enough grain to supplement their family's own agricultural yield, but in a lean year when they were forced to accept small payments in the villages, they often returned with less than they needed. At the very least, however, they may have been fed for some weeks and months by people in the villages, thus removing from their own families the burden of another mouth to feed (although occasionally, wives remaining behind in Jenn6 sent certain foods out to their husbands). But they would have to create new ways
in the coming year to make up for the losses. To make up for the absence of a family member who was out of Jenn6 when the family had work to do in the fields, the family would hire one or several wage laborers, who would be paid with room and board and a portion of the crop yield. The smiths working in the villages had to at least make up this loss to the laborers to break even. The smiths who stayed behind in Jenn6 had their hands full during this period because the demand for their services there was also peaking. Market days brought in numerous villagers who had limited access to blacksmiths, or who wanted the expertise of the urban smiths. This was the period during which much of the ordinary merchandise that had been made and stored since the slow months would be sold off. The profits from this period would allow for large investments in raw materials for the coming year, and would buoy the families through the spring months of relatively easy spending, until the feelings of solvency based on the last agricultural season faded and people faced the frightening dry months (February-May).

The Tuareg Metalsmiths in Jenn6
The residents of Jenn6 had a secondary source of differently-styled handmade tools, weapons, household articles, and jewelry in silver, silver alloys, and baser metals. Once or twice yearly several itinerant Tuareg artisans native to the region of Timbuktu set up shop at the southern end of the marketplace. They referred to themselves as bijoutiers in French—jewelry makers, what the griots goldsmiths were also called. They claimed they were not artisans by ascription, but by profession, and seemed to attach great significance to this difference; they said that blacksmiths among the Tuareg were not considered actually Tuareg, but members of an endogamously maintained group, which included women who were tanners and leatherworkers. The men who came to Jenn6 would seem to fit a description of the endogamous artisans, when compared to the ethnographic literature, but the literature could be telescoping a more variable situation, as it has done concerning Jenn6’s artisans. The Tuareg in Jenn6 spent most of their time making bronze and iron knives and doing general repairs. Although they claimed not to be blacksmiths, they said that they made iron farm implements at home. In Tamasheq, the Tuareg language, the word for these artisans is Iniden (pl., Ened, sing.), translated as a special sort of handiman (Keenan 1977). The role includes the services of "armor, blacksmith, jeweler, woodworker and engraver, healer, herbalist, poet, musician and singer, and general consultant on matters concerning festivities and ceremonial activities" (ibid.:95). Literature on the Tuareg cites that Iniden form an endogamous group, but also that they could intermarry with slaves historically. They are valued for their many skills, but looked down upon for what is considered a distant, uncertain origin outside Tuareg society strictly speaking. In addition, they are believed to have mystical powers, inspiring the kind of suspicious fear that gives them the right to make demands on the rest of the population, much as the griots of many groups do. Their pattern of periodic visits to Jenn6 resembles the circulation of Jenn6 artisans to the villages. In the late 1970s and early 1980s hundreds of Tuareg families had been driven southward from Timbuktu to the Mopti area in search of better
grazing lands and other economic opportunities; they were generally camel pastoralists, and

throughout the Sahel they were converging on cities to supplement or replace their traditional livings. The Tuareg artisans in Jenné were not truly part of this mass movement. They were still residents of the Timbuktu region and regarded their trips to Jenné as extensions of their ordinary range of circulation. The effects of the drought around Timbuktu drastically decreased the amount of money, grain, or animal products available for spending on nonsubsistence goods, so the possibilities for artisans profiting in that area were few. Because they provided somewhat different services from those of the Somono blacksmiths and jewelry in different styles from that made locally by Fulani and Songhai, they always had enough business to warrant the long trip to Jenné, where they said they had been coming for over a decade.

Among the specialties of the Tuareg metalsmiths were inexpensive repairs of industrially made goods such as aluminum teapots and kerosene lanterns, repairs of locally and industrially made guns, and aluminum and bronze imitations of expensive jewelry, including bronze replicas of gold teeth. Many of these products and services could and would be provided by Somono smiths and goldsmiths if the Tuareg did not come to Jenné. Part of their popularity came from the novelty of their presence, and part from their skill in fixing, at very low cost, virtually anything made of metal. Also, the Tuareg came from outside Jenné’s immediate cultural sphere but were a direct link to its intimate historical partner, Timbuktu. When they rode into Jenné on their camels, draped in black cloth, people in the town would stop and stare. Many families in Jenné had close relatives in Timbuktu, and identified with and enjoyed the strong Saharan presence of the Tuareg. So, besides being the best source in Jenné for exotica from the north, they brought the welcome atmosphere and news of Timbuktu with them. This latter contribution cannot be measured directly, but was one of the qualities of even only seasonally itinerant artisans that made settled populations throughout the Inland Niger Delta receptive to them. Because they moved among villages and towns bound together by many ties, but whose residents were often themselves not able to travel frequently, artisans were an integrative force in the Delta, and it seems likely that they were in the past as well.

The workshop of the Tuareg tinkers was set up under a rectangular canopy of straw matting, held up by four corner poles. Three wooden blocks approx. 40cm long, 25cm wide, and 30cm high were set on the ground, not sunk into it as they would have been in a permanent shop, and into each is hammered a small light-duty nail-shaped anvil. It was characteristic of artisans’ tool assemblages while they were traveling that their materials were the lightest ones they have available to them. The quenching pot was a movable bowl set on the surface. An iron ring around the tapered base of the anvil prevented it from being pounded any farther into the log, the same arrangement as the Jenné blacksmiths had. The bellows were similar in form to the local numu models, but were different in having a square yoke of wood holding the bellow pipes in place, rather than the numu discoidal plug, and in the handles attached to the open end of
the bags, which were several centimeters longer than on the local bellows. The tools resembled those that would be associated with a jeweler's assemblage rather than a blacksmith's—crucibles, a small set of scales, and several hinged wooden boxes containing the most expensive materials and specialty tools. The men used small metal boxes and mud bricks as molds for their molten metal; they chipped a niche into the bricks as each need to cast arose. Everything was packed up and moved to their temporary quarters at night except the anvil. Scatter accumulated around the tinkers during the day, but in the few months at a time the tinkers were in Jenn, not enough charcoal and other debris was deposited to change the topography of the floor appreciably. The fire pit was a semipermanent feature of the workspace. The men dug down into the hard-packed dirt, hollowed out a space that they then filled with sand, and gave the pit structure with several mudbricks. Another mudbrick was used to hold the bellows pipes in place. While the tinkers were in Jenn they stayed with a Songhai host family, where room and board was provided in exchange for free repair work. This was the most common lodging arrangement in Jenn and in all of the village cases I encountered. Each tinker paid his way for several months through services, and while he was away from home, removed the burden of his own support from his family. Many artisans viewed this as the most economical way of spending time, although it necessitates leaving their families behind. None of the tinkers who came to Jenn ever did so with their families; they came in groups of two or three and were usually brothers ("mime p re, mime m&re" as it is said, "same father, same mother"), half-brothers, or cousins. They brought with them tanned animal skins prepared by their wives and daughters (Ineden women are tanners as well), and worked them into decorative scabbards for the knives they made.

Chapter 7: The Potters
Studies concerning African pottery making are increasingly available; Gosselain (1993:2) has noted "a continuously renewed ethnoarchaeological interest in pottery," which has provided a core group of studies that, in West Africa, have been enhanced by the work of art historians in particular. West African potters are predominantly women, whose talents have often been overlooked because of their sex and what was considered the utilitarian and perhaps unremarkable nature of much of what they produced (see Conkey and Spector 1984, GroszNgat6 1988, Herbert 1993, Wright 1991). Yet the omnipresence of pottery in many societies and the information it carries (e.g., van der Leeuw and Pritchard 1984; Arnold 1985; Kramer 1985, 1997; Longacre 1991; Lindahl and Stilborg 1995; Stilborg 1998), in addition to the increased interest in women's agency and creativity, have helped turn this around. The result has been an increasingly thoughtful contextualization of West African pottery production as it relates to other manufactures and social and economic processes generally. The linking of potters to blacksmiths, as is the case in many West African societies, has often resulted in the neglect of the former as a separate group of specialist producers (Frank 1994, LaViolette 1995). Potters are involved, as are blacksmiths, in a pyrotechnology considered by many to lie in a special physical realm, using skills learned over years of apprenticeship, to effect a transformation
on natural substances. Yet potters' work is in what Herbert has termed an asymmetrical relationship with that of smiths, for the former carries less ritual and social power (1993:21).

Drost (1967, 1968) provided a two-volume survey of potters and pottery in Africa, a starting place for such studies, comparable to Cline's (1937) survey of blacksmiths. Long-term ethnoarchaeological research based in Cameroon and Nigeria has provided exemplary works on the manufacture and meaning of pottery as well as other material culture in a variety of settings (David and Hennig 1972, David et al. 1988, Sterner 1989, Sterner and David 1991, MacEachern 1998), including David's elegant film Vessels of the Spirit: Pots and People in Northern Cameroon (1990). Krause's ethnoarchaeological study of South African potters (1985) was an important early contribution to the trend in studying potters, and he has also provided a recent summary of pottery production in Africa (1997). Another cluster of important interrelated ethnoarchaeological studies on pottery making have been carried out in the Inland Niger Delta (Gallay 1970, 1986; Gallay and Huysecom 1989, 1994; Huysecom and Mayor 1993; Huysecom 1994; Gallay et al. 1996; Gallay et al. 1998). Art historian Frank studied potters among other artisans in a variety of settings in Mali, with a particular eye to linking chdines opratoires and historical relationships (1993, 1994, 1998). Gosselain's creative ethnoarchaeological work with Cameroonian potters (1992, 1993, 1994, 1998; Gosselain and Smith 1995) has helped establish historical relationships between manufacturing techniques, ethnic and linguistic affiliation, with an explicit concern for archaeological application. Berns' art historical research into Nigerian women potters and their anthropomorphic vessels has led to her suggestion that it is women, with their long association with clay in West Africa, who may be responsible for the making ofterracotta figurines in the past, celebrated objets d'arts assumed implicitly to be made by men (1989, 1993). A number of archaeologists with research interests in the Iron Age have conducted ethnoarchaeological studies of pottery producers (Haaland 1978, Raimbault 1980, Bedaux 1986, Bedaux and van der Waals 1987, Bedaux and Raimbault 1993). Other insightful studies include those by Spindel concerning Senufo women potters in Crte d'Ivoire (1988, 1989), and O'Hear's work on craft producers, including potters, in Ilorin, Nigeria, which provides insights into how the industries have changed, and how pottery making has resisted change, in the course of the last century of industrialization (1986, 1987). Potters in the Archaeological and Historical Records Specialized knowledge about craft production was at work at Jenn6-jeno at its founding, and in the case of pottery, is evidenced particularly in the volume found throughout the lifespan of the settlements. That individual artisans were creating technical systems and craft goods does not translate directly into specific kinds of social organization of production, because of the vast range of possible outcomes (e.g., van der Leeuw 1977, Rice 1981, Peacock 1982, Brumfiel and Earle 1987a, Sinopoli 1988). Based on the archaeology to date, it is far from clear how pottery production, for example, was organized at Jenn6-jeno. The pottery stands alone as
'direct' evidence, to date; no pottery-production sites have been located from which labor organization can begin to be inferred. S. McIntosh carried out extensive pottery analyses on the finds from Jenn6-jeno, and the neighboring sites of Kaniana and Hambarketolo (see particularly S. McIntosh and R. McIntosh 1980, I; S. McIntosh 1995). She conducted similar analyses based on research around Timbuktu, which shares many ceramic traditions with the Jenn6 area (S. McIntosh and R. McIntosh 1986). A suggestive but inconclusive trend in the archaeology is ceramic conservatism, over at least a thousand years, and over considerable distances (S. McIntosh 1995:163). Throughout the sequence at Jenn6-jeno, the pots "are mostly round-bottomed with simple or composite contours and a rarity of inflected or complex contours (following Shepard's [1974:231] general system of shape classification)" (ibid.). She continues, "in...cooking pots, it is possible to trace the evolution and elaboration of form ....If we then go on to consider the design syntax employed in decorating these pots, the magnitude of the conservatism underlying outward modifications in form becomes apparent" (ibid.).

Thus the Inland Niger Delta's relatively conservative ceramic traditions, especially regarding pot shape and placement of design elements (S. McIntosh 1995:157, 163; also Gallay 1986; Gallay and Huyscom 1989), are striking. Archaeological studies have shown that although ceramic conservatism is not necessarily a sign of family-based or other kinds of specialist production, it is a likely possibility (see e.g., Rice 1984, Sinopoli 1991.119ff., Costin 1991, Costin and Hagstrum 1995). In contemporary Africa, conservatism in ceramic design has been linked with specialized family-production and apprenticeship (Verdon 1979:535ff, Gallay 1986, Gallay and Huyscom 1989, Frank 1998). At this point we can say that conservatism is consisent with organized, rather than individualized, pottery production, but they need not be directly linked. And organized pottery production can include myriad sociotechnical systems; we do not have to have guild-like organization in the Early Iron Age to explain long-term consistencies (see Rice 1984, 1987:168206).

Coupled with conservatism is another aspect of the archaeological ceramics that invites comment with regard to the crafters. S. McIntosh's typology (1995:130-213), for Phases I and II (from Jenn6-jeno's founding in the mid3rd century B.C. at the latest through the 5th century or so A.D.; S. McIntosh 1999:70) includes categories of what she terms fineware and coarseware, reflecting a significant polarization in wall thickness and temper size. Fineware leaves the assemblage after Phase II (after A.D. 400), while coarseware continues as the dominant category for later periods, and the pottery tends indeed to become coarser over time (ibid.. 164). Both classes of pottery were mostly wheel-made and roulette-decorated, and their differences cannot be linked to multiple clay sources or an intended use (ibid.. 161-2; MacDonald n.d.). S. McIntosh (ibid.. 162) has suggested the possibility that the fine/coarse distinction might have resulted from the presence of different potting traditions. Gallay and Huyscom's (1989) ethnoarchaeological work on Inland Niger Delta potters has illustrated the
connection between ethnic difference and potting techniques, as has Frank's (1998) work on Bamana potters. Gosselain's (1992, 1994, 1998) and Gosselain and Smith's (1995) studies of modern Cameroonian potters underscore the cultural/linguistic differences that can lie behind differences in technical systems (also Stark 1998), particularly in the fashioning techniques (Gosselain 1998:92ff.). This will be illustrated below for Jenn6 (also LaViolette 1995). There is precious little historical documentation which makes reference to the area's artisans, but virtually no significant mentions of potters exist historically. Of all crafters who supply major components of the material culture in the Inland Niger Delta, potters alone are women, for as long as oral traditions can serve us and through the present. Even in the late 19th-, early 20th-century accounts of Jenn6's social structure, where artisans are featured as a middle category hierarchically, potters are omitted, despite the omnipresence of pottery prior to the importation of manufactured vessels. There are, no doubt, multiple reasons for this, including potters' invisibility as economic contributors within their own society (GroszNgat6 1988), but the ethnographers certainly bear some responsibility, here as elsewhere, in overlooking ceramic production (see Wright 1991). It is not until the 1960s that we see attention paid to the region's women crafters, although significant detail about their social lives is scant (Haselberger 1965, Gallais 1967, Drost 1967); studies increase in the 1980s and after (e.g., Gallay 1970; Raimbault 1980; B. Gardi 1981, 1983; also Frank 1998).

The Contemporary Potters in Jenn6
The pottery industry in Jenn6 in the early 1980s appeared to be in a liminal state, enduring because of the financial need of its practitioners and the enduring attractions of many of its products in that environment, but also threatened by industrially made products considered more glamorous and sometimes more durable, and the search by many potters for less tedious and more lucrative business opportunities. This combination of factors may have left Jenn6 with fewer potters per capita (c. 20 per 10,000 people, one per 500) than at any time in its history. However, potters continued to teach their daughters and daughters-in-law how to pot, and good quality pottery continued to be available both in Jenn6 and in the surrounding villages.

The professional potters of Jenn6, who were the most numerous and visible female artisans in the region, are associated with two ethnic groups, the Somono and the Fulani. As in the case of the blacksmiths, the women in the former grouping comprised both those who call themselves Somono, and those who call themselves numu musow, or blacksmith women (Bambara); when I refer to them as a group, I will call them Somono/numuw. The second group were Fulfulde-speaking griots associated with the Fulani, women known as buurnaajo or simply as griotes, in French. I refer to these latter as griots. In 1983 there were approximately fifteen Somono/numu and only three griot women potting in Jenn6. These two groups resembled each other in general ways--some elements of their technical systems, for example--but they were more different than alike in the majority of their techniques, in social and economic status, cultural background, and relative contribution to Jenn6's urban and rural material culture.
In the following sections of this chapter I address the membership and maintenance of the two groups, methods of production, general socioeconomic relations, the
distribution of finished products through marketing and travel, and an example of pottery mass production in the village of Soa.
The Somono/Numu Potters. The Somono/numu potters in Jenn6, like their husbands and fathers the blacksmiths, were not a formal organization, a caste, or a guild. They were a group of women related to smiths through blood or marriage, and generally distinguishable from griot potters by language, potting techniques, and kin affiliations. These women, despite the traits they had in common with each other, acted always as individual artisans and businesswomen, except in terms of receiving help from their young unmarried daughters. As was the case with the great majority of adult women in this society, potters were fully responsible for running their households in addition to any cash-earning activities they might have, so they had to integrate the numerous stages of pottery production into the normal routines of a housewife. Most women in Jenn6, indeed, engaged in various cash earning activities--the reselling during the week of goods bought in the large Monday market, costume jewelry manufacturing, cotton spinning, market food preparation--that provide them with money for such personal items as clothing, jewelry, treats for their children, and cooking condiments, responsibilities that did not fall in the realm of their husbands, although men contributed to buying these things when they were able. Women's cash-earning activities also brought them together with other women, who would keep each other company in small groups while making or selling different goods. A small number of women in Jenn6 had what could be considered full-time jobs, such as midwives who worked in the maternit6, large-scale market traders, or teachers, but these were not opportunities open to most.
It was thus not unusual for women to engage in commercial activities. The potters, however, were professionalized beyond the level of most other part-time money earners. The proportion of most potters' lives spent in the production and marketing of pottery was much higher than most other women were willing or able to spend, and unfortunately, the business was not well remunerated relative to the time spent. Potters' training extended over many years, they invested tremendous physical labor in the process, and their time investment averaged several hours per day throughout the year. Although not restricted to women born into numu families, pottery making, like blacksmithing, was tied to the social identity of the artisans.
A Somono/numu potter could originate under an array of circumstances, but it was highly likely that she would be linked to blacksmiths by birth or marriage. Despite claims of the blacksmiths and potters that their intermarriage was not required, and despite the fact that on an individual basis numerous cases substantiated this claim, it was the case that numu families preferred to seek spouses for their children among other such families. Somono/numu potting was a female profession passed from woman to woman, but usually because of agnatic kin relations; that is, unless a potter married a blacksmith, she
would not be inclined to instruct her daughters in pottery production, although in principle she would be free to do so and might continue potting herself. In my experience in Jenn6, there was slightly more play in the relationship between numuw women and whether they were potters, than between numuw men and whether they were blacksmiths, but the correlation was still strong. Most Somono/numu women engaged in pottery production on a long-term, regular basis were born to blacksmiths and potters, and married blacksmiths known to or related to their families. At three or four years old, a potter's daughter would be playing with clay alongside her mother as she worked, and her apprenticeship would be part of her normal upbringing and socialization. Daughters born to a family with "mixed" parentage, such as one headed by a Somono fisherman or farmer married to a potter, would probably learn to pot, but whether these girls grow up and continue to be potters, and teach their own daughters, would depend largely on whether they married blacksmiths. Women had little motivation to teach their daughters to pot without further linkage with a numu family. There were no fully independent families of Somono potters, as there were no such families of blacksmiths counted among the Somono, or in Jenn6. During my research I encountered only one Somono woman, not linked to a numu family, who was potting. She explained that her mother, a Somono woman from the Marka/Bozo/Somono village of Kobassa (pop. 963) about 10km from Jenn6, had undertaken to learn pottery as a young woman for financial reasons, and had learned from a numu potter. Although she never married a smith, she taught her own daughter to pot. The woman I interviewed had no daughters and was ambivalent about encouraging her nieces to pot. Despite the individual nature of the actual technical process, the motivation to perpetuate a line of potters appeared to be strongest in the setting of a large, multi-artisan family where women's pottery-making was normal and supported socially. Somono women from non-numu families regularly, if not frequently, married into numu families. A woman in this position would begin apprenticeship as an adult, usually learning from her new husband's mother, aunt, or sister. Such an apprenticeship remained on a casual basis, with normal age-status relations regulating it; there would be no contractual relationship or predetermined length of apprenticeship, and no official release of the trainee, similar to blacksmithing (but in contrast to the case of masons, as will be explained below). Within families headed by blacksmiths, the social pressure for a new wife to learn to be a potter varied, depending on variables such as the husband's financial status, his age relative to hers, and how many other active potters might be part of the household. Pottery production was extremely laborious work for the profit involved, as were nearly all the artisan professions with the possible exception of goldsmithing. Many women would discontinue their involvement in pottery production if they were not depending on it financially. Under the drought-exacerbated economic circumstances of the late 1970s and early 1980s, few trained potters could afford not to remain active, unless they had another more profitable economic alternative for themselves, or their husbands were making much more money than the average blacksmith or
other worker. Female labor was not as valued as that of men, and ceramics were not so highly regarded as possessions that potters could increase their earnings by raising prices. Most Somono/numu potters, therefore, spent a great deal of time potting, made a small to moderate profit (several thousand Malian francs, $3-5, in a good week), and clung to this option partly because so few alternatives existed for them. Cotton spinning was one of the most popular alternatives for Somono/numu potters who wanted to supplement their incomes from potting, or who wanted to leave pottery production altogether, but it was not an activity unique to them. Many griot potters, first and foremost trained in the skills of praiisesinging, marriage-arranging, and other relatively highly paid activities, had other money-earning options, discussed below. As among Fulani potters in North Cameroon, "the hallmark of the successful potter is to have stopped potting" (David and Hennig 1972:24).

Several factors affected a woman's decision whether to learn or continue making pottery after marriage. An older blacksmith who married a younger woman, perhaps in a second or third marriage, might be sufficiently financially secure because of a large working family to be able to encourage a new wife not to pot, and might want to make his proposal more attractive by assuring her she would not have to work in this fashion. Older smiths who married young women often seemed to marry outside numu families, as if no longer in the position where this would be considered a favorable or necessary match; presumably such ties would have already existed in the men's lives. It is when a woman moved into her husband's family compound as the first or second wife, and numerous women were engaged in ceramic production there, that it was most likely that she would continue to pot or learn how to do it, because of the socializing benefits of becoming an apprentice to one of the other women.

Somono women who became potters did not identify themselves fully with the numu in the manner in which their children would. As explained in reference to the blacksmiths, the term numu—with its evocation of the power to which blacksmiths, among few others, have access—is not one taken on and cast off at will. The Somono/numu potter in a blacksmith/potter or blacksmith/Somono marriage, would call herself numu muso, blacksmith woman, because of her father's status. As in the case with the blacksmiths, she might also call herself 'Korongoy,' as explained in Chapter 4. In most cases it was clear that these potters considered themselves numu musow with ties as well to the larger social grouping of Somono. In the following discussion, I do not distinguish between the Somono/numu potters who were trained as children or as adults, unless it is important to her story. There were also Somono numu women not actively engaged in pottery production, but who were numu musow because they were daughters of blacksmiths.

The Fulani Griot Potters. As far as my inquiries indicated, there were no historical relationships that anyone could articulate between Somono/numu and griot potters; they were separate and somewhat competitive members of the economic community. Although griots are associated with many West African ethnic groups and are a familiar element of society, their association with craft production in Fulani society was the only such relationship in this region. The pottery
production itself that some Fulani griots undertake is not an especially important marker of their identity. Pottery making could be seen as vocational among the Fulani griot women, because there were several other customary alternatives for them, including tattooing of women's lips and gums, performing female circumcisions, coiffuring women's hair, specializing in marriage preparations, and praisingsing. These female artisans were not considered a separate group among the other Fulani griots—all of the people with whom I discussed the structure of the Fulani griot system left the potters out of the structuring scheme by which I attempted to describe the population. One griot potter in Jenn6, for example, who had been widowed for a decade, was referred to me as "the old griot, the widow of so-andso," rather than by her own name, coupled with the fact that she was a potter. The occurrence of pottery making among griot women was therefore less expected than among the Somono/numu musow; it seemed that many more of the griot women chose not to be potters, but to pursue the other possibilities traditionally open to them.

Griot potters and women generally could be wives and daughters of a number of different griot artisans—most commonly goldsmiths, woodcarvers, woolweavers, and leatherworkers. Because of the wealth goldsmiths were exhibiting in the early 1980s, their wives tended to reject the drudgery of pottery production. Instead, they engaged in praisingsing, marriage preparation, hair plaiting, and tattooing, supplemented with small-scale commercial ventures such as cotton spinning and making beaded and woven plastic costume jewelry. Griot leatherworkers and woodcarvers, who earned much less, often were married to women who kept pottery as a supplemental activity to praisingsing and so forth, or if they were not skilled in the latter (they should be good singers and have strong, outgoing personalities), as the main source of their own income. Exceptionally gifted and popular female griots tended to earn more money at weddings and other gatherings than did their husbands. Male and female griots were paid in lump sums at these events, harvest, or any other time when family wealth was changing hands. The slow and steady incomes earned by potters or leatherworkers over several months from their artisanry could be eclipsed by the earnings made during a single day at such an event. These incomes were unpredictable, however, and the average griot family was relatively poor.

Because griots did not plant fields or maintain herds of their own but were dependent fully on the generosity of patrons and the profits of their crafts, economic pressures such as those resulting from the drought made it essential to continue their craft production. Trained potters were in the position, unlike many other women with businesses, to resume their artisanry with a small investment of capital (or with entirely their own labor); although their labor investment was high, pottery production was a guaranteed source of income, even if that income was modest.

While the boundaries of the Fulani griot population, male and female, were clear, those of the potters within that group were anything but (LaViolette 1995). Many young girls, most often the daughters of griot potters, were trained throughout their years at home in the techniques of pottery production. It appeared to be less
frequent among the Fulani griots than among the Somono/numu that an adult woman, a newlywed for example, would learn to be a potter, although it would be possible in principle. Those women who had the skills of a potter used them when they were efficacious; those that did not had the range of economic strategies described above from which to choose. It would not be considered an especially good marriage arrangement, although it happened, for the daughter of a griot goldsmith to marry a leatherworker.

In sum, Jenn6's two potter groups added new potters to their ranks in a basic mother-daughter apprenticeship system, that included other senior-junior arrangements when an irregular situation arose. Numu-potter or numuSomono marriages produced the only children considered truly numu. Griot exogamy did not appear to be occurring in Jenn6 during the time of this study, nor was admitted to as a previous occurrence. Griot potters and their husbands, whatever the professional status of the latter, formed a closed system, although trained potters usually had a range of other professional choices uniquely available to them that were ascribed at birth. Because pottery production was physically demanding and low paid--less desirable than most other women's alternatives available to either Somono/numu and Fulani griot groups-the women who spent the most time making pottery did so largely because it remained their own best economic option and because their families were dependent on the income.

Techniques of Pottery Production in Jenn6

The Somono/numu potters came from six interrelated families headed by blacksmitthers, and numbered 15 active potters in 1983. In that year only three Fulani griot potters were still working in Jenn6. Villages in the countryside were home to hundreds of other potters, both Somono/numu and Fulani griot. What is described below in terms of technique applies generally to the rural potters as well, based on my observations and on what potters said. Although my experience in the rural areas was limited to four villages, what I saw of the pottery that came into the Jenn6 market in addition to what I saw being made, led me to the conclusion that the techniques varied little within these groups in the vicinity of Jenn.

The techniques used by the Somono/numu and griot potters differed, but preparation of the raw materials proceeded nearly identically in both technical systems. The division was marked by the formation principles of the objects. The Somono/numu used continually moistened clay, hand-rotated and supported on a turntable, called a tournette or slow wheel, and a basic coiling method to build up and shape their objects (Fig. 7.1). The griots used a hammer-and-anvil technique on clay prepared almost like that of the former, but which was more heavily tempered, and tempered with larger pieces of grog--bits of ground pottery (Shepard 1974 [19561]) during the manufacturing process (Fig. 7.2). The griots used no water in the building-up process, except occasionally in the forming and application of rims and bases. Two Somono/numu women with personal backgrounds away from Jenn6 used a combination of the wet and the dry processes, the effects of which are discussed below.

Acquisition and Preparation of Clay-Both Groups.
Both groups of potters mined dry, crumbly clay from spots on the periphery of Jenn’s settlement mound, down on the floodplain, found below the topmost layer of hard dirt. The clay had a red-orange tint, a predominant color in the iron-rich soils of the western Sudan, and frequently bore black, orange, and grey flecks indicative of human cultural deposits (burnt clay, wood charcoal, and grass ash). Most of the Somono/numu potters dug their clay on the eastern side of the dike leading into Jenn6 from the south, on the edge of the Souman Bani marigot; two Somono/numu women who lived in the southern and western quadrants of Jenn6 mined theirs on the edges of Kanafa and Djoboro quartiers. The griots dug their clay on the edge of the bas fond, a depression in the center of Kanafa that collected flood- and rainwater during part of the year (Fig. 4.2). Although the basfond is physically within Jenn, the most western quartiers (Kanafa and Yoboucaïna) had grown around this depression and off of the high, central mound of the town, so that the soil there was similar to the mix of cultural and floodplain deposits found around the town’s perimeter.

The division between the griot and Somono/numu clay sites did not seem to be determined by the qualities of the clay itself. Despite the modal techniques of each group of potters, women in each group incorporated aspects of the alternate technique as cited above, wet or dry, in the same piece of pottery and used clay from their habitual sources (the potters who adopted methods characteristic of those from other groups are discussed below). The choice of clay sites seemed more tied to convenient access from the residential quartiers of individual potters. The women were unable to explain the exact qualities of clay that they sought, but said that when the clay sites then in use were exhausted countless others around Jenn6 could be mined (see Krause 1997). So clay was not a limiting factor in the production system.

The women collected the clay with a daba (Bambara; kaunu in Songhai), the hand-held hoe used predominantly for agriculture. A potter transported the clay back to her workplace in small chunks, loaded in a pan or basket carried on her head. The clay would be placed in a large pottery container of water sunk 5-10cm into the courtyard dirt floor. This pot was of the same type and size as those used for household water pots, also sunk into the floor if they were round-bottomed. The clay was allowed to hydrate a minimum of a few hours, but more commonly overnight. When it was fully plastic, the potter—working and kneeling on a palm-fiber mat—scooped out what she would work with immediately and kneaded it into manageable balls, no smaller than about 20cm in diameter. Most clays were finely textured and required little cleaning of sharp objects or other impurities (Sinopoli 1991).

The only temper any of the potters added to the clay—already mixed with charcoal, ash, and burned clay bits—was grog. It was prepared in a large wooden mortar usually reserved for that purpose, but occasionally one still in use for food preparation, stored in the foyer or courtyard of the house. The potters separated at least two and sometimes three grades of grog that were designated for different purposes in the manufacturing process. The first grade was extremely fine,
resembling beach sand in texture and color, and used more by Somono/numu in their wet clay preparation than by griots. The second was composed of granules roughly 2-3mm in diameter, and the third grade consisted of little chunks from approximately 4-7mm in diameter. After the grinding, the potters sifted the grog using two tools: a folded sieve made from bamboo slats that separated the largest granules from the rest; and a mesh screen mounted in a circle of bent wood that separated the two finer grades from each other. The potter used the finest grade as a non-sticking agent between her clay and the mold or dish on which she made the object, as well as in any clay preparation that was destined for wet application, such as the ring bases and applied rims of the griots and nearly all of the numu clay. The other two grades were used in the next stage of clay preparation, with the largest grog being used primarily by the griots in their more porous vessels.

Standing on a work mat in the courtyard or in the central living room of the house, a potter would liberally sprinkle both the larger grades of grog, beginning with about four handfuls. Concentrating on one lump of clay at a time, she would throw it onto the grog from above her head repeatedly, working grog throughout the clay until the ball was no longer tacky to the touch. Spreading more grog on the mat and sprinkling the clay mixture with water, she would continue to work the clay with her heel in a two-stroke motion, pushing down sharply and then gliding through the clay with a gentler stroke. Using the mat to fold the clay back onto itself, the potter continued to add grog, working 30-40 minutes for larger balls of clay and about 15 minutes for smaller ones. Again, vessels made by the Fulani griots contained a higher proportion of large grog and more grog in general than wet clay vessels, because they absorbed a great deal of temper throughout the production process. Wet clay mixtures required a denser preparation, and therefore finer grog. The higher porosity of griot vessels had advantages and disadvantages: the walls promoted evaporation and cooling, making them more desirable for water vessels, and water was said to boil faster in them. However, they were more fragile and brittle than Somono/numu pots and therefore often commanded lower market prices.

The Fulani Griot Production Process. At this point the techniques diverged. Griot potters had a limited repertoire of products compared to that of local Somono/numu potters (Tables 7.1 and 7.2). Using the hammer-and-anvil technique, the griots made round-bottomed bowls, dishes and pots in a range of sizes (Fig. 7.3). These vessels usually had simple or folded everted rims. Most pots were left with their rounded bases, but some had ring bases applied. The griots used two chaines operatoires. Both were essentially hammer-and-anvil techniques, but one procedure, used for larger pots, made use of slabs of clay placed over a mold for quicker formation of the hemispheric base (Sinopoli 1991). With a series of tempered clay balls prepared, perhaps two large and five small balls for a morning's work, a potter would begin shaping the clay into vessels. After tempering, the clay was leathery and dry to the touch and would crack around its edges throughout the production process. Large pots included most water pots and some larger cooking pots (approximately 50cm in diameter or more, although this differed between women). For these large pots the potter
pounded the ball of clay into a thick slab 5-6cm thick and up to 50cm in diameter, using a rectangular or discoidal hammer of sandstone or baked clay. Fine and medium grog would be spread thinly on the mat to prevent sticking, and it would be worked into the clay. A waterpot of the desired size would be brought in and turned rim-down on the mat, and the potter would sprinkle fine grog over its base. She then would pound the clay to a consistent thickness until it hung down past the equator of the pot all around, using the cylindrical pounder fitted into her palm. Many large granules of grog would be visible breaking through the surface of the clay; those too large were broken up with the sandstone pounder. The potter then used a wooden paddle, about the size and shape of a cooking spatula, to slap the surface, which served to burnish it and increase the density of the walls. When this was completed she moved the mold and new base together into the open air, out of the work area and the sun, to air dry. While the base dried, the unfinished edge of the pot--usually reaching close to the ground--was swathed with rags to prevent it from drying out too much. The potter then worked on the next large pot until all large ones were at the same stage of completion and drying. When the potter was ready to complete the pots, often after working on a series of smaller ones (described below) that would also be half-completed, she would pound the first dried shell with a sandstone while it still rested on the mold to remove some of the drying cracks. She would then lift it gently off the mold. She could now turn it upright and set it on its base without damage. Typically she would rest it in a shallow, dish-shaped depression, dug into her courtyard or dirt house-floor and filled with fine grog. She then evened the jagged unfinished edge of the pot with a knife, carefully turning the pot as she supported it between her knees. Throughout the potting process the potter would be sitting on a tiny stool, no more than 15cm above the floor. With a wooden paddle in one hand and an anvil in the other (normally a cylindrical hammer), she added coils of clay (the same as had been used in the base), and continued drawing up the clay from the walls and working the pot into as spherical a form as possible (Sinopoli 1991.17). From this point there were two ways to finish the pot. The first involved cutting the jagged edge again and finishing the opening with careful paddling and shaping. The second required the use of wet clay coils. For this purpose, the potter would use the same clay prepared for the body of the pot, but soaked again in water. This clay could be mixed again with a small amount of dried, powdered donkey dung, itself containing a high concentration of fine chaff, to increase malleability; this was a technique commonly used among the Dogon but not widespread in this region. The Jenn6 potter would usually temper this clay with fine grog as well. The length of wet clay was grooved once longitudinally and this groove would be placed over the existing rim of the pot, then smoothed and shaped into a folded rim. The finished product would be left overnight to air dry and would be ready to paint the next day.
Production of the smaller griot-made pots involved fewer steps. When the desired pot was fewer than about 25cm in diameter, a potter tended to form the entire pot by paddling, not on a mold. Another kind of molding tool would be used, however. The process began with the tempered clay, hit with a fist or pounder into a shallow, carved wooden bowl, about 25cm in diameter, that had been dusted with fine grog. Once the clay had taken on the three-dimensional form of the bowl, the potter, using a wooden paddle on the inside and an anvil outside (occasionally vice versa), worked up the sides of the vessel, supporting it in the wooden bowl (Fig. 7.4). The clay was turned continuously and the bowl regrogged adequately so that the pot glided in it as it took shape, and so that the outside of the new pot became evenly saturated with fine grog. Next, the potters' technique for the small vessels was nearly the same as for the second stage of the large-vessel making, except that the wooden bowl was involved, and the small pots took shape more quickly. Once the full shape had been achieved, the potter evened the jagged edge by cutting away with a knife, and would finish the edge with one of the two techniques described above for the large pots.

The wooden bowl molds rested in slight depressions permanently fixed in the packed mud floor of the griot potter's main room or foyer. Customarily, when a potter worked alone her workspace would have only one floor-depression and I would always find her in the same spot. When inside a room, the potter's work station was usually in a corner and not more than a meter from either wall. When a second potter was present, a second depression would be located in another corner or at a meter's distance from a wall, so that the two women faced into the room and each other as they worked. Apart from this one inconspicuous and fragile architectural feature, nothing permanently marked the workspace of a griot potter. Her basic tools were the mortar and pestle for preparing grog; the mixing mat, identical to other mats and usually just one no longer in good condition; one or two wooden bowls (made by the griot woodcarvers); several wooden paddles; several pounders of sandstone or baked clay shaped as lozenges, bricks, or mushrooms; an iron knife hafted in wood, identical to a kitchen knife; the bamboo grog sifter; a ring-shaped sieve; a small pottery bowl filled with water; other bowls with soaking pigment; and small scraps of sheepskin and cotton fabric for smoothing and wrapping wet clay.

The Somono/Numu Production Process. A Somono/numu potter would set up a workplace slightly different from that of a griot. Many physical elements were the same: the large stationary pot for soaking the raw clay, most of the tools, and so on. One important difference was the actual focal point of the pottery production, which in the case of the griot was the depression in her floor or courtyard and the wooden bowl used along with it. The Somono/numu work with a dessen, or pottery turntable that rotates on a smoothed, packed, sometimes slightly raised and oiled spot on the floor of the main room of the house. The women made these turntables themselves, and they were used uniquely for the production of pottery. The turntable is thick, heavy, and bowl-shaped with most of its mass at the center and base, where it would turn
on the oiled spot. It was filled with medium-sized grog, or occasionally with straw.
The oiled spot was protected when not in use by a small piece of cloth or plastic, and sometimes an inverted dish. When a potter prepared to use the spot, she scraped the surface with the edge of a piece of calabash, remoistened it with a few drops of groundnut oil, smoothed the oil evenly, and set her dessen on it. Constant resmoothing sometimes resulted in a ridge building up around the smoothed surface. If the clay was too dried out to maintain the proper degree of smoothness, the potter would break it up and make a new one before, although this tended to happen only if the woman had not worked at the site for a long period, perhaps several weeks. The smoothed place itself was normally 10-12cm in diameter, the plateau of a small hill of dirt built up on the floor. On the dirt floors of most houses in Jenne, its elevation at the center would not be more than 2cm. Potters who lived in cement-floored houses placed a small mound of clay on the cement and created their work surface, or worked on the dirt floor of their courtyards. The dessen was operated with one hand, always by the potter herself; she alternated between rotating it and using both her hands to shape the pottery when the turntable gained momentum. The clay for the new object was not placed directly in the grog or straw, but on a saucer-shaped pottery base on which most Somono products were begun. These saucers were kept in stacks near the workplace, and were the broken bases of old pots, and small dishes made just for this purpose. The saucer acted not as a mold but as a holder, and was removed once the pot was transferred outside to dry or when a ring base was about to be applied. The potter placed her prepared clay on this saucer, after dusting it with fine grog shaken from a sifter, or lining it with a piece of plastic sheet. Nearly all vessels were begun by the potter inserting her right thumb into the center of the clay ball while rotating the dessen with her left hand, and pulling open a central cavity in the clay. She then pushed this thick ring of clay into the contour of the saucer with her fist, and with this straight-sided bowl as a foundation, proceeded to pot. Objects were built up by the potter squeezing new clay onto the inner surface of what she had already made and against the pressure of her other hand. She would intermittently turned the dessen while she worked, and although its speed was much slower than a potter's wheel, it helped her produce smooth and even wares. The clay was smoothed with several tools kept soaking in a small pot of water by the workplace, including a palm nut, lens-shaped fragments of calabash, wet sheepskin, and an iron hook hafted in wood. The actual shaping strategies differed more than those of the griots, because the forming potential of the technique was so much greater.
The Somono/numu potters made a wide variety of products, including numerous specialized cooking and storage vessels, architectural pottery such as rain spouts, ceiling-vent lids, and latrine elements, stools, portable braziers, pot lids, toys, and cylindrical bed legs. The steps used to make all of these involved coiling, wetting, and smoothing as described above. When the strength of the sides was crucial to
the building process, as with a large globular pot or a long gutter pipe, the procedure included
air-drying of the half-made object, in the same manner as described for the large-scale griot pottery, except that no mold was involved. When the partially dried object was ready to be finished, the potter scraped down the area that would receive new clay using the iron hook, or abraded the surface with a millet cob. Folded rims were usually applied to pots at the same time the body of the pot was constructed. After the body was complete and partially dried, a ring base might be added. Many water containers were meant to be fixed into the ground, so no additional stabilizing rings or legs were applied to the bases. Only a small number of cooking pots had any sort of applied base, because most were intended to rest on stands in the cooking fires; many of these pots were carinated. Functional handles were sometimes applied on the equator of large pots and on spouted pots for pouring.

Decoration--Both Groups. Griot and Somono/nunu potters used the same selection of raw materials for decorating their ceramics. The paints used by the potters were mineral-based, and made from stones and clays found in the area around Jenn6. The dominant color used by all the potters was red-orange; this was produced by pulverizing and soaking numerous grades of iron oxide pebbles found on the floodplain, most of which were waterborne, and among the gravel on major roads in Mali. The red stones that were most favored because of their deep pigment were chunks of ochre collected by the potters on nearby abandoned settlement mounds. Unlike most of the other pebbles, that were carried into this region through natural processes (and by the road builders), the ochre was present in enormous quantities on archeological sites, including in Jenn itself, suggesting that it was imported in the past from sources outside the Inland Delta. In 1983 no one in town was importing ochre or any other red pigment commercially, possibly because natural dyes were no longer of major importance. Some stones were brought in by family members after visits to other regions. All these stones were pulverized with mortar and pestle or an iron hammer, after which the powder was left soaking in a pot of water.

Greyish-white kaolin-laden clay found in the environs of Senossa, a major Fulani/RimaiBe village 6km north of Jenn6, was the source of the pale pink paint that both groups of potters used as a background to their red designs. The raw clay was soaked in water and applied to the pots with wads of cotton or fabric, and when fired turned pale pink-orange. While the women tended to scavenge for their red pigment stones, they bought the grey clay from women in Senossa who mined it and transported it to Jenn6. Grades of this clay were used widely in preparing paint for the washing of interior house walls as well. When mixed with animal dung and other organic materials and allowed to soak and ferment, it yielded a dark grey interior house paint used for accent painting, not in pottery decoration. At the time of this study red and white were the only two pigments used in pottery decoration.

The surface of Fulani griot pottery was characteristically matte and rough, covered with a network of small irregular cracks after firing. The griot potters
decorated their wares with motifs distinct from those made by local numuw in and around Jennů, as well as from pots made by village Fulani griots, although the latter ceramics were fundamentally the same in other ways. The painting styles of the three griot potters in Jennů followed a basic theme, but it was not difficult to tell which of the women was responsible for a certain pot, especially the larger pieces, which received the most decoration (Fig. 7.5).

Griot decorations in this area had a fragile appearance, which suited the nature of the pottery. All the pottery was smoothed with a self-slip as the last stage before letting it dry in the open air, after which it would be painted. A water pot usually exhibited several concentric bands of decoration around the opening, including plastic applications of rings incised with fingernail impressions; tiny stylized handles placed high on the shoulders; and delicate dots, linear and curvilinear red lines applied over white pigment. Smaller pots having larger openings, and therefore reduced shoulder areas, received less attention, often just a quick swabbing of light paint over the entire body or just under the rim, overlaid with one or two concentric bands of red.

The surface treatment of numu ceramics differed from that of the griots. The walls of all Somono/numu ceramics were slapped and burnished with paddles and stone or clay pounders throughout the production process. The dried surface was not typically cracked, and any cracks noticed by the potter would be smoothed out before the pot was decorated. Usually a potter coated the majority of the surface (leaving the bottom area, if any, untouched) with a foundation of the white clay slip. As with the work of the Fulani griots, the larger water pots bore the most design. The most common treatment was a large expanse of red extending from the simple rim down to approximately the equator. A series of naturalistic and geometric designs, red on white, encircled the central part of the vessel. Below this, the pot might be left with only the whitish paint, or painted red. Some potters applied a horizontal ridge above and below the central design register, and might incise these ridges. Below the equator, the potters might use a string roulette to fill the area quickly with a pattern (Fig. 7.6). Thick, vertically-placed loop handles were sometimes applied to the area between the shoulder and the equator; women used these to lift the pot up onto their heads for transport.

Small Somono/numu pots bore a variety of quickly applied designs, mostly linear bands above the carination. The most distinctive aspect of their painting was the high gloss the potters achieved by burnishing the paint with strings of baobab seeds, called sirakolo in Bambara, and koijeh in Songhai (Fig. 7 7). The burnishing was usually limited to the broad expanses of red, either on large or small pots, but most often seen on the former. Not all women bothered to do this, but the burnished paint was considered more desirable in the market. Pieces of architectural pottery, such as rain spouts, were not painted over much of the surface. The rain spouts generally were decorated with some quick rouletting and incised, concentric striations around the rim exposed to the street; sometimes the potter would paint three or four red stripes running longitudinally on the gutter as well.

The Firing Process--Both Groups. The griot potters as well as the Somono/numuw fired weekly on Sunday nights throughout the non-rainy months (Fig. 7.8).
Monday market in Jenn6 was the impetus for this scheduling, because it was more practical to transport fired pots on Monday morning directly from the firing site to the marketplace than to transport them home first. Although some women employed donkey carts for transport, most women carried their wares in headloads. Women rarely sold all their new pots on a market day, so in the evening the unsold pots were carried home to store, to sell from the house during the week, or to carry back to market the following week. A surplus of unsold pottery usually did not affect how much new stock the potter would make in the following week. Potting activity is curtailed during the rainy season because most potters cannot store and keep dry enough fuel for firing, among other reasons. Whatever is stored up to that point can usually be disposed of during those months, June to September.

Unlike the Somono/numu potters, the griots in Jenn6 did not share a common firing site. One woman fired directly behind her home, perched on the edge of the steep settlement slope overlooking the floodplain. Another fired in front of her home in a widening of the street, in a newer part of town (Yoboucain) where houses were not densely packed. The third fired in an abandoned, roofless house facing the basfond. This solitary firing pattern was one of the most noticeable differences in the actions of the two sets of potters. Most of the numu potters took their unfired pots to the hill in front of the Franco-Arabic school, which perched on the south side of the marigot surrounding Jenn6, near the main, southeastern entrance into town. There the breezes were reportedly better than closer in, for keeping the fires smoldering overnight. The firing procedures were themselves identical.

Two materials were collected for the firing: dried cow dung and grass. Those women who could afford the outlay of cash paid a laborer to collect both materials from the floodplain, at a flat rate that included the rental of the donkey and cart. Another option was to pay laborers to collect and pile the materials in one spot, and then pay for a cart to bring everything back to the house or firing site. Potters with the least solvency went themselves for the fuel. Married potters were most often able to designate their profits for their actual work expenses and for personal items, such as clothing, for themselves and their children. Most potters who were not the sole supporters of their families had sufficient money to keep fuel stored in abundance in courtyard and vestibule corners, or in large floor-to-ceiling niches in the wall. The drought, which had caused most of the formerly rich pasturage around Jenn6 to disappear, also increased dramatically the distance a potter or her worker had to go to find the quantity of dung that would have been readily available adjacent to Jenn6 in the pre-drought days, according to the potters. This handicap was one among many that hurt the production of pottery in town, because profit was too low to absorb the increased expense, and the price of pottery could not be raised accordingly. The potters did not compete with women collecting fuel for their kitchen fires; in Jenn6 women used wood in their kitchens, and in surrounding villages, wood and millet stalks; women also used charcoal in small braziers. Dung was a desired fertilizer when cattle were roaming
close to town, and were encouraged to graze on what was left after harvest, where they would fertilize the fields for the following year. The amount of dung the potters collected, they said, was not significant to undermine this system in the old days, and more recently, the farmers had had to do without the cattle dung almost entirely.

The quantity of dung and grass used in a firing varied from time to time and woman to woman, depending primarily on the number of pots she intended to fire. The firing process involved no kiln construction, similar to most pottery-making traditions in Africa. Dung was placed on the ground and pots overturned, nested, and piled on top of each other with dung and straw liberally packed and sprinkled throughout the assembly. Dung was concentrated toward the bottom of the pile, and straw heaped atop to contain the burning, but both were mixed throughout. The fuel was lit in the evening, and allowed to burn through the night for approximately 12 hours. The fuel to fire one day's work, such as two large water pots and 15 cooking pots, was about two to three bushels of dung and five of straw.

Losses in the firing also varied. Frequently in a small firing a potter would experience no losses at all, or very few. It could also happen that the explosion of one pot, stacked against others, could trigger the destruction of the entire lot; one Somono potter told me that once she lost some 60 pots in such a mishap. Because the fuel is cast among the pots themselves, large blackened areas on the pot surfaces often occur where dung has rested and burned.

Despite the fact that no permanent structures are associated with the firing sites, the sites usually were noticeable between firings because of the distinctive colorations left as a result of burning grass and dung. The different grasses burn down to a pale orange-colored ash and the cow dung leaves pale greyish purple ash (they are usually deposited as a mix; Munsell value for the grey was 5YR 7/1 and for the orange 10R 6/2). Discoloration below the surface of the ground was dependent on the character of the soil (10YR 5/3 was a common Munsell value for this). The griot women all fired their pots on the hardpacked clay surface of Jenn6 itself, in areas where years of rubble had mixed into the dirt: in the street, in abandoned houses, and on the edge of town. In these cases no characteristic single color resulted from prolonged firing, but rather a mottled assortment of pinks and blacks. The site itself was usually circular, with an average diameter of one and a half meters. Choice of a firing site by the griots seemed dictated by ease of accessibility and to some extent protection from wind, because too much would cause the fire to burn out quickly before the optimum firing time for the clay was reached.

The site of the most Somono firing, away from town (although there had been constructions on the site in the past), was characterized by a series of the large, purplish circles on the ground and broken and sometimes melted bits of pots, or wasters, destroyed during the firing. Potters tended to use their favorite spots over and over, so that the earth was hardened beneath the surface (Fig. 7.9).

Potters' Social and Economic Relations
Both integrating and non-integrating social forces were at work among the potters in their groups, as among the blacksmiths. Despite their common work and shared cultural, social, and family identities, the women almost unanimously denied that anything bonded them together at all; they saw themselves as independent agents rather coincidentally involved in the same business, taking for granted the other bonds. To characterize their social and economic practices as they relate to pottery production I focus on residence patterns, marketplace activity, and migration to rural areas for the production and marketing of ceramic goods. The residence patterns of the Somono/numu potters in Jenn6 showed both dispersal and clustering tendencies; in most cases these could be related to kin-based economic and social relationships. These potters operated in two clear social circles, the larger one being the core group in Seymani and Algasba quartiers. These ten or so women were the wives, sisters, and/or daughters of those blacksmiths (one Kass6, one Samassekou, and two Sounkoro families) who worked in three adjoining workshops in Seymani and the sole shop in Algasba. Whether these families were socially close because their houses were located in the same part of town or whether they have actively sought to live near each other because of close family ties was not clear, but the latter seemed more likely. Apart from the actual social circles, there seemed to be an ingroup and an outgroup of families, with the ingroup determined by the men in those families. The smiths in the older part of town, beyond having their shops clustered together, seemed to be especially close, and their families had intermarried often. The outlying families included one in which the women did not pot, and one in which the potters had moved relatively recently to Jenn6 upon marriage. It appeared to be the men who shaped these family groupings, although women had a separate social life mostly comprising frequent social visits and sharing housework when they were not producing pots.

Of the five Somono/numu potters who were not part of the geographical cluster in Seymani and Algasba, only three did not appear to have close personal ties with the core group of families. These three women—Na Kontao, her daughter-in-law Hawa Kontao, and Kadidia Samassekou—were tied to two blacksmiths who were not part of the core group. The first woman was the ex-wife of the only Arma blacksmith in Jenn6. Kadidia Samassekou was the third wife of that same blacksmith, and did not mix with the other families to any noticeable extent. Although she was a Samassekou by birth, she was not closely related to the Jenn6 branch of that family, but was born near Mopti. She was one of two Somono/numu potters who used the hammer-and-anvil method, typically associated with the griot potters in Jenn6. The most geographically isolated Somono/numu family was in the westernmost quartier of Kanafa. The family consisted of the one Jenn6 blacksmith who was a marabout as well, Sekou Bilakoro, whose sister was married into the core group, but who himself appeared not to be well integrated there. He was considered by other smiths to be a powerful marabout, and a less than impressive blacksmith; the fact that he was brotherless in Jenn6 might have contributed to his isolation. Niamoye Nientao, his
fifth and, as of 1983, only wife, and the only one of his wives who was still a practicing potter, and his sister Kadidia Bilakoro who lived in Seymani, were very close. It did not seem a coincidence, however, that his home was on the outskirts of town, or at least not in the neighborhood most associated with smith/potter families.

His status isolated his wife to some degree. She was not a native of Jenné, but of Siratinti, a small Bambara-dominated village with families of many other groups, including Bozo and Somono, 8km to the northeast. She was the second of the two Somono/numu potters in town who used the hammer-and-anvil method; she used it to produce the bottom half of her large pots and all of her small ones. She attributed this to having spent her childhood in the house of her maternal grandmother outside of Mopti, in a predominantly Fulani village where even the Somono/numu potters utilize this method characteristic of Fulani griots. This was the natal village of numu potter Kadidia Samassekou, who like her, used hammer and anvil, supplementing it with coiling. Although the two women knew each other as children and were friends, neither knew how the other woman potted, according to both of them; each believed that she was the only one taking advantage of the convenient mold technique. Because the resulting pots looked completely consistent with Somono/numu pots generally, and because they did not work together, there was no reason for either to notice. This small example illustrates how techniques considered exclusive to certain groups in fact wander back and forth across ethnic boundaries, but their paths could be explained through exposure to techniques due to geographical proximity.

The number of Fulani griot women in my sample was small, and making conclusions based on their interaction with each other was difficult. The only place I saw the three together was in the Monday market, where they sat at a considerable distance from where Somono/numu potters and village potters (regardless of ethnicity) were seated. The three griot potters were related to each other; two were distantly related, and the third was the ex-wife of a griot leatherworker married to one of the other two women. Despite some bad feelings, all three helped each other out in the market, particularly the widowed potter who had no daughters to share marketing responsibilities with her. Market day was burdensome for Jenné's potters, because their marketing role conflicted with those of cook and hostess on this day of heavy socializing, especially with relatives and friends who come into Jenné from villages. Women who did not have a daughter to do the shopping and cooking for them had to leave their pots attended by another vendor, and this was a handicap to sales. These problems manifested themselves less frequently among the Somono/numu, whose numbers were greater and and had more chances to have a close relative present to act on the potter's behalf in the market.

Of the Fulani griot families, many had abandoned craft production to concentrate on praisessinging and the related ritual tasks, which in an urban setting could be lucrative. Many had also invested money in business, an option that in a village setting would be difficult but which was possible even in a center of Jenné's
medium size. The three women who were still potting in Jenn6 were not members of wealthy griot families.

Seasonal Travel to the Hinterland

Potters of both ethnic groups expanded their markets each year by moving temporarily to villages in the countryside, producing and/or selling ceramics, and being paid in measures of grain. As in the case of the other artisans, grain was the motivating force behind this rural activity. The decisions whether and where to go were made on a family basis, and were generally in tandem with the plans of the husbands if they were present. Childless couples or those with one small child often went together on these trips. Once the families had grown larger, the women more often stayed home while the blacksmiths (or other artisans) went to the villages. When the women accompanied their husbands, they took only their tools, and produced pottery in the villages on commission.

Rural marketing was carried out in one of three ways. The first, and I think both the most long-standing and popular for potters, began by making a surplus of pottery throughout the year. This stockpile of the most commonly bought items such as lids, cooking pots, and water pots, was supplemented with the items more popular among villagers than town dwellers, such as bed legs and low stools. When the water in the Pondori marigots rose in the late summer and fall, the women loaded portions of this stockpile into a hired or family-owned pirogue and headed for the hinterlands. Individual women did not go alone; they were accompanied most often by a teenage daughter or sister, or more rarely by a husband or son. The potters selected villages at which to stop based on a number of criteria. These included having family or friends in a village, which made lodging arrangements easier; and having an established reputation there, which increased the chance of sales. The ethnic groups resident in the village were also crucial to the village's attractiveness for selling Jenn6-made pottery but, as in the case of the blacksmiths, the means with which to pay for the goods was still the most critical factor. Marka/Bozo/Somono villages were the least frequently visited because of the volume of pottery that would already be available there, produced by the resident Somono/numu potters. Based on my interviews of potters from Jenn6 and villages, however, it was clear that Somono potters did not rule out villages with a resident Somono population. Bambara villages in the Jenn6 area occasionally had resident Somono/numu or Fulani griot potters, among other artisans, but this was rare and these villages were normally a good place to sell Somono pottery. Fulani-dominated villages were also good targets because griot potters were so limited in their range of products based on their manufacturing technique; traveling Somono/numu provided all the architectural pottery, for example.

These traveling warehouses of pottery appeared to be well received wherever they landed. The pirogues stayed moored at a village for several days at a time if the village was buying. Once a village was saturated, the pirogue was moved to the next desirable spot, and this continued until all the stock was sold. A pirogue held anywhere from about 100 to 200 pieces of pottery. Depending on the amount of
pottery she piled up in Jenn6 and how much grain she had to net during this season, the potter, with her assistants, would return home, stock up, and go out again until supplies ran out or enough grain had been earned. Three trips was the average number quoted to me by potters. In three trips most women claimed that they could collect enough grain to last the year, or at least to make up the portion they had promised their household. Few women were in a position to have to support their family's entire food needs, but women's grain contributions could be converted to other foods and goods if they had a surplus of the grain.

The second method of circulating Jenn6 pottery in the hinterland was based on the movement of the potters themselves, without a stock of ready-made goods, through villages where there was a market for Somono/numu pottery. The potter, accompanied by some of her children or her husband and equipped with only her tools, would go to a village or a series of villages, staying a week or more in each, and produce pottery on demand. During her stay she would be provided with room and board by a friend or relative, or by someone who habitually gave this kind of hospitality in the name of the village. In most cases the host villages were places where the potter had an established reputation. All potters boasted, however, that potters from Jenn6, because their products were considered higher status than those of the villages, were always welcome and they could always make a good profit in the villages. Village-made pottery, however, could be of extremely high quality, as discussed below, and this claim may not have been true in all cases. Potters would return home when their rice, millet, and sorghum needs had been met, often after spending four to six weeks away.

The third seasonal traveling pattern involved husbands and wives. In these cases the blacksmith/potter couple went with their respective tool kits and found lodging with someone in a village, often an acquaintance but not necessarily so. They rarely took children along; mothers of young children were not usually involved in this. The benefits of this arrangement included being able to set up temporary housekeeping; a wife would cook for herself and her husband, making room and board less burdensome on a host. A woman might offer to share in a family's housework in exchange for lodging. The husband usually determined the place and length of stay; his ironworking market was more site specific, and the woman would move on to another village or return to Jenn6 based mainly on his success.

Pottery Mass Production in Soa
One of the villages I visited, Soa, a Marka-Bozo-Somono settlement of about 2,300 people, 20kn east of Jenn6, was the home of a very active Somono/numu pottery-making industry, disproportionate in intensity and size to other activities carried out in the village. In sharp contrast to Jenn6 in 1983, where fewer than 20 potters provided most of the ceramic goods for the 10,000-plus people of Jenn6, as well as for the weekly market, the active number of potters in Soa were at least that many, for a settlement only a quarter as populous. These potters produced pottery year round, which they and their families transported by boat to scores of villages accessible to Soa by water. Their best markets were the Bambara villages where typically no potters were present, Fulani/RimaiBe villages where griot
potting techniques limited the range of goods that could be made, or smaller Marka-Bozo villages with no Somono in residence.

Soa had three major numu families, bearing surnames common to Somono (whether numu or not) and Bozo (many Somono surnames are also common among Bozo). Each of the three lineages operated its own forge comprising several workplaces, and many smiths traveled with their anvils, tool assembly, and scrap iron to other villages to work during the lucrative agricultural season. In size this group was not disproportionate to the needs of Soa itself. The potters, however, constituted a much larger group. Virtually every woman who had been raised as a potter reportedly was still engaged in it, and more significantly, many women who had married into such numu families, who customarily could choose to learn the skill or not, had chosen to apprentice and become potters, in contrast to Jenn6. In the villages ceramic objects remained valued goods, so the market there had not decreased in the way it had in Jenn6, which discouraged women from continuing to pot and certainly from learning it as adults. Village women also had fewer economic options than the urban women, and could not afford to be as particular about business choices. The numu family compounds in Soa each contained five to seven workplaces for pottery production. The large number of people who occupied village compounds made it possible, with this added household help, for a woman to spend more of her time in activities apart from normal chores. Typically every potter spent time everyday, sometimes much of the day, engaged in some aspect of pottery production. Their workplaces were in courtyard comers, or inside the living rooms or private rooms of the potters' houses. The areas consisted of an oiled spot on the floor, exactly the same as in Jenn6, the pottery dessen, a vessel for soaking clay usually full of clay, and additional small containers holding wet tools and steeping pigment. The ceramics produced for export were basic and somewhat standardized, including several sizes of wide-mouthed cooking pots, larger water pots, rain gutters, tubular bed legs, and cooking pot stands. When a Somono/numu potter in Jenn6 recommended that I go to Soa because “they know how to make everything there,” I expected to see a larger selection of ceramic objects than I was seeing in Jenn6, and possibly greater virtuosity. But the astounding aspect of production in Soa was not how well the pots were made (although the best potter I ever observed was a Soan potter), or the range in styles, but how fast they could be made, and how similar pots were to each other. I timed a range of potters, and found that the average time for making a small cooking pot, for example, when the clay was already prepared, was seven minutes; this was less than a third of the time it would take a Jenn6 potter to make the same pot on the average. The motivation of the Soa potters seemed greater than that in Jenn6; they knew they could sell everything they made, because they were able to reach numerous villages by water and were willing to make the effort to travel long distances. Although most aspects of the chaine opdratoire were identical to those of the Jenn6 Somono/numu, there was a noticeable difference in the attitude toward decoration. Painting was especially swift and basic, consisting of broad strokes of red pigment applied with a wad of cloth on a slipped pinkish surface. Some
individual style was reflected in these mass-produced wares, but as might be predicted, not as much as in the goods the same potters produce when commissioned by a customer, or those in which a potter specialized. One older potter, who was a native of Dia, an ancient town with important historic ties to Jenn6 located on the Niger northwest of Jenn6, produced finer and more expensive pottery than the other women (Figs. 7.10, 7.11). She had an adequate market for her pots within Soa and from special orders, and did not move from Soa to sell her pots. It was an individual decision to devote oneself to pottery production, and to the annual marketing by boat, not a village-wide decision, despite the wide participation in this activity. Profits were made there on an individual basis, as in Jenne.

The firing sites in Soa were massive, located around the edges of the village. Approaching the village by boat, I could see from several kilometers away what looked like high pink walls around the town; these turned out to be the mounds of fired pots, not moved from their firing locations until it was time to load thepirogues, or in some cases the donkey-carts, for their dispersal (Fig. 7.12). Most women fired large groups of pots at a time, hundreds of pots, while in Jenn6 the number of pots a woman made in a week might be 30 or 40 at the most.

The time to export on a large scale began when the Niger and Bani Rivers rose and flooded the network of marigots in the Pondori, which occurred in October/November; traveling peaked during the harvests in winter season. It was at this time that farmers determine how much of their yield they could afford to trade for non-food items, whether marriages and gift-giving would take place that spring, and so on. Women and their daughters, and often husbands, the latter taking time away from blacksmithing to make the distribution more efficient, fanned out in loaded boats to the villages of their choice, staying for two to three days in each and continuing until the boat, which may have held several hundred pieces, was empty. They made as many trips as they had supplies for, and returned home to resume production if the market was especially large. The potters claimed that there was no formal territoriality in the routes they chose, that they chose their destinations based on personal connections, their successes in past years, or their knowledge of the location of good harvests. If they stopped at a village that has been supplied by another potter, they stayed only a few hours to see that there was no possibility of a sale, and then moved on. Soa's fortunate location on a network of streams in one of the lower-lying parts of the Pondori enabled the Soans to exploit the marigots for boat travel more than the people in most other villages could in the drought-troubled years; many villages became isolated because the expected flooding did not reach them. The transportation problem was one of the reasons cited in Jenn6 for the slowing down of mass exporting, which Jenn6 potters claimed was similar to that I saw in Soa at times in the past (LaViolette and Frank 1997).

Soa illustrated a means by which a village with no craft producers in residence, such as many of their target villages were, could be provided with a full assemblage of pottery (and iron products, among other classes of goods).
by the regular visits of artisans, often with the goods of a single artisan produced over the course of many months. Pottery was a highly visible example of this. Soa and many other Marka-Bozo-Somono villages exerted heavy influence over the material culture of neighboring villages in this way, presumably more than if villagers were selecting from a variety of goods produced by numerous artisans at a local market. If this kind of mechanism were active in the past, it could produce a relatively homogeneous ceramic record, the kind one might interpret as indicative of a culturally homogeneous population. A method of mass production, coupled with aggressive distribution practices, could be consistent with mosaic subsistence strategies and cultural diversity in this region, and with site clustering by craft or other specialization. But without the attention paid to site clustering and the possibility of cultural diversity, the homogenous appearance of such pottery might be erroneously linked with a single ethnic group's domination of the area (see Sterner 1989:459).

Chapter 8: The Masons
Earthen buildings in the West African Sudan have been celebrated in recent decades for their architectural innovation and form, as part of a wider interest in vernacular architecture in many parts of the world (e.g., Iowa 1985, Bourgeois et al. 1989, Leslie 1991, Wemer 1992). Jenné is renowned for its Sudanese architecture, built in several kinds of mudbrick and finished with a clay plaster exterior coat which lends itself to mass, on the one hand, and grace on the other. British and French visitors and later colonial agents noted Sudanese religious and urban architecture with appreciation (Park 1799, Caillié 1968 [1830]), and the architecture of Jenné and Timbuktu was documented during French colonial administration (Monteil 1903, 1932; Dubois 1897; see B. Gardi et al. 1995). Scholarly attention to Jenné's architecture began with Prussin (1970, 1973, 1986, 1994), who focused her early work on Jenné, and its study perhaps reached fruition with Maas and Mommersteeg's volume (1992; also Hackenitz 1982; van Rangelrooy 1984; Maas 1986; van Gijn 1986, 1994; Snelder 1984; Bourgeois 1987; LaViolette 1990, 1994a; Maas and Mommersteeg 1994). Related studies concerning West African architecture include Engstrom's older accounts of Sudanese construction (1955, 1957, 1959); Brasseur's review of housing throughout Mali (1968); R. Gardi's (1974) and Denyer's (1978) reviews of African architecture; Devisse's inclusion of architecture in his account of urban living in the Sahel (1983); Bourdier and Minh-ha's study of architectural forms among the Gurunsi peoples of what is now Burkina Faso (1985); and art historian Blier's (1987) particularly sophisticated treatment of architecture in Togo and Benin. Jenné's buildings and Sudanese architecture more widely was of secondary concern in the present research, which focused on the masons themselves, known as the Jenné bari (Songhai), and their organization of production in the context of the other artisan groups in this region, among whom they are unique; the possible origins of the bari; their role as transmitters of culture; and some fundamental principles of the building process significant for an archaeological understanding of this region's architecture.

Building and Masons in the Archaeological and Historical Records
Excavations at Jenn6-jeno have provided a solid arc of architectural changes which nonetheless cannot be attributed directly to the work of any particular group of specialists. However, moving backward in time, we have a deeper oral record concerning the masons than we have for any other specialist group. The archaeological sequence of buildings began with seasonal pole-and-mat encampments, that after some centuries changed to permanent, round, honeycombed structures of coursed mud or tauf, called banco. The banco changed again to small, cylindrical sun-dried bricks used in the rounded buildings; and finally at Jenn6-jeno the building shape changed to rectangular but the structures remained built with cylindrical bricks, referred to asjennefrey by the bari (S. McIntosh and R. McIntosh 1980, 1).

These stayed in use until the early 20th century, when they began to be replaced by larger rectangular sun-dried mud bricks made in wooden molds (see Maas and Mommersteeg 1994:91), called tubabufrey due to their European (tubabu) influence. These architectural developments provide insight into broader changes in the region--from the early Iron Age seasonal habitation of mixed farmers, fishers and herders through the evolution of a densely populated urban system. In Jenn6, the change from round to rectangular bricks symbolizes the effects of the French colonial presence, and the embracing of what is considered 'modern' architecture. We are also quite probably seeing, in the evolution of building style and the growing demands of first an urban, and then a Muslim, elite, the emergence of specialists in earthen masonry, but exactly when that is remains unclear (LaViolette 1994:88-89). The round jennefrey, visible in many buildings but virtually never made new today, remain an important historical symbol to living masons (see Maas and Mommersteeg 1994:90), and it is possible that their appearance at Jenn6-jeno marks approximately the time of an organized building specialization. The vast city wall that encircled Jenn6-jeno was made of these bricks, and dates to the transition from Phase III to IV, ca. A.D. 900 (S. McIntosh 1995:64).

The Ta'rikh el-Fettach, a seminal work in West African history, was completed in 1665 by a Muslim scholar from Timbuktu, Mohammed Kati (1964 [1913]). The reference concerns what is alternately translated into French as a 'caste' or 'tribe' of builders, the sorobanna, who were involved in the expansion of the Songhai Empire during the reign of Askia Mohammed, who ruled from 1492 to 1529. The passages in question, however, have been shown to have been added to the original document during a period of political upheaval in the early 19th century under Fulani reformer Sheku Ahmadu (Houdas and Delafosse in Kati 1964 [1913]; Levzion 1971). The implications of this addendum, written almost 200 years later, are noteworthy. It is meant to appear contemporary with the original ta'rikh, and alludes to large groups of state-controlled builders (and other artisans) that supposedly existed under Songhai ruler Askia Mohammed in the 15th century. This reference to the political arrangements of a previous state, from which the later Fulani state wished to draw political analogies about its own jurisdiction over masons and other specialists, suggests that state-sponsored building campaigns using state-controlled specialists were desirable (Levtzion 1971), if not achieved (Tamari 1991:235). This casts masons in
a marked role by the early 19th century at the latest. Based on historical and
linguistic research, Tamari (ibid.) posits deep foundations to the groups we now
see in the Middle Niger and beyond: that those groups within Mande society, in
which realm we can consider Jenn6 despite its non-Mande components, strictly
speaking, date to the early 14th century at the latest (ibid.,232-3), although she is
basing that on the presence of bards and musicians.
A discrepancy occurs within Houdas', and Delafosse's (Kati 1964 [1913])
annotations of the volume with regard to the translation of sorobanna. The first
relevant note (p.20, n.6) translates the word as 'builder of terraces' or 'builder of
minarets' (indicating a tie to Islam). Later, the sorobanna are listed with four other
"tribes" as "tribes of blacksmiths" (p.1 11). In a subsequent note (p. 111, n.2), the
reader is referred to the original reference on page 20 (n.6) for further explanation
of each of the five "tribes," where they are defined again as builders. Houdas and
Delafosse did not comment on this contradiction, however, possibly meaning that
it did not appear to be contradictory to them: were blacksmiths and masons once
parts of the same group? Another interesting point in the Tarikh el-Fettach,
published in its original Arabic along with the French translation, is that "caste"
and "tribe" are words the translators used for very general terms in the original
Arabic, equivalent to "group" (pers. comm. F el-Hashem, Spring 1987). It seems
probable, whatever the problems in the document, that there is some truth in the
reference to specialized builders by the time of the Songhai empire. Any further
conclusions about bari origins based on the Tarikh el-Fettach certainly should be
made with caution.
Monteil's slightly later account (1971 [1932]) discusses the masons briefly,
describing an organization similar to the one currently in operation. He does not
talk about them as a 'caste,' saying they are 'freemen' recruited from the hinterland
(ibid.:252-253). At the time of his account the bari were still makingjennefrey
rather than tubabufrey, and as is recently, were the preferred preparers of graves.
Monteil was clearly astonished by the quality and grace of the construction, given
the few tools he saw in use--an iron rod resembling a crowbar, a plumb, and some
string (ibid.:253).
A Consideration of Modern Masons' Ethnicity
The great majority of local masons were Bozo or Songhai, at a ratio of about
two to one. These groups were seemingly unlikely partners. In Jenn6 the Bozo
fishers and farmers were accepted as the autochthones, who had the mixed legacy
of first inhabitants, on the one hand, with their primacy in control of the
waterways, and being the conquered on the other. Nor did the Bozo have
symbolic power within the masons, although this does not speak to their wealth or
individual status, which equalled that of the Songhai, or to their greater number.
The Songhai, the most urban of the ethnic groups, engaged typically in
farming and commerce and had no other specialization apart from masonry.
Different Songhai masons claimed that this partnership was rooted in major
building campaigns, when the Songhai, the elite masons, drafted the help of
lower-status Bozo men as laborers (LaViolette 1994a). I could not get this
tradition confirmed by Bozo masons. Although this may shed light on the roots of
what we see today, the nature of changing ethnic identities and relations would warn us against placing too much historical depth on recent constructs. Masons who did not originate in older, core families, but who were apprenticed to established masons, could become recognized professionals themselves. The community of masons was open to apprentices from many ethnic groups, “even blacksmithe,” according to one mason. The major ethnic groups usually absent from the roster of masons trained in Jenn6 were the Somono and Fulani. Weavers, many of whom were said to be descended from slaves; leatherworkers, who in this area would be Fulani griots; and blacksmiths were mentioned by one mason as particular groups that would never send a son to be apprenticed to a mason. The discrepancy over the blacksmith issue raises an interesting point about membership. Using smiths as an example is a reflection on their special status more than it is on the masons’ relationship to them, for in Jenn6 no smith had ever trained as a mason to anyone’s knowledge. Most masons asked about membership usually indicated that as far as they were concerned, it was open to all, yet the traditional role of apprentice, which included moving in with the master and becoming virtually like a son, may well have been a sticking point between groups considered as ‘free’ as farmers, such as the masons, and those from within the nyamakalaw. Most of the boys sent to work with masons were the sons of farmers. Although the Bozo fishermen were an obvious exception and eligible for membership, the Somono fishermen were not present among the masons at all. There are several possible reasons for this. That several Bozo masons mentioned the Somono by name as a group never found in the bari led to the conclusion that they may have been purposefully excluded at some point in the past. It also may be related to the presence of the blacksmith lineages among the Somono, which somehow worked against the presence of masons within the same group. It seemed odd that the Somono should appear to be excluded, when the Somono themselves were such an absorptive group and when the bari were not an especially exclusive profession. On the other hand, that Fulani were absent from the bari was not difficult to explain. No professional artisan lineages are present among the “noble” families of the Fulani, and the griot lineages do not include builders. I heard of Fulani masons in the villages outside Jenn6 (see Appendix A), so perhaps apprenticing to village masons was less problematic. In Jenn6, it was also culturally anathema for Fulani to be making mudbricks and building permanent homes, although many of them had to begin farming and living in permanent villages due to political and economic pressures.

The masons originating outside the entrenched core of bari families therefore were usually Bozo and Songhai, with smaller numbers of Dogon, RimaiBe, Bambara, horso (griots associated with the Songhai), Mossi, and Marka, most of whom came from the countryside rather than Jenn6 itself. Non-Muslims, such as the Bobo, were not discriminated against. All these masons trained in Jenn6 from boyhood; some had remained there and been assimilated into social and professional circles. As illustrated by several Dogon cases from the 1970s described to me, apprentices from outside Jenn6 often returned to their natal
communities with their earned status of Jenn6 bari, a widely respected title and an assurance of a relatively good income, certainly a good supplemental income for a farmer. Sons from Jenn6 and elsewhere who became independent of their masters might also use their qualifications as a ticket to one of the foreign locales that habitually attracted emigrants from the poorer areas of the Western Sudan, cities such as Abidjan or Ouagadougou. Roughly two-thirds of Mopti’s group of masons, which lacked an organization such as that in Jenn6, were in fact Jenn6 bari (Prussin 1973; B. Gardi 1981, 1983), some of whom had moved there permanently while some commuted from Jenn6 for weeks or months at a time when work opportunities arose.

In the hinterland of Jenn6 it was the Bozo/Marka villages that were the source of most rural masons. Although it was the Bozo again who were the dominant ethnic group numerically among the masons, the membership was open. In these villages the Marka were always politically superior despite the usual preponderance of Bozo families and their deep antiquity in the region. A small but growing number of Marka were apprenticing their sons to Bozo masons, however, putting Bozo families in an uncommon situation of patronage in domains other than fishing and water rights. Under the dire economic circumstances of the early 1980s, the search by rural farmers and fishers for opportunities to supplement the inadequate subsistence base brought this about, but it was not unwelcomed by the Bozo masons, even though it resulted in a diminished market share for each mason.

The Social Organization of the Modern Bari

As of 1983, masons were exclusively men and subject to no particular marriage restrictions related to their occupation; like most people in this society, they tended to marry within their own ethnic group. They were scattered throughout the quartiers of Jenn6, although there was a concentration in Djoboro, the neighborhood most heavily inhabited by people of the Bozo ethnic group. A mason's occupational identity and his primary social identity were not as intertwined as they were among potters, blacksmiths, and many of the other artisans. The ethnic membership of the masons was predictable in Jenn, however, and equally so in the surrounding region. Masons were predominantly Bozo, both in Jenn and the countryside. In Jenn6 proper, Songhai was the second largest ethnic group represented among them, with an estimated three Bozo masons for every one Songhai. It was a long-standing practice that the oldest living man in one particular Songhai family of masons was the formal chef of the Jenn6 bari. The tradition of having a Songhai chef in a largely Bozo organization sheds light on theories of bari origins, discussed below.

The Structure and Maintenance of the Organization.

The masons were the most numerous of the major artisans in Jenn. The number of bari who had permanent residences in Jenn6 fell between 80 and 100, including young men still in the course of apprenticeship and elderly men who no longer participated in the demanding physical labor of construction. Thirteen master masons lived in Jenn6 in 1981 and 1983, only a few of whom were still involved in building. Although the skills of masonry were acquired in a rigorous and relatively formalized apprenticeship, it was nonetheless a predominantly kin-
based craft, being passed from father to son under most circumstances. The bari were distributed in a four-tiered hierarchical structure that can be described as follows.

At the base of the organization were the apprentices, boys and young men aged from 10 or so to about 20 years old, each of whom was engaged in a personal contract with his father or another male relative, or in the case of a boy from outside a mason's family, with an unrelated mason. The masons themselves did not think of the apprentices as a subgroup of the bari unto itself, because each apprentice was the responsibility of a mason and was perceived from within the group as bonded to him. Apprentices could take small, straightforward jobs on their own, however—crdpissage (refacing, Fr.), roof repairs, and kitchen construction, for example—and made up a considerable percentage of the labor force (approx. 25%). An apprentice would give a portion of what he made for these jobs to his master, as a symbol of his gratitude and loyalty, and also as a return on the masons's investment in him.

A mason would enter the second tier more abruptly than any other, at the point when he is released from his apprenticeship (the details of which are discussed below). In many ways the transition to this second category is the most critical in a mason's ascendancy, for at this point he became independent, free to exploit his expertise to the fullest extent. This tier comprised the average, independent masons, each of whom might work in a variety of capacities: as the head of a team of masons involved in a construction project (where he would receive payment from the client and divide it as agreed upon among the other masons and the workmen); as a hired member of the team; or as the head of a group comprising wage laborers who were not masons, for example. Although seniority and experience were the overriding indicators of status among the masons in general, no formal hierarchical subdivisions were evident among this middle group. For example, a man could be the head of a construction team one season, and part of a larger team during another, when he was only one of several key figures. The willingness to be a team player, as it were, normally would end when a mason began to consider himself a master, or maitre-maqon, according to the personal criteria described below. I encountered no evidence of the "worker" or "journeyman" status among the Jenne bari, i.e., a mason past the apprenticeship stage who was not entitled to find work independently. This characteristic was true of Islamic guilds, and differentiated them from their European counterparts in the Middle Ages (Massignon 1920; Lewis 1931).

The top two tiers of the structure were occupied by maitremagos, men who considered themselves, and were considered by other masons and their clientele, to know the professional and spiritual secrets associated with masonry, and who had descended from a line of masons at least several generations long. The process of becoming a master was based on tenure as a mason, and on being a member of a core family. Because of these criteria, all of the maitre-magos in 1983 were Bozo or Songhai.
Among the masters a division could be made between the men who continued to be active builders, whom I designated as the third tier, and those who because of age or health remained on the sidelines, and comprised the fourth. Entrance into the third tier was not formalized, but depended on several variables, some personal and some demographic. The man should have reached about 50 years of age, and be the oldest active mason in the household of a central bari family before making the transition in his own mind from that of an average mason to a master. It was possible that a lineage boast more than one master, according to this definition, because a lineage could comprise several households. But, however accomplished a 50- or 60-year-old mason might be, if he had an older brother or father who was still an active mason, he would not be the highest status mason in Jenné bearing his surname, and he would thus be perceived on a slightly lower social and professional level than that of his older relatives. However, if he was of good character and reputation, he might still be thought of by his clients as a first-rate mason, worthy of the maitre designation.

The eldest, retired masons could often be seen sitting and observing their sons at work, in a kind of honorary, supervisory role. These men had usually removed themselves from the work force due to frailty or ill health. They were most conspicuous when all of them who were able gathered as a group during the annual extravaganza of refacing the Jenné mosque every spring, to oversee the work done by the younger men and bask in the mosque's rejuvenation. They took on a self-consciously superior aura, along with other elders, by wearing white robes and carrying walking sticks while the rest of the mud-soaked masons and workers scrambled over the mosque on ladders. When asking other masons about their group history, I was often referred to these men for better information: "I am not the age to know those things." It did not appear that a body of knowledge becomes available to masons at a certain point in their careers; rather, the respect of the younger generations for the older ones manifests itself in respect for their knowledge of history and lore. Yet there was also a sense among the eldest masons that the bari traditions were not taken to heart in the way former generations had. This was blamed on the influence of western values, which had led to thinking of masonry as no more nor less than a job, rather than a special vocation.

To summarize, the transition between apprentice and independent mason was marked, while the transitions from that point onward tended to be gradual and individually variable. Thus, although the bari comprised an essentially four-tiered organization, designations above the apprentice/full mason level were indefinite, and crystallized again only among the elderly masters who had removed themselves from the work force. It was in the bottom two categories of masons that ethnic group members other than Bozo and Songhai were present, leading to the conclusion that the presence of these groups was a relatively new development.

The age-related structure of the Jenné bari underlaid a more specific infrastructure, involving certain families and certain ethnic groups. As mentioned above, leadership of the bari was consistently the responsibility of the eldest member of one Songhai family. The major forum for this chef was the monthly
meeting, held on the first Monday evening. Masons exchanged personal news and grievances at these meetings, assembled work crews, mediated in conflicts between other masons, paid dues (200-500 francs each in 1983, less than a dollar) to a community chest, and made collective decisions about such things as pay scales, professional courtesies to help erect younger masons' homes, and unpaid projects for the community. Importantly, masons kept themselves informed in the meetings about who was working for whom, and thus protected the right of individual masons to the work coming to them through long-term relationships with certain families passed from master to apprentice, relationships that outsiders and other Jenn6 bari could not infringe upon casually. When the customary mason of a family could not serve the family for a particular job, he might ask someone to take his place on that occasion, but the replacement could not be extended into the future under normal circumstances. These affairs were regulated by group opinion among the bari.

Masons dismissed the idea that the chef had any real power, strictly speaking, and no mason professed a belief...
given time, many masons were engaged in construction projects away from Jenn6 and would not be available for the gatherings. Attendance at the meetings seemed to be most important for masons looking for jobs in a work team, and for socializing in general, although other important business was conducted at them. In any case, although all masons knew of the fixed meeting dates in Jenn6, the meetings were not attended by everyone consistently. Attendance was not considered essential for continued membership or participation in the community, but certainly contributed to maintaining an individual's influence among the younger half of the group.

Four masons, in addition to the oldest Traor6, were heir to positions of some authority among the Jenn6 bari, through their male kin, and acted as further disseminators of information through the membership. These men, one of whom was Songhai and three Bozo during the period of this study, assumed these positions when they became the oldest living (or in some cases, active) members of their families; these families were Gaba (Songhai), Sir6 (Bozo), and two Kosinatao families (both Bozo, and related to each other). Further, each of them (including Traor6) was considered the head of an equipe (Fr.), or team, comprising full masons and their apprentices, which could be called upon to carry out public works or emergency operations. As several senior masons explained to me, the five groups each contained a fifth of the total working group when they were formed, apparently organized by place of residence in Jenn6, and appeared to have been especially active under the French administration due to corvée labor projects. In 1983, these work teams were not in operation, and many of the younger masons were uncertain as to which of their elders were in fact holders of the customary leadership positions. The chefs d'équipe did not monitor the work of the members in their group, and had no control over them in any way. There was an 'insider' element in the equipe system, and certainly in their chef's position. All of the men in question were Jenn-bom, as were the chefs de famille of all the key masons' families.

Beyond this, no other formal organization affected the whole group. Social hierarchy among the masons was built upon the master-apprentice relationship, and more broadly, was based on age.

The Conditions of Apprenticeship. The average conditions for masons' apprenticeship were not dissimilar to those of other kin-based crafts in Jenn6. One difference was that masons were not generally working near their own homes, so contact with their children was less than that of other workshop-based artisans until the children were old enough to accompany their fathers. A boy would begin at three or four years old to play around the building site where his father was working, if in Jenn6. At seven or eight he would be helping his father, making himself useful around the building site by handing the masons bricks and carrying containers of banco from the mixing pits up to the workers. Formal apprenticeship began no earlier than about ten, especially when the relationship was non-familial. A mother and father would often disagree about a boy who was to be sent from his home to study with someone, whether it was a mason, marabout, or other mentor—mothers tended to want their sons to stay home as long as possible, and fathers were usually eager to have the son begin a life outside the home.
Although any mason who had been released from his own apprenticeship was free in principle to take an apprentice, such a man would not be approached by a parent until he had proven himself in the public arena. Jenné masons were often approached by villagers when they were away from Jenné during their annual trips in search of work. After observing a mason's work and character in their village, parents might decide that they would trust their children to him, and might work out the conditions of an apprenticeship to be begun when the child was older.

Most masons quoted about 10 years old as the age at which they began their apprenticeship. A boy of about 10, if he had spent time around family members previously observing and participating in the masons' work, would be trusted with jobs such as applying banco mortar between the bricks and helping with plumbs, strings, and levels. Until he was considered an adult and capable of a full day of work, a boy's labor was not charged to the proprietor of the construction, but his master would occasionally give him a small allowance as a reward (100-200 Malian francs in 1983, around 25 cents). The actual training proceeded as with all apprenticeships in Jenné, whether or not the child was kin or someone who had been entrusted to a mason: it comprised a long and gradual exposure of the youth to the full range of responsibilities he would face when independent. When he was still an apprentice but working a full day, his master would determine which of the masons' fixed wages he deserved.

The conditions of bari apprenticeship at the time of the study differed considerably from those that masons remembered for the last few generations. Father/son relationships had not changed as much as the extrafamilial ones. Previously, the acceptance of a boy as an apprentice gave the master complete control over that boy's life. In addition to his participation in the mason's professional life and his obedience to the rules of his adopted household, the master fed and clothed the apprentice, arranged his marriage, paid his bridewealth, and received from him in return portions of his own earnings throughout his life. Release of the boy from the first stage of the relationship took place at marriage, the time of which was determined by the master based on the apprentice's readiness to enter the profession as much as his own desire to be married. The occasion was marked by supplying the young man with a complete tool kit, including the scepter-like crowbar with a flared working end, called the baton (Fr.), which the masons considered their signature tool.

In more recent years the younger masons in particular viewed their non-familial apprentices more as employees than sons. Less of the money an apprentice made after his independence went to his patron than formerly would have been the case. The shift in this relationship was not especially welcomed by the older masters, who derived prestige and wealth from their former apprentices. Many blamed western influence for the changes in attitude, saying that youths from outside the family preferred to work for men in a boss/employee relationship rather than as father/son. Nevertheless, masons continued to take boys, usually one at a time, into a relationship that usually involved respect and familial affection as well as instruction. Apprentices still referred to their masters as "Baba" (Father) or
"Patron" and expected to continue doing so for the rest of their lives. The apprentice who left the tutelage of his master on good terms could expect to obtain clients through his master's referrals, and expect to gain a portion of his master's clients (as would the master's other apprentices and sons) when the master retired.

Recent apprenticeship did not necessarily terminate at marriage, but often before it. The younger masters tended to release their apprentices when the latter had achieved the requisite skills to enter the profession independently, although some apprentices left when they themselves felt they were well-trained, or perhaps had received their own commission, a situation lamented by the older masons.

Apprentices often ate with the master's family, but lived in town in a rented room (the practice of many adolescent boys, whether or not they have parents living in Jenni), an arrangement that instilled more freedom in the relationship than possible when the boy was part of the household. They were also marrying later, and in this matter the master had less influence over his apprentices' lives than in memory. It remained customary to present a new mason with a complete tool kit, especially if a good relationship exists between the two men. The apprentice's departure was accompanied by benedictions from the master for the young man's health and success, including gifts of gris gris or talismans, protecting against occupational hazards such as falling from high places. Occasionally the relationship ruptured, and the apprentice was released with a minimum of fanfare. It was extremely bad form for a mason to show public disrespect for the man who was his master, whatever the actual terms of the relationship were.

The sons of the group of master masons active in 1983 formed a large proportion of the working bari. It was fully expected that the sons of a mason, especially if they were from a bari family of long standing, would learn the necessary skills to become qualified masons, whether or not a particular son has aspirations for other things. Sons of men who themselves were the first in their families to become mason were not under the same kind of pressure to remain in this profession. Many sons of the more successful masons, because of the financial stability of the family, were well educated, and moved to the commercial and administrative centers of Mopti and Bamako to engage in commerce or work for the government. When they returned to Jenni to visit, however, they could be found helping their brothers and fathers in the family business.

The Reckoning of Wages. In 1983 all Jenni-based masons, including well-trained apprentices, received at least 1500 Malian francs per day (the equivalent of 15 French francs or between $2-3, two to three times what an average wage laborer would receive). In principle, the wages for a young mason and a more experienced one were the same, although in practice informal arrangements would be made that increased a master's or work-team leader's daily pay to between 2000 and 2500 francs. The hired laborers received 800 francs per day, or 600 francs and their noon meal, a sum that was not fixed by the masons alone, but was comparable to wage labor of other kinds. A normal work day was 8:00 a.m. to 3:00 p.m., on Fridays, work began at 8:30 or 9:00 a.m., broke at noon for prayer, and resumed from 3:00 to 5:30 or 6:00 p.m. The masons
were the only artisans in Jenn6 to demand payment by the day for each of the people participating in a project. Although the idea of fixed wages was not foreign to laborers in Jenn6, it was uncommon to see this among anyone selling something other than labor itself. Usually it was the finished or anticipated product whose price was discussed: no separate value was placed on the skilled labor involved. The example noted earlier concerning blacksmith repairs, where the smith was forced (indirectly) to undercharge a client for his work, illustrates the attitude of many producers who also provided services.

That masons did not generally operate this way, although some of their fees were negotiable, to be sure, seemed to be due to several factors. The first was that the fixed wage could be enforced because of the meetings, and the interest masons take in their collective work. If someone (a Jenn6 bari or an outsider) was working for less than the going rate without the agreement of the group, sanctions would be taken against him. Masons tried to remove competition from their profession to a certain extent, largely through the hereditary clientele system. What competition remained—for newly arrived families, for government projects—was supposed to be handled forthrightly. The fixed wage protected the masons from temptations to undercut each other, as well as from being underpaid by their clients.

Another factor affecting the masons' ability to control their market was the visibility of their work, especially their great masterpiece, the Jenn. mosque. Their monopoly on building skills was, arguably, no stronger and perhaps even less strong than the monopoly blacksmiths had over theirs. However, the relationship between the masons and their special, high profile creations, were ever in the minds of their Muslim clients. The masons' numbers were strong, they stood together in the form of their organization, and their work was virtually beyond reproach. When people could afford to pay for them, Jenn6 bari and masons trained in their school were valued highly.

The Masons' Cooperative. The cooperative was a subgroup of the Jenn6 bari within the four-tiered hierarchy described above. It was assembled after independence as part of a socialization of government and civil organizations under the first president of the Republic, Modibo Keita. B6 Sau, one of the most gifted and visible of the Jenn6 masons from the early 1960s and into the time of this study, was appointed as the head of the cooperative and concurrently as the liaison with the government in cases of government construction. It was not clear to me whether the entire group of masons was subsumed in the cooperative at the time of its formation. Although the government may have intended this to be the case, the existing hierarchy of the bari would not have adapted well to the appointment of a young mason as their spokesperson vis-a-vis the administration. It seems more likely that the cooperative included most or all of the masons officially, but actually operated as a subgroup of them. In any case, the decline of the socialist spirit in Mali and the downfall of the Keita regime brought the end of the original cooperative. In 1983 the cooperative was a self-selected group of 11 paying members and their apprentices, headed by B6 Sau, which contracted with the government (but did not monopolize all government projects) and whose
members were known for skill with cement masonry in addition to mudbrick. Because of their exposure to projects requiring skills with modern materials, they were considered innovative and progressive.

The Organizational Structure in the Context of Other Groups in Jenni. The modern Jennd bari have been classified as a variety of organizational types, including a guild (Miner 1953:52), its French counterpart corps de métier (Cissoko 1975:131, Harts-Broekhuis et al. 1980:16); a craft union outside the caste system (Winters 1973:202); and a caste (S. McIntosh and R. McIntosh 1980, 11:409). Gallais described the masons as a corporation (Fr.), and "not a closed caste or endogamous group" (1967:472, my translation). All these labels are legitimate in some way. Although part of the struggle to characterize the nature of the masons' organization stems from a lack of close attention paid to the masons themselves, it is also due to the existence in and around Jenn6 of many other artisan groups, whose social organization of production appears to overlap that of the masons in some way, but to differ from it in others. Conversely, it seems to have been assumed by some that the highly visible masons' structure was representative of the other craft groups, which resulted in frequent references to the "craft guilds of Jenn." This would appear to be an inappropriate label for the groups of artisans generally. Each group, despite some shared values—even the intermarried blacksmiths and potters—operates distinctively. Likewise, none of the artisans sees him- or herself as a member of a single stratum of "artisans" in the society.

Seeking to find the correct labels for the craft groups is not just an exercise in semantics. "Caste," in African contexts, has been defined as a hereditary, endogamous group whose members are socially differentiated by prescribed behavior (Vaughan 1970:62). The issue of endogamy is critical here. Endogamy, often a sign of hostility and conflict between groups (A. Cohen 1969:203), is valued in this region vis-a-vis ethnic boundaries. Having said that, cases abounded of people crossing ethnic lines through marriage, as would be expected. Members of certain pairs of ethnic groups virtually never intermarried. Endogamy pertained more strictly to griots than to any other ethnic group or other distinct social group, and was not seen among masons, which would make caste an inappropriate label. I have eschewed it throughout this study, but it is least appropriate in this case.

Corporate groups or corporations, on the other hand, were present in many elements of Jenn6 society, not just among the craft producers. Having a continuing membership beyond that of any particular individuals, and involving special access to knowledge, at the very least, "corporation" could describe many of the Jenn6 artisan groups. Some of the craft groups were so non-integrated (e.g., cotton weavers, embroiderers) that to view them as collective, cooperative entities would be misleading.

I would define "guild" as a professional group with the additional characteristic of having a specific sense of social and professional welfare for all members, who are governed, however informally, by a set of rules and ethics. Guilds have arisen
in numerous sociocultural settings and have taken on diverse roles and appearances. For comparative purposes, however, two classic types are the Islamic guilds (in Arabic, asnaf, sing.; sinf, plur.) that appeared in the 13th century, and the medieval guilds of Europe (Brentano 1870; Massignon 1920; Lewis 1931; Thrupp 1968:187). The Islamic guilds in particular, although they were concerned with professional ethics and standardization of quality, were characterized most by a sense of brotherhood and social welfare. The Islamic guilds, well entrenched in North Africa by the time of the Moroccan conquest of the Songhai Empire in the late 16th century, could have influenced the form the Jenn6 bari took (LaViolette 1990). Whether this was the case, or whether the bari developed their own guild structure in response to purely local pressures, the guild nomenclature appears to be applicable.

This raises the issue of why only the masons have such an organizational structure, or at least why such a structure was unique in Jenn6 in the 1980s. Guilds provide a way to protect and manage the professional, and to a degree personal, lives of their members, often when those members perceive that they are vulnerable to exploitation. It is not clear under what circumstances the masons of Jenn6 would have organized themselves, or been organized, into a group more structured than the other artisan groups in the area, and the masons themselves do not have a historical explanation for the founding of their group. They may post-date a deeper Mande social structure which placed artisans, with the heavily symbolically endowed blacksmiths, at the core.

A strong sense of inherited tradition accompanied the dominance of a dozen or so Jenn6 families at the core of the bari. Although recollection of the details is often uneven, the oldest masons and to a lesser extent their descendants claim a group heritage, sustained in oral traditions, about the achievements of certain famous masons, especially the work those masons did on the mosques of Jenn6 and on significant innovations in architecture. In the group tradition, the first mason in Jenn6 was a man named Youmbouy, who came from Mande "when Jenn6 was first settled" and built subterranean houses as protection against the brigands who were attacking Jenn6. The second to arrive was Kengakai Kabatigi, a Bozo, who was one of the masons involved in entombing the Bozo maiden Tapama by the wall of Jenn6 at its construction early in Jenni's history, as a sacrifice against flooding (R. McIntosh 1998:104, 158). The third significant personality in the masons' lore was Dandibarikoi, a Songhai, who was said to have come from the east in the 9th century A.H., according to Islamic reckoning, or 15th century A.D. Personal family traditions also contained references to early masons. The most specific of these was one mason's claim that his family (Nacir6) was the first family of masons to arrive in Jenn6, that they were responsible for making the village into a town, built the wall around the settlement, and that they came from "Mande," or the Empire of Mali. The oral traditions did not refer specifically, however, to the actual origins of the professional group (Prussin 1973:172). Prussin (ibid.) asserts that although the original appearance of the bari is difficult to date, it was probably contemporaneous with Jenn6's rise as an urban entrep6t, a time that can be placed at approximately A.D. 600-800. Although we have no historical documentation for that period, it seems more likely that the bari--more
different from the other artisan groups in the contemporary period than any of them are from each other—are a relatively recent organization, perhaps dating to the period following the Songhai empire, although they are quite possibly rooted in a specialist group that emerged earlier than that. As we know, specialists pursuing their work at least part-time have been present in the area since its original settlement. It is also possible that until the advent of certain challenging architecture—e.g., two-storied buildings or large-scale public structures—families were responsible for their own building, as they are in many modern societies. Despite masons’ claims to the contrary, many people in Jenn, were taking responsibility for their own building needs, especially in Bambara and RimaiBe villages (Prussin 1973), and in the lean drought-ridden years. Rectangular, multi-roomed, single-storied houses were within the skills of non-specialist villagers during the time of my study, and probably deep into the past. Specialist lineages may have arisen in response to extraordinary needs—projects too time-consuming or demanding for the person with average know-how—and would have taken their place beside groups such as the iron workers, who possessed skills quite outside that of an ordinary person’s experience.

Some Fundamentals of Building

Although the details of the building process are outside the scope of this work and are covered by scholars of Sudanese architecture, there is certain basic information mostly absent from other accounts that may be of interest to archaeologists. The complete toolkit of the masons, in Jenn6 and the region at large, consisted of about a dozen basic objects, most of which were locally developed and made (Fig. 8.1). They were: a round iron bar approximately a meter long, and 2-2.5cm in cross-section, with one flared and sharpened end; a trowel; an ax; a rush basket; a piece of wood about 20cm square with a handle affixed to one side; another piece of wood similar to a two-by-four; copious amounts of string and rope; a line level; a plumb bob; a sponge; and a measuring tool such as a tape measure or a folding rule. The latter four tools are obviously of western origin, and were often absent from the toolkit of village masons. The core of the kit was the three all-purpose tools: the iron bar or baton, the trowel, and the stick of wood, the first two of which were made locally by blacksmiths (occasionally the trowel would be imported). The bar was used as a standard measure, either denoting the size of an average window, or doubled, tripled, and so on; the flared end was used as a chisel to score and break bricks, to push things into place, and to dig in the ground. The wood was used to align bricks as well, and to measure out door and window openings. Masons used the trowels to scoop and spread mud between bricks and on surfaces, and to smooth wall surfaces. Additionally, string and rope were used in place of surveying instruments, no matter how large the building was to be. A trowel-like tool whose exact appearance was forgotten had been made locally before industrial trowels were available; the blacksmiths’ trowels indeed were copies of western ones. The wood square and the sponge were to apply the wall plaster with finesse, but a trowel could substitute for them.
The raw materials for construction were also few: mudbricks; several consistencies of mud plaster; wood for roof-support beams; architectural pottery including rain gutters, ceiling vent caps, and pot-like molds used to help form decorative fagades; a small amount of cement to stabilize internal and external wall plaster, and for floors (often eliminated in village constructions because of expense); and window and door elements (wooden or metal).

The bricks were made by children and adolescents on the banks of the marigot encircling Jenn6 when its water level was receding. Water would be captured at the edge of the marigot in small pools only a few meters in diameter each; grass would be added, and the pool allowed to sit for several days. The brickmakers then scooped out the glutinous clayey mixture from the floor of the pools and pressed it into small wooden frames (approx. 40x20x10 cm), removed after letting the mixture set for a few minutes. The bricks were allowed to dry in the sun until they were sold to the proprietor of the construction. All the architectural pottery was made by the Somono/numu potters. The window shutters and doors, whether metal or wood, were made and/or imported by the Arma carpenters in Jenn6.

The mold bricks, called tubabufrey (bricks of the European) have been made in Jenn6 since the 1940s. Prior to this time, and for at least a millennium, all construction was done with small cylindrical bricks called jenngfrey, which could still be seen throughout Jenn6 and the regional villages and which dominate the later building phases at Jenn&jeno. The bari claimed this brick style as one of their trademarks, and that they made the bricks themselves, contrary to the modem procedure. The bricks were made with a man's two hands, cupped vertically around a small amount of the mud mixture. This mixture differed from the modem one, according to the masons, in having specifically rice and millet chaff blended into it instead of grass. The mixture was prepared by the shore of the marigot, and had water added to it on two subsequent mornings before it was ready to use on the third day. The masons unanimously considered the jenngrey sturdier than the other bricks, but acknowledged that it was indeed easier to make straight, even walls with the tubabufrey (Fig. 8.2).

The clayey mixtures found inside, between, and over mudbricks were known collectively as banco. The term is also used specifically to mean the mud mortar used to hold the bricks together within the walls. The banco recently consisted of clayey mud, water, and grass; whenjenngfrey were in use, the plaster reportedly contained no added grass or chaff. Because the marigot is a repository of large amounts of organic material, however, the mixture dredged from its floor already contained many inclusions.

Various mixtures held the bricks together, faced the inside and outside walls and roof, and coated the ceilings. The mixture used to face the outside walls, roof, and the inside ceiling was prepared in a similar way to that in the actual bricks. It consisted of clayey sediment mixed with cereal chaff, sheep/goat feces, and water, and was made in a small steep-sided pool, 1-2 m in diameter, dug into the street by the house under construction. Once the mixture was in the pool it was left standing for about a week before application. The organic material in the mixture would decompose, giving it a glutinous consistency desirable for application and
durability. An effort was made to keep the ceiling plaster free from large potsherds, bone bits, and other debris commonly present in the exterior wall and roof plaster, but the mixture was essentially the same as that for the outside. Because the ceilings were not exposed to the intense heat of the external surfaces, they tended not to crack as much as the building exteriors. The ceiling was faced two times with this plaster, and the third time with another plaster containing a higher concentration of sand. All wall and ceiling plastering, inside and out, was known as cr-pissage (Fr.).

The ideal interior wall plaster had a lower clay content than the previous mixtures and more sand, leaving an uncracked surface when it dried. It had a reddish sand base (the sand came from the bed of the Bani river), and was mixed with a small amount of premixed, soaked banco with a low debris content, the banco in a quantity just sufficient to hold the sand together. Brushing against an interior wall with this surface would result in a small shower of sand, however long ago the cr-pissage. One way of controlling the sand problem was to add a small amount of cement to the sandy mixture in the final application, which yielded walls of similar appearance but greater durability. Decorative washes were made for the walls by using clay with high kaolin content steeped in water, a technique yielding shades of wash from white to deep grey. The addition of crushed pebbles high in iron oxide, such as those used in pottery pigment, yielded a mustard-colored pigment used for decorating the grey and white plaster. For those who could afford it, industrially made paints are also an option, with bright blues and greens favored.

The wood used in the ceiling designs and roof beams was predominantly various species of palm, and was imported from the areas south by a merchant who bought it specifically for selling to the masons. The cost was transferred to the client, as was the case for architectural pottery and any other expenses incurred by the masons. No wood was used in construction of the walls, except in the case of mosque architecture, characterized in the Sudanese style by short wooden beams sticking out perpendicularly from the minaret and mihrab elements (Fig. 8.3). Although palm was the wood of choice for constructing roofs because of its linearity and length, the masons used other local woods when the properties of palm were not required. In Kouakourou, for example, there were several forges with unplastered pole roofs, constructed with knobby acacia branches spaced roughly 10cm apart. The space between the poles allowed the heat and smoke to leave the workshop while providing shade at the same time. Because the roof need not have been particularly strong and linearity was not a major consideration, the expense of imported palm was not justified.

The construction of a new building was a joint venture between the proprietor and the mason in charge, the latter presenting design options to the former based on the amount of money and space available. The proprietor would be on site during construction as much as possible, and was the person who approved the style of the facade, although he or she would be restricted to the capabilities of the individual mason.
If a proposed building site contained a standing building, a construction team would begin by knocking this down, reclaiming useful bricks, and either distributing the rubble to make a horizontal surface, or clearing it to one side until the project was complete. The laying of a foundation began with the excavation of a trench in the rough shape of the proposed building. In Jenn6 and in every village situated on a settlement mound, this involved digging into cultural deposits that tended to have unequal densities. Any soft, ashy deposits were excavated completely, so that the resulting foundation trench might be quite deep and irregular in some places. The same mold bricks used in the walls of the house were then placed in the trench, building the foundation up to a uniform level on top. Most walls were two to three bricks thick (when the long side of the bricks were parallel to the lines of the wall), and the normal foundation width would be the same as the wall it supported. However, when more of the ground had been excavated, additional bricks were placed in that segment of the trench and became part of the foundation. Under normal circumstances a foundation would be about five bricks deep, but may be up to 10 deep when required. It was therefore the density of the ground itself that affected the width and depth of the foundation, beyond the two-to-three-brick average, not the proposed height of the building. Any foundation that could bear the weight of one story could reportedly bear the weight of a second. The addition of a second story did not affect the roof construction of an existing building. Because normal beam and banco rooftops were made to be used for additional outdoor space, the weight of a second enclosed story was not greatly more stress than the roof was originally designed to take. The weight of the upper stories rests directly on the walls of the house, as described above. Therefore, a building that had existed for years as a single story could be turned into a taller building with a small amount of alteration.

The importance of the crdpissage to the integrity and design of the architecture cannot be overstated. It was also a large proportion of the commissions a mason received in a year; he might work on the construction of four or five new buildings, and do 30 crdpissages. The intensity of the rains during the rainy season would bring immediate damage to the mudbrick structure of a building unless there was at least a centimeter of banco on the exterior (Fig. 8.4). Nearly all of this coating would wash off the most exposed parts of the building each year, so that annual reapplications were needed. The only building assured of this treatment, however, was the mosque, and this was the case in most towns (Fig. 8.5, 8.6). Yearly cr4pissage was a considerable expense for homeowners, and those who could not afford to pay the wages of the masons had two options: to let the building go untreated or to do the work themselves. The latter was the practical choice, although the masons protected their business through sanctions against those who would attempt to do the work themselves. There was considerable allusion to the magic associated with masonry. Numerous masons claimed that average people would not dare to do their own cr−pissage, for fear of falling from a ladder or being mortally wounded by bones and other sharp objects in the mud plaster, occurrences
that the masons could rightfully bring about through ill will. They also said that they would not actually do harm to anyone now, but that the people knew that they could do it and respected them for it. In fact, men and women in Jenn6 and in villages replastered their houses all the time, with admittedly poorer results than those of a mason. The risks to a house by not maintaining the integrity of the surface were drastic enough to force people to do it themselves, and the circumstances were such that masons chose not to interfere. Still, it was possible to see inhabited houses all over Jenn6 that had not been resurfaced and were consequently melting.

Additional Responsibilities of Masons

Masons in Jenn6 had two social responsibilities apart from those related directly to construction. The first was to aid in assessing the value of buildings when a marabout had been asked by a family to divide property among children. The senior member of the masons traditionally employed by that family would be summoned by the marabout to help measure the house and put a monetary value on it. The assessment of the rest of the family's holdings was the responsibility of the marabout himself.

The second extraneous role of the masons was to bury the dead. Bari claimed this was an outgrowth of their knowledge of both earthen materials and construction, and that no one else had the requisite combination of skills. In many instances in Africa, the ground itself has a spiritual significance, and imparts a magico-religious identity to those who transform it into a different state. By assuming the gravedigger role in Jenn6, masons were reinforcing their relationship with the earth (Prussin 1973:160-162), as well as imbuing burial sites with the skills of their trade. Although this relationship was not discussed explicitly in this region, it is one of the reasons that there was a rightness to the masons' involvements with graves. "It is more than just digging a hole," as one mason said.

When a death occurred, the family of the deceased sent word to the chef de famille of the masons tied to that family. The chef would usually dispatch apprentices to dig the grave, in either the Muslim or Christian cemetery, both of which sat on separate mounds close to the north and northwest perimeters of Jenn6, respectively. The much larger Muslim cemetery, connected to Jenn6 by an earthen dike, had been constricted in size by a protective and decorative enclosure made of cement-reinforced bricks, erected as a public service by the bari in the early 1980s. This wall limited the possibility of the cemetery's expansion, although that was already limited by the erosive action of the annual flood waters around the edges of the mound. Therefore, masons recycled the existing grave sites as they deemed appropriate. The men chose a spot in the cemetery that did not appear to have been used in the recent past, often a location that appeared to contain a very old grave, as determined by the condition of the pottery rain pipe used as a grave markers. These were placed vertically by the head of the deceased. The men exhumed the bones from an old grave, and dug a smaller hole elsewhere in which they reintered the skeletal remains and then repositioned the marker.
The emptied grave was then dug to the desired depth, and to a size considerably larger in plan than the body would actually occupy. The body was placed lengthwise against one wall of the opening, and above it and down its exposed side the masons, standing in the unused part of the grave, placed a layer of bricks held together with wet clayey soil along one side and just above the body. The purpose of this construction was to protect the body, which was wrapped only in a white shroud (in the case of Muslim graves), from having loose dirt thrown directly on it, and possibly to alert future gravediggers to the presence of a burial. The senior mason and his helpers then filled in the grave, and marked it with a new rain pipe purchased from a Somono/numu potter. The pay scale for masons did not apply to this effort, so the amount was left to the discretion of the family and was given in the form of a gratuity.

Seasonal Travel for Work and Other Off-Season Activities

Although a large number of masons considered Jenn6 their home, the available work was insufficient to support all of them year round. Even in times of normal economic activity, the market for masonry waxed and waned seasonally, so that masons had devised other ways of remaining gainfully employed during the slow seasons. Almost all masons maintained subsistence activities alongside their construction work. Bozo masons farmed and fished, and Songhai and other masons farmed. Fishing was a personal right that did not get hired out to anyone; Bozo masons made the time to fish. If the men were busy enough with building projects during the agricultural season, they would hire RimaiBe to work the fields for them. Those who were relatively wealthy owned a plow and team of oxen, which they lent out to others in exchange for labor in their own fields (a standard practice of other affluent farmers, as well). Masons claimed to have always had fields of their own to plant; they never had the right to ask for food at another's harvest.

Many of them sought work elsewhere, including larger towns like Mopti where there was more activity and more money for new construction and repair, small villages that did not support their own masons, and even foreign cities, such as Abidjan (Côte d'Ivoire), Ouagadougou (Burkina Faso), and Niamey (Niger), where superior building skills were in demand and Jenn6 bari were well known. Many masons went to Mopti for work in the winter and stayed away until the rainy season in May or June, when in anticipation of the damaging rains, homeowners hired masons to make roof repairs and to resurface the outsides, and often the insides, of their homes. The rainy season itself was not a lucrative time for masons, because repairs did not yield large profits, but toward the harvest season, business increased again as people anticipated having money to spend. In the rainy season, jobs were frequent but small; new construction could not take place in the rain. Most new buildings were therefore begun immediately after the rainy season, making the busiest months the fall through early spring, when the harvests were in and the rain not threatening. When large projects were unfinished at the first rain, the masons covered the existing wall stumps with a thick coat of
bano that would protect the bricks underneath from disintegrating until work could be resumed.

The slow building seasons in Jenn6 did not propel all the masons out of town in search of work. Some took up other, part-time activities in Jenn6 itself, including tailoring, baked-brick making, and commerce. Tailoring was popular because it was one of the only lucrative part-time full-time crafts not restricted or socially marked, and was regularly taken up by Songhai "nobles." Wearing extremely well-tailored, elaborate garments in Jenn6, as in West Africa widely, was something everyone aspired to, and so there was an enormous market for tailors. Tailoring was also a job that directly benefitted the status of a family, because tailors provided their family with clothing in addition to bringing in cash to the household economy.

Some masons manufactured small, rectangular, baked bricks for paving courtyard floors and for the exterior side walls of expensive homes. The street-front appearance of Jenn6 buildings is regulated by a governmental effort to prevent modern materials from corrupting the traditional look of the town, but the use of such materials was allowed in less conspicuous parts of buildings. Using baked bricks was another answer to the resurfacing problem that arose every spring before the rains, along with adding cement to the clay mixture, but baked bricks were expensive because of the fuel involved. They were particularly sought after by the high-profile newly rich, such as the goldsmiths. Few masons used the baked bricks or cement as wall material in their own homes, choosing instead to maintain them with yearly coats of banco.

When masons chose to leave Jenn in search of work, a number of strategies were open to them. One was to go directly to Mopti, or less commonly to one of the other cities in Mali, and look for work there. According to sources in Jenn6 and in Mopti itself, nearly all the masons in Mopti were Jenn6 bari, because Mopti had no self-reproducing masons' organization of its own. Although Mopti was less than a day's public-transport ride from Jenn6 under any conditions, and only a few hours away under optimal ones, masons tended to stay several months when they went there. They arranged to stay with family or friends, and came back to Jenn6 before the rainy season, when they would be needed both for working in or overseeing work in the fields as well as for rain-related repairs. Masons also went to San and Segou, both perceived as having greater work opportunities than Jenn, and generally stayed for several months, from three to seven based on those I interviewed. Several masons mentioned staying for periods of two to three years in certain cities where they fell into advantageous personal and professional situations. These men were in a minority among the masons still living in Jenn6, because once a man had stayed away for several years it often meant that he would not be returning to Jenn6 on a permanent basis. Many of the masons who maintained homes in cities like San and Segou, therefore, were actually Jenn6 bari.

Yet other masons did not leave Jenni in search of work, but waited to be commissioned by someone first. Commissions could come from villages and towns near Jenn6--Macina, Mounga, Matombo, or Kouakourou, for example--or they could come from a foreign capital such as Ouagadougou, Abidjan, or
Niamey. Some of these towns had skilled masons of their own, trained in the Jenn6 tradition of Sudanese architecture (see Prussin 1973). The Bozo/Marka town of Kouakourou near Jenn on the Niger, for example, had a long tradition of Sudanese architecture and a resident group of masons centered in three Bozo families. However, several of its exceptional buildings, including the Bozo adolescent boys' residence, were constructed by Jenn6 masons brought in to do the work. These requests were sometimes made through family connections—relatives of people who lived in Jenn6 would ask for a referral—but could also come to the organization at large, and a work team of interested masons could be assembled.

Work in foreign locales was common, especially in the burgeoning towns along the coast that attract workers of all kinds such as Abidjan. A Jenn6 mason who went to Abidjan would probably find employment, but would have to pay a local building supervisor or mason for the privilege of working there. Pay scales in Malian and foreign towns were not linked directly to the wages masons demand of their clients in Jenn6; those fluctuated due to the circumstances in each place. The stays in foreign cities tended to be longer, and while probably lucrative, personal costs to the family left behind had to be figured into the equation. Decision-making among the masons with regard to this long-distance work is comparable to that described for the blacksmiths. Young and relatively unencumbered masons had little to lose by leaving Jenn6 for prolonged periods in search of well paid jobs, but the older masons with family obligations and a wider network of responsibility tended to stay closer to home. The older a mason was, the more authority and reputation he would have and the greater his chances of being employed close to home. If his reputation was exceptional he might be commissioned from longer distances, but in those cases the pay would be worth the sacrifice. Due to the system in Jenn6 itself—dominated by the passing down of clients through generations and the social sanctions against taking business away from other masons—the inability of a mason to find work year-round in Jenn6 was an accepted fact of life.

The dispersion of bari has another side in addition to the search for work outside Jenn6. The renowned skill of these masons is such that they are almost universally welcomed, and in leaving their mark on so many settlements in the Western Sudan, they have kept up the momentum of their influence. Unlike the relatively unskilled workers who seek employment at great distances from the drought-besieged towns of the Sahel, the Jenn6 bari, whose travels predate the present economic crisis by centuries, have a unique set of skills and traditions to offer to their clients and employers. They leave behind a piece of that tradition and the status that accompanies it, and in doing so they assure a future market for their labor.

Masons in Jenn6's Hinterland
Masons living in villages in the Pondori were independent of the Jenn6 bari structure, although they were part of the same building tradition (Fig. 8.7). As mentioned above, the masons schooled in the elaborate Sudanese architecture were predominantly Bozo, although growing numbers of Marka apprenticed to
Bozo, as well as a few Bambara and Fulani. Virtually no Marka families had a
tradition of masonry, although the potential existed for the creation of such
families. As in Jenn6, masons' families tended to observe endogamy within their
ethnic groups. A few Bozo village masons learned their specialty in Jenn6 and
many knew of ancestors who did, but the majority I interviewed learned in their
own villages through apprenticeship to kin. Young men from non-specialist
families who wished to apprentice to a mason might apprentice with a rural Bozo
mason, or might seek a master in Jenn6, depending on their means.
The independent self-image of village masons was made clear by many things,
not the least of which were independent oral traditions that concentrated on the
achievements of their own family members, and not on the construction of the
various Jenn6 mosques. Little contact occurred between the village and urban
masons. When they happened to work together, it tended to be for one of two
reasons: to collaborate on a project for reasons of reciprocity, or because the state
brought them together on a project requiring many trained masons, as in the case
of the Village Olympique. This was built in the early 1980s right outside Jenn6, to
serve the region, a sports complex whose most obvious feature was an impressive
gated wall of mudbrick surrounding numerous playing fields. Jenn6 masons were
also called in to work on architecture requiring the use of cement, such as
government-sponsored buildings, because few village masons were adequately
experienced with it. In most cases, however, village architecture was the realm of
village masons.

Each village's masons recognize a chef, generally the
oldest Bozo mason or the oldest one in a designated family, and set a pay scale of
its own (in 1983, this ranged from 1000 to 3000 Malian francs a day per mason,
depending on the town, and tended to be affected by the status of the individual
more than in Jenn6). Village groups usually were small enough not to need
formalized meetings and an organizational structure apart from one based strictly
on age structure, i.e., grandfather as master, son as adult mason, grandson as
apprentice. Several Jenn6 masons named the chef of the masons in Soa (fain.
Niamentao) as the chef of the collective masons from all the Pondori vil-
lages. This turned out to be without basis in the strict sense; the masons in Soa,
including their leader, confirmed that each village had its own chef de magons,
and that there was no role of regional leader. The Jenn6 bari were not clear on
many aspects of the masons' industry in the villages, confirming the separateness
of the Jenn6 group from the others. The story about the Soa chef suggests,
however, that certain village masons had a regional prominence, such that they
could be thought of as chefs of considerable stature, or that in the past rural
masons headed regional organizations comprising multiple villages. Famous
masons were not restricted to Jenn6, and oral traditions named masons from
places such as Dia with whom the bari of Jenn6 strongly identified (see Prussin

Significantly, much of the elaborate village architecture built in the Sudanese
style, whatever the ethnic groups present in the village, had been constructed by
village masons alone (Fig. 8.8). Small, simple mudbrick houses in Bambara and
Fulani-RimaiBe villages were often constructed by the proprietors themselves,
although Bozo masons said that increasingly, more villagers than ever before were relying on skilled Bozo masons to build for them. Masons originating in the rural areas circulated extensively among villages and had a great impact on architecture all over the region. Rural masons faced underemployment in their own villages to an even greater extent than the bari did in Jenn6, and most left annually to seek work elsewhere.

Thus, although most masons in Jenn6's hinterland were experienced in the Sudanese architectural style, and primarily the version of it for which the Jenn6 bari were famous, the combined group of masons in the region was more segregated than I expected. A study by architectural historians of hinterland architecture would likely reveal separate traditions within the Sudanese style that could be attributed to the independent masons's groups in the Pondori, especially in the large Bozo/Marka/Somono towns like Soa, Gomitogo, and Kouakourou. To what extent the rural masons' groups were responsible for mosques and other specialized architecture prior to the establishment of the Republic of Mali is not clear. It is possible that they experienced a fluorescence in the years following Mali's independence in 1960, when virtually every Muslim settlement in Mali gained at once the privilege and the economic burden of having at least one mosque of its own (many already had them). Elaborate mosques were present in larger villages before that, however, and were built by rural masons, Jenn6 masons, or sometimes a joint team. Appendix A lists villages in the Pondori, their ethnic compositions, and the villages of origin of the masons who designed and built their mosques.

It is likely that kin-based mason lineages have existed in the rural sector for many generations. The village masons had as clear a sense of their family's history in the masons' profession as had any mason in Jenn6. Also, elaborately appointed two-storied buildings were present in many villages, some of considerable antiquity. Some were known to have been built by Jenn6 bari, even in towns and villages that boasted prominent masons' groups during the time of my study, but many others were known to have been built by local masons. Ready accounts of regional building were not available, so I was not able to document trends toward or away from ruralization of the building industry. The larger Bozo/Marka settlements in the Pondori, such as Kouakourou and Soa, boasted several generations of masons in two or three lineages. It was in the smaller villages of fewer than 1,500 people that the history of the masons' groups was difficult to characterize. What was clear in 1983 was that vital rural groups of builders were well-established, skilled in a regional tradition of Sudanese design and its implementation, and administratively independent from the more famous group in Jenn6 itself.

Chapter 9: Craft, Status, and Identity

The six research questions outlined in Chapter 3 fall into three categories: first, the material and operational aspects of production and distribution; second, the social relations surrounding craft specialists; and finally, the archaeological
implications of the former two. The following conclusions are organized around these questions.

Production and Distribution
The realm of production and distribution includes the technological aspects of each specialization, the ways in which artisans choose to market their goods and services, and the related phenomenon of itinerancy.

In the case of the blacksmiths or numuw, although each man was usually responsible for his own buying, manufacturing, and selling, smiths worked best in group situations where extra hands and knowledge were immediately available, and where conversation helped sustain the smiths during their long working days. Generally, the men who worked alone, with only the help of young sons, were the most stressed financially; they were more limited in terms of their productive capacity, and had no one with whom to share the expenses for things such as tools. One of the major advantages of the apprenticeship system, for older blacksmiths, was the guarantee that help was always accessible, and sons were the primary reservoir of apprentices. If sons were not available, apprentices had to be recruited from elsewhere in order to keep a viable forge going. There was a tension, therefore, between individual production and the need for intermittent help and the moral support of company in the tedium of the work. The smiths themselves spoke openly about their preference for working in small groups. The presence of several adult blacksmiths in a workshop, whether father and sons or a group of brothers, allowed for some sharing of agricultural responsibilities as well as for operating the shop. The only shops that literally shut their doors during the agricultural season were those run by individual smiths with sons too young to be at the forge alone. Those forges belonging to a group of men were able to keep the doors open and the business flowing, even when several others were in their fields or traveling in the countryside for work.

Most of the Fulani griot and Somono/numu potters, on the other hand, worked alone, a circumstance perhaps determined most by the weight of their other responsibilities which kept them close to home. Although there might be several potters in one household--co-wives, mother and daughter--there was nothing in their production strategy that required multiple sets of knowledgeable hands; for the work of collecting fuel, or transporting pots to a firing location, women did not appear to call upon other adult potters for help. In all the observations I made, I never saw adult potters working together on the same projects. The women of a household tended to share much of the work and responsibility in any situation, and if a potter needed someone, say, to help her carry pots from the firing site to the marketplace, there would be someone found to do so. But the potters showed no need for other trained potters around them. This seemed to have repercussions for seeking an apprentice, because the potter had little to gain from having one. This individuality also affected the amount of pressure put on women to learn to pot. Even in the village of Soa, where in one household six or seven women were turning out piece after piece of pottery, they were all working alone, and would profit independently from their work. I noted one exception: some women in Soa piled their pots to be fired together, maximizing their fuel; in anticipation of this,
they would mark the bases of their pots for separation later. I never saw this in Jenn6, but one could well imagine that during times in the past when pots were in greater demand than today, pooling of resources might have taken place. Even in Soa, however, mother and daughter might fire together one week, and separately the next. Working together was not the ideal. Compared to the noisy, social, more public venues in which blacksmithing took place in most cases, the potters worked in relative quiet and isolation.

Masons, even more than blacksmiths, had to work together. Masons never arrived alone for any kind of project, however small. A mason might take only one or two apprentices with him, and for a small job, an apprentice might take along one younger brother, but the basic strategy of masonry involved the participation of multiple people. Given the number of operations necessary even for a repair, and the time-saving aspect of multiple hands, this is understandable. The group aspect of the work was certainly one impetus for the aggressive recruitment of sons and others for apprenticeship. A mason without the relatively cheap labor of apprentices would have to pay wages to laborers, which would drive up his costs considerably.

The marketing of goods and services by artisans appeared far from what one could call aggressive in Jenn6 itself. Much of the clientele was predictable because of existing relationships between families. Nevertheless, most of the blacksmiths and potters appeared in the Monday market with as many articles as they had prepared, even when they knew they had no chance of selling everything, to show the range of their stock. There was little hawking by the blacksmiths, all of whom displayed their goods side by side. The potters seated themselves in the main area of the market in two clusters, griots in one area and numu musow in the other, and were more vocal in their advertising. Most of the marketplace purchasing was by villagers, while most of the buying during the week took place from homes and shops and the old relationships between families would take over again. In the market everyone was looking for the unanticipated customer. Village potters, both numu musow and Fulani griot, who came to Jenn6 for the market seated themselves far from the Jenn6 potters and sold primarily to other villagers. Village potters tried not to leave Jenn6 with their unsold pottery; they typically would try to sell the remainder to enterprising Jenn6 potters at the end of the day, who would then resell the pots later at cost or at a small profit. This negotiation often took place between family members and was understood as a favor rather than a business arrangement.

Village blacksmiths did not come in large numbers to Jenn6; instead they frequented village markets where they were more assured of clientele. The number of smiths in Jenn6, while not large relative to the size of the town, was the largest in the area and most rural smiths did not consider it profitable to compete with them. The rural smiths came in to do their own marketing, to survey what the Jenn6 smiths were selling, to socialize, and to buy scrap iron from the single iron merchant then in Jenn6.
The masons' form of generating business was necessarily different from that of the blacksmiths and potters. In most cases they were sought out by the clients locally, whether these were Jenn6 residents or those from villages in the Pondori. There was not enough work in 1983 for all the masons who live in Jenni, and consequently many left in search of commissions in larger towns, in Mali and elsewhere in West Africa. Most of these men remained rooted in Jenn6, however, and their families stayed behind there. The men returned when there was a lull in work elsewhere, and almost always came back for the agricultural season. The patterns of itinerancy differed with each artisan group. One aspect of all patterns was that the artisans maintained households in Jenn6, although they might be away for long stretches, months and even years, as in the case of some masons. But it was not the pattern of these artisans in the Inland Niger Delta, or in the Western Sudan, to be completely itinerant; they did not carry their households with them as they moved. Indeed, to support the home base was the goal of this pattern. Most people, especially older and married men, did not like the fact that they had to leave home. Of the artisans who maintained households in Jenn6, masons were by far the ones with the largest ranges of movement and the longest absences from Jenn6. Because of the active building industries in the burgeoning urban centers of West Africa, there was almost always work for masons as skilled as those from Jenn6.

Blacksmiths and potters were in a different situation. Their motives for leaving Jenn6 were similar—to expand their market potential and particularly to fill their granaries. But their markets were not so expandable as that for the masons, however. Cities were not likely to open up opportunities for the goods of potters, or blacksmiths, because there was no shortage of either group in more developed areas. The substitution of industrial products, and the control over the market by those artisans already in place, would provide no incentive for producers such as potters and blacksmiths. In principle, what blacksmiths and potters claimed they had looked for in the past were villages where the resident number of artisans was inadequate to meet the needs of that village, or where there were none at all. Also, there were long-standing relationships between generations of artisans and particular villages, where those from Jenn6 were always welcome for social as well as economic reasons. For young smiths, who would leave a working shop behind them in Jenn6, what they would make in villages was pure profit for their families, and because they were paid in grain, they came out ahead of where they would be buying that grain with money earned in Jenn6. During the early 1980s, however, artisans from Jenn6 and from rural villages were all headed for those areas where the crops had been plentiful, all ignoring the poorer villages where they might have had recent years of success.

Villagers in the more stressed areas had the option, if they could afford it, of traveling to markets, although they could face there the complication that they might be expected to pay in cash. This issue of the shifting allegiances in the countryside, however, has interesting implications for seeing the way relationships change. The grain- and cash-poor villagers had no inexpensive way of reciprocating an artisan's services, such as by providing room and board. The
typical social relationships fostered through regular visits from artisans, whether from Jenni or elsewhere, were therefore possibly weakened. The redistributive mechanisms for grain in the hinterland would shift and concentrate in areas where harvests were good. Artisans' individual profits would be affected, because many more of them were seeking a share of fewer harvests and were competing on site for villagers' business. The specialists did not always have established relationships with people in their new target areas, and they were not nearly as welcome, at first, as they would have been in their familiar destinations. What was taking place during the early-1980s drought conditions, however, was unlikely a new routine. The ties among cities, villages, and artisans have changed in many ways even in recent times, as indicated by the number of different villages artisans could remember having visited in this capacity throughout their lives. Shifting away from some villages and frequenting others because of changing conditions can be thought of as part of the ongoing adaptations in artisans' patterns, not breaks with "traditional" relationships.

What was the range of roles artisans took in integrating urban-rural economy and society, and between villages without involving the urban center? My findings do not represent the full range of roles artisans have played in these areas. Several of the major contributions of Jenni artisans to the hinterland are clear, however. One was the export of aspects of Jenni's urban culture in the form of goods and architecture. Although Jenni's artisans did not have a monopoly on the manufacturing of their products, Jenni the city dominated its hinterland in terms of social and cultural values, and materials originating in Jenni retained a high value in the periphery. Related to this was the transmission of styles and trends coming in to Jenni from larger centers, in addition to those originating in Jenni itself. Many residents of villages only 15 or 20km from Jenni spent years without traveling to the city, and visitors from Jenni were often treated like celebrities, and observed closely and interviewed for news of the region and world. Without batteries for radios, without easy access to urban centers, without high literacy, the value of access to such information should not be underestimated.

Artisans' stays in villages created opportunities for extending social ties and expectations of reciprocity from villagers back to Jenni as well. Visiting artisans might accept apprentices from villages to take with them to Jenni, for eventual return to their villages, and might also train girls and boys in their own villages during their stays. In return, the villagers were providing Jenni with an infusion of grain not grown by anyone in Jenni itself. They were providing a market for many of the more mundane artifacts that cost relatively little time and money to make. And they were providing an extended social network for the visitors and their families at home, and moral support in the form of admiration for their craft achievements. It was not infrequent that young men returned from villages engaged to women they had met there, women whose bridewealths were relatively low, and who were delighted to be moving to Jenni, which, despite its own economic woes and limitations, was a metropolis in the eyes of villagers.
Just as important as this hierarchical vertical relationship between center and periphery, and occurring simultaneously, were the integrating effects of artisan movements among villages, especially those of different ethnic groups with their various associated specializations. During every visit I made to a village during my fieldwork, whatever the ethnic makeup or size of that village, I encountered visiting artisans from places other than Jenn6 who were lodging in someone's home and working for grain. This lateral movement of artisans between villages, a tangible example of which is the number of mosques in the cercle of Jenn6 not built by the Jenn6 bari but by masons from other villages (approximately 85%, Appendix A), puts the idea of the influence of Jenn6 on villages in perspective. Fulani griot goldsmiths are among the artisans most frequently found visiting other villages in this capacity. With a small, light toolkit, and materials available from the villagers themselves, a goldsmith can always find work in exchange for food and lodging and, in the right villages, for payment in grain.

It is apparent, as reported to me by Jenn6 artisans from several craft groups, that villagers are impressed by the quality and range of goods available from the urban craft producers, and that they prefer those goods, repairs, and other services to the ones available in the rural sector (with the exception of some pottery). But it is also true that villagers are content in most cases with the kinds of goods and services available from artisans in the hinterland, who are, in my experience, as capable in most techniques of production as are the artisans from Jenn6, with the exception of those activities requiring the most modern and expensive tools and large outlays for materials. Several potters I encountered in villages, both Fulani griot and Somono/numu, made pottery of noticeably higher quality than anything I saw produced in Jenn6 during eighteen months of living there. At least in the case of pottery production, an explanation for this might lie in the devaluation of pottery, even fancy pottery, as a high-status possession, and the favoring of plastic and enameled goods. In the villages, where people had less cash and the price of imported goods was often beyond their reach, people still valued pottery highly, and potters (not those involved in mass production) took the time to make more beautiful pottery. Whether or not it was the case that goods produced by Jenn6 artisans were of higher quality than those made in the outlying areas, they were perceived to be.

Social Relations of Craft Specialists
What are the links between specialized craft production in Jenn6, and ethnicity? The relationships I observed need have little to do with such relationships at other times in Jenn6's history and prehistory. Based on existing archaeological and historical evidence, it is not yet possible to say how craft specialists arose in relation to the food producers in the early centuries of habitation in the Inland Niger Delta. We do not yet have enough information to establish with certainty the existence of separate social groups in the archaeological record, although evidence such as the wide range in burial positions during the same time periods at Jenn6-jeno is intriguing in this regard (S. McIntosh and R. McIntosh 1981). So is the phenomenon of site clustering, present in the first millennium of habitation, where up to a dozen discrete sites, with different concentrations of surface
artifacts, fall within 200m of each other (R. McIntosh 1991, M. Clark 1998, S. McIntosh 1999). Such evidence is suggestive of early and prolonged population diversity in the region of Jenn6, but not conclusive. Nor is there enough pertinent historical information to understand fully even the last several centuries of history concerning the relationships visible in the modern period, which themselves continue to change.

My concern in this study was the modern situation and what was retrievable about the last few generations, the latter not because it has more inherent meaning for antiquity, but because it would help us to understand the recent roots of what we see presently and the ways things have changed. By interviewing artisans and observing their practices, including their self-definitions, their interactions with people around them in Jenn6, marriage patterns, language usage, and so on, I attempted to define the more recent, observable linkages between some craft specialists and the larger social and ethnic groups in which they were articulated in the Jenn6 area. Focusing on blacksmiths, potters, and masons in the context of other craft producers and the ethnic groups in Jenn6, I hoped to be able to generalize about the role of craft producers in Jenn6 society.

Among the generalizations that could be made is that the artisan groups observed in Jenn6 in 1981 and 1983 were appreciably, if not always radically, different from those segregated and "casted" groups bound in the lower strata of 19th century society, as they were described in the ethnohistorical literature. Artisans were themselves aware of these descriptions, and of their own departure from them. Some of the changes, they assumed, were the result of the influences of living now in a mostly Muslim society. In this view, the tension between those people who hold weighty spiritual power, such as numuw, and others who do not, is lessened, because of the shared bonds of Islam (cf. Gibbal 1994). Artisans were undergoing changes in the way they thought about their roles, with many preferring to think of themselves as learned professionals, rather than persons with ascribed roles that placed them lower than many of their neighbors. The French colonial bureaucracy also may have been instrumental in bringing groups such as the Somono and numuw together, and the Fulani with the Fulani griots, by encouraging the adoption of particular ethnic identifications and discouraging large-scale itinerancy. The French, and in the last four decades, the centralized Malian government have drained at least some of the power away from elders, by superseding age-related power structures with their own. There is also an increased tolerance for independent decision-making in young people that has encouraged formal, institutionalized education and a break from ascribed and traditional family occupations. Economic pressures from every direction are forcing people to diversify their existing economic bases, such as the artisans who resume farming and may also take part in commercial ventures, and farmers who learn supplemental craft activities such as masonry or weaving. The Somono/numuw--both blacksmiths and potters--are an Islamicized version of the specialized Mande blacksmith groups. Because the Somono themselves were brought together as a group of professional lineages, it is not surprising that the
blacksmiths among them were not as distinct a group as they appear to be among
the Bambara, for example, but are rather a highly permeable social group. We do
not know the mechanism by which
blacksmiths were incorporated into the Somono, who are otherwise fishers and
farmers, and the blacksmiths themselves had no explanation. The traits the
Somono/numuw shared with those numuw of the Bambara generally were a sense
of heightened connection to the spiritual world: their quenching water was
treasured, their input into gris gris was desirable, the marabouts among them were
considered very powerful, they were protected against being burned, they were
called upon to make judgments. The social separateness usually associated with
numuw was still visible in their preferential marriage to members of other
blacksmith families—in a society where endogamy is a highly valued practice in
many cases—and perhaps in the strong patrilineality of numuw status. The
frequency of intermarriage between numuw and unmarked Somono, however,
attests to a liberalization of the strictest kind of endogamy, with people I knew
often saying that marrying another Muslim was the factor that superseded all
others when choosing marriage partners. The senior numuw, many of whom
believed deeply that it was not only their birthright but their responsibility to have
learned the skills of the forge, found themselves no longer in a position to
pressure all of their sons to follow in their footsteps.
The haunting of one blacksmith family by mental illness, attributed to their
audacious enterprise two generations before with farm machinery, sug-
ested a vestigial resentment among certain denizens of Jenn6, one based on a barely
articulated sense that numuw should not have been entitled to substantial income
earned outside the bounds of their craft specialization. Yet in the youngest
generation of adult smiths, there were men who had completely left blacksmithing
for commercial enterprise. While the more conventional Mande blacksmith values
were still being transmitted, many factors—western concepts of individual choice,
economic pressures, opportunities in urban centers far from Jenn6,
tergenerational tensions—were having a direct effect on the blacksmiths there,
and no doubt, in many other places.
The Somono/numu potters, who did not seem to undergo the kind of public
scrutiny as did their male kin, were more able to take up and put down pottery
production as they desired, based on their economic needs. Because of their
tendency to work alone, neither a larger group’s efficiency nor its solvency were
affected by a woman’s decision to abandon pottery production. Although they
identified themselves as numuw musow (blacksmith women), their spiritual lives,
and any over they were seen to have by their contact with numuw, seemed not at
issue, much as their Muslim piety was not public. Women of the classic Mande
numu groups have considerable spiritual powers and ritual status, and it may be
that adherence to Islam, among other factors, has changed numu musow status
relative to that of their male kin in a much wider realm than just what I was seeing
in Jenn6. Numerous issues affect the status of women in this society, an issue
outside the realm of this study. As potters, however, the
ascribed status of those who are Somono/numuw appears to echo that of their husbands and families, and is not to be assessed separately or uniquely in terms of their role as artisans. The individual achieved status of a woman would, in the same way, contribute to that of her husband.

The Fulani griot potters are in a similar situation: their ascribed social status is determined in most cases by that of their husbands, but their personal, achieved status can elevate the family's individual status. The Fulani griot artisans in Jenn& in 1983—a goldsmith, several leatherworkers, and three potters—were endogamous within the Fulani griot group and had low ascribed social status. They rarely, in Jenn6, married the griots of other ethnic groups, although Fulani griots in other places did this. Griot wool weavers and wood carvers, who were not then a presence in Jenn6 but were so in the region, fit into the same pattern. Griots appeared to attain personal recognition and wealth through superior griotage more often than through craft specialization, except in cases such as the trading in gold mentioned previously, where windfall profits upset the normal pay scales. This situation was certainly true for the potters, whose profits from making pottery were very small, but who, as griots with the patronage of wealthy families, could achieve great personal gain, in principle. Whether or not they chose to be practicing artisans or performers of the other griot functions, griots always bore low ascribed status.

The Jenn6 masons alone among these three groups of craft specialists had a social identity as professionals, rather than as specialists due to a birthright, despite the largely kin-based structure of their profession. If masons or builders in general ever constituted a strongly endogamous group along the Mande numuw model, there was no collective social memory of this. The high level of organization in the builder's profession in Jenn6 was certainly exceptional there. It is possible that the organizational aspects of the masons did not emerge out of an indigenous group of specialists, but were an elaboration upon an indigenous group of artisans, possibly due to the result of Islamic influence, under circumstances that made a centralized building organization desirable. As well-paid professionals in Jenn6 society, many masons in the 1980s possessed a social status more like that of a high-profile merchant—a well-respected position in Jenn6—than that of the workshop-based artisans.

Regarding the status of other artisans in Jenn6, the Bozo boat builders, or piroguiers, while practicing a family-based craft, were not an endogamous group, nor did they relate to the masons—the only other artisans among the Bozo in this region—in any way. They fished as a subsistence activity, and some raised rice or millet as well. The cotton weavers, derived from a range of different ethnic groups, were not an endogamous artisan group and there was no preferential marriage to members of weaver families. What they seemed to have most in common was poverty, which linked to their social status. Cotton weavers were no longer necessarily the descendants of slaves, as once may have been the case, but newcomers to the profession were generally not of strong economic background. Yet in this society, with its crosscutting status hierarchies, poverty alone did not determine status; many people in Jenn6 were poor and carried
"noble" status, such as some of the weavers, but the remembered association with slaves continued to lessen the desirability of taking up the specialization.

A Working Model of Artisans' Relative Social Status in 1983. I must emphasize that none of the Jenn6 specialist groups, with the possible exception of the Fulani griots, fit neatly into social categories based on specific and discrete cultural rules, because of different influences, exceptions, and crossovers. Members of each group could have a personal status above or below that of their larger group, but the following scheme pertains to the groups, not individuals. Bearing this in mind, I have made a five-tiered hierarchy of artisan groups based on opinions collected from many persons in Jenn6 and my own observations as to relative social status of the artisans I have discussed in the preceding chapters.

This framework is for Jenn6 in particular, and represents the relationships between the artisan groups as of 1983. The Fulani griots were at the bottom of the hierarchy; griot goldsmiths were of lower ascribed status than Songhai/Arma goldsmiths, whatever the wealth or personal qualities of the individual. All of the Fulani griot artisans in Jenn6 were included in this category: goldsmiths, leatherworkers, and potters. Small discrepancies in status among the griots themselves did not change the group's overall position with respect to the other artisans and people generally.

I placed the cotton weavers in a stratum of their own, directly above the griots, because of their perceived roots in slave-related groups. Although most were nonaffluent farmers and many were not related to former enslaved groups, the very small profits of weavers and the tedium of the work reinforced the generally low opinion of the profession.

Above the cotton weavers were four comparable groups I have placed in one stratum--the blacksmiths, carpenters, numu potters, and boat builders. Although each of these groups is different, it is not possible to rank them relative to each other, and all have higher status than weavers and lower status than the next two categories. The blacksmiths, although they stand alone in terms of their particular spiritual heritage, belong in this central tier economically and socially. The carpenters are tied to them, although they also have ties to the Songhai/Arma. It was difficult to talk to people about the relative status of women and men in different groups; comparing women with men was a complicated issue. The Somono/numu potters I place with the smiths because, despite difficulties in stating it directly, people I talked with felt the status of these women was tied to that of their husbands. I would agree that the potters can be classified as part of this group. Although boat builders do not have a background in the numu groups of Mande societies, they are a hardworking, well-respected, but relatively poorly paid specialist group.

In the next stratum are the Songhai/Arma goldsmiths. The goldsmiths worked physically less hard than the blacksmiths, are better paid, and because of their frequent travels, western accoutrements, and superior homes had a higher status in the community.
The masons are at the top of this hierarchy. Their visibility, particularly in relation to the Jenné mosque and other architectural triumphs, contributed greatly to their social status in this area. Although many of their incomes were not as high as those of some goldsmiths, for example, their consistently high salaries in combination with their professional identities contribute to my sense of their status being above those of other artisans.

The Control over Specialist Knowledge

I move now to a review of the mechanisms developed by the artisans to control access to their knowledge. This issue is related directly to the interactions between artisans and other members of society, because boundaries help to limit the number and nature of eligible candidates who could participate in each craft. Social relations thus can be examined further by asking whom artisans consider eligible to become their heirs, how they control the size and quality of their group, and whether all artisans actively do this.

An apprenticeship, lasting sometimes as long as fifteen years, is one of the things that unites all specialist groups in Jenné. Although the length of the training differs depending on the individual and craft, there was no way around the personal relationship between a teacher and apprentice. It was the door through which one entered every group, as well as the way values and skills were inculcated into the aspiring artisan. Despite the openness of membership, which nearly every artisan I interviewed in Jenné and villages claimed was greater than in previous generations (a generalization supported by the literature), it remained true that most of the apprentices were linked through kinship to their mentors. There were bridging relationships formed between specialists in different crafts or ethnic groups. In such relationships, one could see how artisans might be independent of larger ethnic identities under some circumstances.

The most basic relationship among all the specializations was between father and son or mother and daughter. In the artisans’ own terms this included master/apprentice relationships between in-laws, uncles and nephews, aunts and nieces, cousins, and so on. Because of a tendency to marry within one’s ethnic group, artisan families were not usually multi-ethnic, even if apprenticeship was open to people of a different ethnic identity. For example, while a Bozo mason might take a Bambara or Marka youth as an apprentice, chances remained small that this apprentice would marry into a Bozo family. Hence, while there might be families associated with several ethnic groups practicing a craft in one place, they did not necessarily intermarry. There were a few exclusive links between artisans and ethnic groups. For example, pirogue builders were Bozo; I encountered no exception to this. Hand embroiderers, likewise, were Songhai/Arma (while sewing-machine embroiderers, who were often tailors as well, could be from other ethnic groups). Slipper and boot makers were exclusively Songhai/Arma. Resident leatherworkers were all Fulani griots in Jenné (but the itinerant Tuareg made comparable leather products in the region). In these cases, master/apprentice relationships were necessarily within single ethnic groups, and very often within lineages.
All of the other artisan populations in my experience might be dominated by members of one or two ethnic groups, but were open to others. They were not open to all others, however, nor would people of all ethnic groups be interested in becoming artisans. Thus, the cross-ethnic craft groups have predictable memberships, whether by ethnic affiliation or economic status. One of the most open artisan groups is that of the cotton weavers. Most cotton weavers in Jenn6 are either RimaiBe, Dogon, Bambara, or Songhai griots (horso). Apprenticeship could take place between adults as well as between fathers and sons, so people who were not from weavers' families could take on a new activity to supplement income in slow agricultural periods. It is difficult to imagine someone being denied the chance to apprentice to a weaver; it was a self-selected group of men who saw weaving, considered a back-breaking and tedious craft, as a good way to earn money. The strip cloth that the weavers produced was affordable by nearly everyone, there was always a market for it, and its production required only small amounts of capital investment. All the weavers cultivated crops or had access to grain in some other way. All weavers also had their own toolkits, and struck out on their own when they had learned enough to do so.

In the case of the Jenn6 blacksmiths, the eligible apprentices were normally the sons of marriages between Somono/numu, and either Somono or Somono/numu women, whether they were potters or not. In principle, the son of a potter and an ordinary Somono farmer could be apprenticed to the potter's blacksmith kin, but this did not happen often. When I interviewed smiths about the range of potential applicants, nearly all insisted that today anyone could become a smith, and then they would often list exceptions such as griots. In fact, as noted in Chapter 6, virtually no one raised completely outside the realm of blacksmithing seemed to enter it as a profession. The examples given to me of non-kin apprentices were youths from outside the local numu lineages, but from smith families elsewhere, who were in Jenn6 to study the Koran. Because blacksmithing was no longer a lucrative business in Jenn6, and because unlike the case of weaving, apprenticeship and investment were both costly, it was not the kind of craft attractive to outsiders.

The Tour6 lineage of blacksmith-carpenters provides an example of numu and Songhai/Arma intermarriage, one that underlines the special heritage of blacksmiths in particular. The senior Tour6 himself had Songhai/Arma heritage, but he married three Somono/numu women. His children considered themselves Arma (except for one step-son who called himself Marka), and all were blacksmiths as well as carpenters, crafts that often occurred together in Songhai society. No one associated with other ethnic groups was involved in blacksmithing in Jenn itself. I know of no intermarriage between Bambara and Somono/numu families around Jenn6, a fact that was somewhat surprising, except that most of the Bambara were not Muslim.

The Jenn6 goldsmiths, predominantly Songhai/Arma, with one Fulani griot and one Somono, had apprenticeships similar to that of the blacksmiths, yet theirs was potentially a more attractive craft: it was not physically hard work, and was lucrative. The Songhai/Arma set the tone for all the jewelry-making in Jenn6
itself, while the Fulani griots dominated jewelry production in the villages. The Somono element among the Jenn6 goldsmiths was unexpected, and one of only two examples of Somono artisanry aside from the blacksmiths and potters that I encountered.

Goldsmithing in the 1980s was an example of the type of craft that would have to be protected from too many willing apprentices. The shops in Jenn6 had plenty of work, but even within the goldsmith families the conversion of one goldsmith to a tin and aluminum caster showed that there might be a limit to how many shops Jenn6 could support. Blacksmiths and goldsmiths in Jenn6 all claimed that they number the same from generation to generation; however, there were many stories of men who had grown up as apprentices to their fathers, but then left Jenn6 for better opportunities, some as artisans but many as merchants. Goldsmiths, unlike weavers, for example, depended on clients with expendable wealth, of which there was little enough in Jenn6. Nevertheless, the goldsmith forges were full of apprentices, most of them family members. Most of them would return to their home villages after their training.

Oral traditions, in which blacksmiths were named as the originators of goldsmithing, helped to validate a relationship between the two groups, in the absence of family ties linking Songhai/Arma goldsmiths and Somono/numu populations. The son of a RimaiBe farmer, for example, would not have access to Songhai/Arma goldsmithing as an occupation, because he would have no culturally legitimated link to that craft.

It is possible to see connections that have formed between the artisans when there is more to be gained from liaisons than from isolation—e.g., the Arma blacksmith's intermarriage with the Somono/numu potters, and the griot apprenticing with the Somono goldsmith. Although it could be argued that in these two examples there were other choices for the individuals in addition to the ones they made, boundaries were overstepped when economic and social benefits, such as a large social group with which to articulate, and access to a wealthier clientele, presented themselves. In a broader sense, the presence of goldsmiths from several backgrounds, working in the same community and producing the same kinds of jewelry, exemplify the coming together of families, culminating in exchange of apprentices, which would appear to be a full acceptance of non-family members into the artisan community. This is a small example of the way in which common interests can bridge groups with different cultural and social backgrounds.

The social separation of artisans in contexts other than marriage and apprenticeship was not a major issue for its own sake in Jenn6. That is, the wealthy Somono man who had made his money in commerce would not be pleased about his daughter marrying a blacksmith, but not because it was socially unacceptable on the grounds of his background; rather, it was not a wise choice economically. The daughter of an unmarked Somono fisher or farmer would do well to marry a blacksmith, especially an older smith who had a diversified income. Likewise, the daughter of a wealthy Fulani griot goldsmith would not be encouraged to marry a griot leatherworker, among the poorest of the griots. A
Fulani griot leatherworker's daughter is socially, if not economically, compatible with all of the other griots, and if she can marry upward into a goldsmith's family, or marry a wood worker or wool weaver, that would be acceptable as well (LaViolette 1995).

The parents of potters seemed to favor a match that would allow their daughter to give up her own pottery-making activities, because they were seen as burdensome in addition to all her other duties as a wife and mother. This underlines the point that the success of a potter was measured in how soon she was able to give up potting. Blacksmiths often had a first wife who was a potter, someone they married when they were young and who was also from a numu family. They also usually had younger wives, some of whom potted and some of whom did not. If the women were receiving enough spending money from their husbands, they often would not pot but instead, engage in small-scale commerce--buying and reselling cooking ingredients, for example--something that provided a little cash, but did not require the hard work of potting. Lately, as a result of increasing economic pressures, many young women claimed to be potting more actively than a few years before because their input into the household economy was essential.

Masons in Jenn6 married freely within their relative ethnic groups. Their wives performed no artisan functions. Masons were respected, did well financially compared to nearly all other artisans, and because of the patron/client relationships they inherited through their masters, had a steady source of income. Although masonry was hard work, it was financially rewarding, and masons willing to travel away from Jenn6 were guaranteed a good living. The work they did on their own homes brought prestige to their families, their quarters, and enhanced the marriage possibilities for their children.

Artisans, judging from my observations, form social relationships on the same bases as non-specialists, i.e., they have friends and acquaintances across ethnic groups and economic classes, but tend to gravitate to those with their own ethnic and economic characteristics. Thinking that the composition of age groups (age cohorts by which individuals are identified throughout their lives, by quartier and year) in Jenn6 might indicate a separation of blacksmiths and/or Fulani griots from others, I polled several cohorts in Kanafa and Seymani, quartiers where numu families and Somono were mixed with a variety of other groups, and found that the cohorts included all Muslim children of the same sex born in each calendar year. Although there were concentrations of ethnic groups and artisans in various neighborhoods in Jenn6, the nonexclusive residence patterns of artisans reflected the fact that they were considered eligible for intimate relationships with their age peers. When I asked specifically about whether blacksmith children were included in these groups, I was told that only the Christians were not part of these age groups. Presumably those adhering exclusively to indigenous religions would also be excluded, who in Jenn6 included Bobo and some of the Bambara. There were also other visible ways in which Christians were separated from the mainstream in Jenn6, including separate burial, and clothing and jewelry styles different than those that signified Islam such as embroidered robes and
filigree jewelry. Yet nothing about the blacksmiths, or about any of the artisan groups in Jenné, identified them externally as different from the cultivators, merchants, or Muslim clerics around them. Economic status was the chief factor in how people dressed. Whether or not someone was born into an artisan family, including griots, did not adversely or necessarily affect life-long friendships, love affairs, neighbor relationships, and so on. It affected marriage ties, but not specifically because of any stigma associated directly with craft production per se.

Archaeological Considerations

As I said in the introduction, at the end of the day many of the findings in this study are more relevant to ethnographic concerns than to archaeological ones. Many characteristics of artisan groupness are intangible and ephemeral, and would not be recognizable archaeologically based on our current sense of the region’s record. It is possible nonetheless to make general comments that draw on the previous chapters and the above, concerning possible clues to the presence of artisans on an organizational level above that of the individual, which could be significant for discussions of early social stratification and separation.

The physical evidence for a large group of blacksmiths could be as straightforward as the evidence for a single smith. This would include slag from the forging process, the burnt orange remains of a fire pit, concentrations of charcoal, an area of soil blackened when iron is plunged into it to cool, bits of glazed cone from the tips of the bellows, a thick supporting column, or a floor with high relief combining several or all of these characteristics. Identifying an iron forge, or several, is not an archaeological problem of extraordinary dimensions, although I believe that any one or two of the above characteristics would not be enough to make a positive identification. A combination of the fire pit, the color of the soil (orange, with a large quantity of charcoal bits), and iron slag and/or iron is critical. Locating evidence for several workshops in one time period of a settlement would be desirable before suggesting the number or role of artisans at a site, or in a region.

One of the hallmarks of organized craft production is a degree of uniformity in the manufactured wares. As discussed earlier in this study, conservatism in ceramics is a marked characteristic in the Inland Niger Delta, but this could be related to larger social processes as well. There was a predictability of style and type within almost all of the object classes produced in Jenné. All the blacksmith shops in Jenné made most of their items in the same ways, despite their own opinions to the contrary. Although innovation was not uncommon, the customers determined much of what was made through their demand, and they seemed to favor basic forms in tools, and household items that conformed to their expectations. The items for sale in the market in Kouakourou by Somono blacksmiths there, 45km from Jenné, were fundamentally the same as well. This is not to say that there were no specialties within blacksmith shops in Jenné or its vicinity--there was a shop one went to for repairing firearms, one for gris gris against miscarriages, and one where the older smiths made the finest hand-carved door locks in town. But surveying the goods laid out by smiths over 50 market days, it was clear that there was a typical assemblage of products for that time period, with some seasonal.
variation, making up perhaps 90% of the stock, and that buying those items from one shop was the same as buying them from another. The archaeological evidence for blacksmithing in this region has not amassed to a point where uniformity of artifacts is an issue, and with the instability of iron in the ground, it may never be. However, it is significant for craft production in general that within shops, each of which represented a group of family members (as the system works at present; groups of smiths do not necessarily represent family relationships), the uniformity of objects produced reflected a standard of quality, and there tended to be a great deal of uniformity among workshops as well. Because we must depend more on the remains of blacksmith workshops and byproducts of forging than on finished artifacts in this case, there are perhaps other patterns concerning blacksmiths that are more useful for archaeologists. As suggested above, locating one or several forging sites in a contemporaneous, perhaps contiguous, archaeological context would be helpful if attempting to establish group production. The smelting evidence could also be revealing if it were possible to correlate it with evidence for forging. If men were still using native ore today, and were transporting that ore to the vicinity of Jenn, I would expect the smelting to take place on the home sites of the men, and for them to take the iron itself to distant sites to be made into commissioned articles. There would thus be fewer smelting sites than forging sites, just as there were fewer permanent workshops in the sum of villages in the cercle of Jenn6, for example, than there were forging sites, including those temporary forges set up by migratory smiths. The manufacturing sites of potters were more elusive than those of blacksmiths. There are a few possibilities for archaeological evidence of those sites: e.g., pots filled with clay, significant amounts of pottery ground into grog, and rectangular or discoidal baked clay or stone pounders used in the hammer-and-anvil manufacturing process. The simple depressions and slight elevations in the working floors, the many perishable tools, and the general absence of exclusive pottery-making areas are not likely to be obvious in an archaeological context. The firing sites of today, great flat circles with their purple and orange ash from dung and grass fires, might well be preserved, as well as the concentrations of burned and broken pottery. For pottery, the big difference in Jenn6 and the region was the difference immediately visible between that made by the Somono/numu potters on the one hand, and the griots on the other. What was true for smiths was true for potters; most of what each potter displayed in the market was the same as that of the woman sitting next to her, although there might be some difference in quality, and the odd specialty item; one woman was the only one who made a certain cake pan in Jenn, for example. But the basic shapes, styles, and decorative designs were clearly and closely related, and this is hardly surprising. We have no data to compare pottery from the modern era to that of even a century ago, to see if the conservatism one sees in the archaeological record spanning centuries and
thousands of square miles has a recent equivalent. However, the relatively slow but steady rate of pottery production in Jenn6 was not the only kind of production exemplified in this area. The pottery mass production in the Marka/Bozo/Somono village of Soa illustrates how several dozen women, producing large quantities of highly similar pieces of pottery throughout the course of a year, could dispose of that pottery in a few weeks in scores of villages, and thus create an instant, if limited, homogeneity of material culture in villages of different ethnic and cultural backgrounds. Soa illustrates a situation in which villages with no craft producers in residence could be flooded with the goods of non-resident artisans, and often with the goods of one artisan produced throughout an entire year. In archaeological terms, this might display itself in sites with no evidence at all for pottery production--no wasters for example--but which have plenty of evidence for ceramic use. When potters accompany their blacksmith husbands in their travels, they often make their pottery at the village sites themselves, so there would still remain at least one alternative to having permanent potters in residence if firing sites were all the archaeologist found.

The shapes and styles of the pottery made in Soa were remarkably uniform. It is possible to imagine multiple villages of these potters maintaining that uniformity and productivity year after year, and aggressively distributing pottery over very large areas. Such production may well have been characteristic of Jenn6 itself in the past, but the slower rate of production maintained more recently nearly year round appears adequate to supply the diminished urban market, and it did not seem to promote the kind of uniformity seen in Soa.

The masons may be the most difficult group of specialists to detect archaeologically. Apart from his tools, most of which were perishable, there was little to identify the house of a mason, or even the work of a mason from that of a nonspecialist in a hypothetical archaeological context. A significant clue to their presence would be uniform architecture of a type requiring more than average skill, subjectively determined--indications of two stories, of stairs, of special architectural pottery--indications that someone with an architect's eye planned the building, or the community, as opposed to merely a builder. The Jenn6 bari claimed that their presence in Jenn6 went at least as far back as did the jennefrey, the cylindrical mudbricks, seen in the archaeological record for about a millennium. However, many of the structures at Jenn6-jeno exhibiting these mudbricks were small houses comprising a series of circular rooms. On the basis of what nonspecialist builders were able to build in villages, these small houses would not have required specialists, unless the society mandated it. On the other hand, contemporary masons are commissioned to build very small square rooms and houses that do not require the depth of skill they actually possess. The very nature of this type of architecture, even the most glorious examples of which are made with the same relatively impermanent materials--melted sun dried bricks, thin wooden beams, clayey plasters--make the task of tracking the achievements of ancient specialist masons difficult (LaViolette 1994).
Only one prominent aspect of the archaeological information currently available for this area does not have a possible counterpart in the modern period. There is a combination of evidence for the smelting and forging of iron on many archaeological sites in the hinterland of Jenné, with concentrations of surface artifacts correlating with different-sized sites, and only with certain sites in each cluster; neither of these is a phenomenon of present settlement patterns. M. Clark's forthcoming analysis of the sub-surface material from these sites may shed light on the possible linkage between clustering and specialization. Site clustering itself is no longer part of the settlement pattern in the Inland Niger Delta, and has not been since Jenné replaced Jenné-jeno as the major urban site in this area (16th century A.D.). The presence of slag from primary and secondary smelting, an indication that ore was brought into this area for its first and subsequent smelts, is also no longer characteristic because scrap iron has been the "raw" material for blacksmiths for at least 50 years. The combination of site clustering, and the presence of slag at some sites in each cluster, is, I believe strong evidence for specialization, if it is born out in the subsurface material. The oral traditions about the abandoned settlement of Kongusa (Ch. 6) suggest that such specialization makes sense in the local context. Contemporary blacksmiths, although not limited to certain site sizes per se, were not uniformly distributed across the landscape. They tended to be concentrated in the larger settlements, with over several thousand people, and then in the smaller ones where there was a sizable Sonono or Bambara component. A more detailed analysis of the rural regions, including the interaction of artisans, a quantified correlation of artisans to site size and ethnicity, and a study of artifact variability among villages of different ethnic makeup, would be useful for understanding regionalism of material culture at a deeper level.

What would we have to find in the archaeological record to be convinced that craft producers at various times in the Iron Age were not organized in any way similar to the ways specialists were during this period of study? Because we had in Jenné a range of specialists as decentralized as the potters and cotton weavers, on the one hand, and as organized as the masons on the other, it is not possible to define a specific pattern that we must search for; nor are the archaeological correlates of these groups likely to yield themselves up to us easily. What I would have to find, and would be surprised to find, is an absence of all patterns: no multiple work areas; no correlation between potters and any other artisans, which might lead to the conclusion that potters were men and not linked to blacksmiths; a lack of uniformity and quality in manufactured goods; an absence of building types that required skilled planning and construction; random surface scatter on sites; objects found in the same concentrations on all contemporaneous sites; and evidence for ceramic production at all of the sites where ceramics themselves were found. Frustratingly, finding the opposites of any of the above cannot lead us directly to the conclusion that we have organized artisan production, but it would be highly suggestive.

I conclude by reviewing what I see as the most useful realms of information to result from this study. I believe that the mechanics of the various distribution systems at work in the vicinity of Jenné-a combination of marketplace selling,
both locally and sometimes at a distance from the point of manufacture, special commissions arranged with the artisans themselves, and the travel of artisans to rural villages, markets, and, in the case of masons, larger towns--explains the transmission of goods and services in the modern period. Again, however, issues such as the homogeneity of widely-distributed prehistoric ceramics require an explanation, in addition to a suggestion of the mechanisms involved. The manufacture of ceramics at one site (or a series of similar sites) on a large scale and the transporting of those ceramics to numerous other sites at varying distances (some Soap potters went nearly 100km with their goods) requires a motivation. In recent Jenn6 the motivation was simple: people needed more grain than their fields could produce. Within memory, when environmental conditions were better, travel was also common, as was the export of mass-produced pottery. The motivation then seems to have been approximately the same: more grain collected from villagers was less grain that an artisan had to produce on the family's land, although nearly every artisan I worked with claimed to have farmed under non-drought conditions as well. Taking goods and services directly to consumers obviated the need for customers to go in search of a competitor. Past motivations are unknown, but they may well have included these. That almost none of the non-griot male artisans in this area was a full-time specialist, but in fact attempted to produce, or paid to have produced, as much of his own grain as possible, indicated that the line drawn between producers and non-producers isolated only a small portion of the population. Although there was a stratum of griot specialists across the lower part of the society, many of them were also farmers. The Fulani griots in the area of Jenn6, to the best of my knowledge, rarely took part in agriculture or pastoralism, and were exceptional in this way. Other "specialists," such as the transplanted bureaucrats, rarely farmed. Almost everyone else did, including migrant workers, if they stayed in Jenn6 long enough to make a request for a hectare of two of land.

In addition to the technological information concerning producers and production in Jenn6, I have provided evidence for the ways in which the tripartite Mande social model, if it was ever more accurate a description than it was in 1983, has changed into something with far more flexibility and nuance. Artisans did not fall into a single category within this society--not on the basis of status, wealth, or ethnic or other primary social ascription. Moreover, the diversity of specialist organization in Jenn6 was much greater than had been evident from the majority of the literature. This close examination of three artisan groups in particular, in the context of other artisans and non-specialists, provides a range of artisan models for archaeologists to consider when forming interpretive hypotheses. The tendency to think of most artisans as special-status individuals, tightly bounded by endogamy, along the lines of the classic Mande blacksmiths prominent in the literature, has influenced theories on the roles of specialists in prehistory. While this model is a valid source of hypotheses, the consideration of as many models as possible might prove profitable for archaeologists.
The patterns of similarity in the products of the blacksmiths, potters, and masons draw attention to the various sociocultural mechanisms by which they were produced and distributed. The Jenn6 masons, for example, have been a major factor in the spread of Sudanese architecture over a wide geographical area, through their own movements to other areas, the training of apprentices from diverse origins, and the spreading of the Sudanese elements to many other village masons groups over many generations. The blacksmiths, from Jenn6 and other villages, often traveling alone over shorter distances than the masons, provided villages with their standardized goods, sometimes the same villages over many years. The diversity among the goods produced by the blacksmiths in Jenn6 was not great, with a few exceptions. The smiths strove for standardization in the appearance and quality of their goods, especially within shops, although there was no city-wide or region-wide organization controlling that standardization. The potters of the area operated as individual artisans when they transported pottery to settlements other than their own, and as part of a blacksmith/potter pair when they travelled with their husbands to other sites. The quality of their work varied greatly, but the appearance of pottery, including its form and decoration, was consistent within broad categories (pots of Somono/numu potters, pots of griots in Jenn6). In the one example of mass production I observed, the quality of the pottery was reasonably high, but the decoration of the pottery was sacrificed. Jenn6 dominated its hinterland politically, culturally, and in most cases, economically. Although Jenn6 had an influence on the cultural material of the villages and towns in that hinterland, the artisans of Jenn6 did not spread its own material culture to the periphery as much as might have been expected in a regional archaeological situation. The inter-village mechanisms for the production and transmission of goods were much more developed than I expected, and the goods themselves, despite claims to the contrary by Jenn6 and village artisans, were of high quality, at times even higher than in Jenn6.

If the region of Jenn6 has seen a mixing of numerous cultures and social groups over the last two millennia similar at all to what it has in the last several hundred, the chances of one highly stratified social system organizing the population for very long may be unlikely. Politically, the area may well have been under the domination of single groups at different times, as it is ruled by the Malian national government today. Socially and culturally, however, there is tolerance for a great deal of internal variability. The different specialist groups in Jenn6, whose members do not view themselves as part of any unified group of producers in the society, are an excellent example of this variability. And the Jenn6 artisans, in relation to those in the region, reinforce the need to examine the hinterland archaeologically, in order to establish the nature of city-village and village-village interaction in prehistory.

Fig. 5.1. Goldsmith Bajini Yaterra elongating a bar of gold he will make into the links of a necklace. The nail-shaped anvil, tongs, and pliers were made by local blacksmiths, and are characteristic of both blacksmiths' and goldsmiths' tools. At
far left is a mechanical bellows, operated with one hand. At right is an industrially-made scale with brass weights, found in most goldsmith shops in Jenn6. The scale, bellows, locking box, calculator, and dress of the goldsmith are symbols of affluence. Jenn6, Farmantala, 1983.

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Fig. 5.2. Goldsmith's terracotta mold and gold bar. The goldsmith blocked a channel with a bit of wet clay to create a gold bar of the appropriate length. At left sit two hammers manufactured locally by blacksmiths. These hammers with their small striking surfaces are characteristic of, but not exclusive to, goldsmiths' toolkits. Beneath the hammers are a pair of tongs. Senossa village, 1981.

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Fig. 5.3. Moroccan-style window made by Arma carpenters for a recently built home. Cement had been added to the mixture used in the window casing, giving it a smooth appearance. The hinges and closures are imported, but the decorative fittings were made in Jenn6. Jenn6, Konofia, 1983.

Fig. 5.4. Cotton weaver at work on a strip loom. The heddles are operated by alternating movements of the feet. The shuttle, pulley, and all other pieces of equipment are carved from wood by the weaver. The warp reservoir is pulled toward the weaver on a basketry loop, weighted down by two mudbricks. The basket to the weaver's left is a receptacle for the woven strip. The mudbrick collapse in the background resulted from an incomplete rebuilding project and at least one rainy season; such buildings are commonly seen around town. The window shutters are corrugated metal, and the rain spouts are those made by Somono/numu potters. Jenn6, Yoboucaina, 1983.

Fig. 5.5. A Fulani merchant displaying two high-quality wedding blankets woven on a strip loom similar to the one pictured in Fig. 5.4. These are the creations of a Fulani griot weaver. The warp, which runs top to bottom in the photo, is cotton, and the bands on the weft are both cotton and wool. Mopti, 1983.

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Fig. 5.6. Pirogues moored at the southeastern edge of Jenn6. The small boat at left is approx. 5m long, and the two in the center are between 8-9m long. The marigot is receding at the onset of the dry season. Jenn6, Seymani, 1983.

Fig. 5.7. Apinasse approaching the northeastern edge of Jenn6, loaded with goods and passengers from Kouakourou. The boat is approx. 18m in length and nearly 3m wide at its center. The men in the foreground stand in apirogue, into which they will unload the sacks of grain, fish, and cloth from the pinasse. The large boats are built by Bozo, usually owned by Somono, and operated by Somono and Bozo. Jenn6, Algasba, 1983.

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Fig. 5.8. Bozo pirogue maker Baba Kontao, smoothing irregularities in a plank. After completion of this step, he will glue and nail a made-to-fit plug into the hole. His adze was made by a local blacksmith. Jenn6, Seymani, 1983.

Fig. 5.9. Baba Kontao making a permanently curved plank by inserting pressure on it while soaking the wood with water. The plank was first scorched over a small fire contained in a pot. Most of the children present are not participating in the work, but enjoying the shade of the shelter. Jenn6, Seymani, 1983.

Fig. 6.1. The late blacksmith Baba Kass6 (center) with a son (far right), grandson (left), and visitor (in doorway). In the foreground of the shop is a sandstone with a depression worn in the center, a freestanding water pot, a ship's rope-cleat used as an anvil, and a carved daba handle. The dress of the elder is typical for adult blacksmiths (compare with goldsmith dress, Fig. 5.1). The amount of scatter here was typical of those forges with locking doors. Jenn6, Seymani, 1983.

Fig. 6.2. The courtyard of Bambara merchant Almami Tawati with its stock of scrap iron for sale to area blacksmiths. The iron was weighed on the scale at right and sold by the kilogram. Jenn6, Bamana, 1983.

Fig. 6.3. Blacksmith Mamadou Sounkoro reshaping the tips of his tongs while his son works the bellows. The bellows pipes are anchored by a large piece of scrap iron. The imported bucket holds charcoal. The absence of scatter is typical of shops lacking lockable doors. Jenn6, Seymani, 1983.

Fig. 6.4. Blacksmith Tinka Samassekou heating the blade of a socketed ax head. More visitors than usual were in the shop due to the weekly market. The ceiling is made of unplastered poles that allow smoke to escape and light to enter. The large awls to the right of the quenching pot are used burn holes in wooden handles for hafting. The smith is using part of an automotive engine block as an anvil, and has a locally-forged one as well. The basket is for charcoal. Kouakourou village, 1983.

Fig. 6.5. Blacksmith Bamoye Kass6 scoring a red-hot piece of automotive leaf-spring while his nine-year-old son holds it against the anvil. Each triangular segment will become a daba blade. In the center of the photo is the metal charcoal bin. Across it lies the "fire carrier," which the blacksmiths use each day to transport live coals from their home kitchens to the forge. The stationary quenching pot, made by the smith's wife, sits to the left. A pile of scrap iron sits
between the boy and the water pot. All of the tools were made by the smith.
Jenné, Djoboro, 1983.

7.1. Somono/numu potter Niamoye Nientao finishing the inside of a water pot, in
a older style rarely being made in Jenné but still popular in the surrounding
villages (see Fig. 7.12). She turns the dessen with her left hand. Her dress is
typical of the potters and of other women when doing physical labor. The large
gold earrings constitute her personal inherited wealth. At right is a baked clay

Fig. 7.2. Griot potter Jenneba Lobo Gadjaka building up the side of a water pot
which she has shaped previously over a mold. The leather-dry pot sits in a
depression filled with sand in the earthen floor of her main room. At right is a
baked clay pounder for shaping pots. Her clothing and glass jewelry are
characteristic of those worn by nonaffluent women when involved in physical

Fig. 7.3. An assortment of pottery made by griot potters, in the home of Aissata
Pulo Kassé, showing the typical globular outline and rounded base of local griot-
made pots. The perforated pot at left is a couscous steamer, used by lining with
cloth, filling with milled or pounded grain, and placing over a pot of boiling
water. The bowl in the foreground is an ablution bowl; this type is uncommon

Fig. 7.4. Griot potter Fanta Guro Kassé thinning the wall of a small cooking pot
against her hand. A carved wooden bowl, made for this purpose, supports and
shapes the pot. The wooden paddle is normally used on the outside against the
anvil or pounder on the inside. The knife at left is for cutting a straight edge
which will then be finished into the rim. The dress and glass jewelry are typical of
those worn by nonaffluent women when at work. Jenné, Yoboucaïna, 1983.

Fig. 7.5. Griot potter Aissata Pulo Kassé painting leather-hard water pots in her
courtyard. She is applying red designs over a band of white paint that will fire to a

Fig. 7.6. Somono/numu potter Niamoye Nientao rouletting the bottom half of a
pot as it air-dries on its mold. The mold is a pot dug out of the ground at a
neighboring abandoned village. In the background are rain spouts and pit lids,
Fig. 7.7 Assorted tools for decorating the surface of Somono/numu pottery. The baobab seeds in the center, called sirakolo, are strung by the potters and used for burnishing. The two iron tools at upper right and the rectangular wooden tools are combs for incising lines; all of these are made by blacksmiths. The four cylindrical sticks at left leave rosette impressions when the ends are pressed into a clay surface. The reeds mounted in clay at bottom are dragged to make thick parallel channels. All the tools were in use in Kouakourou; only the burner and reeds were being used in Jenn6. Kouakourou village, 1983.

Fig. 7.8. Griot potter Aissata Pulo Kass6 (right) and her neighbor, not a potter, arranging pots for firing on a bed of dung. The completed pile will be twice this high, with dung and straw mounded over it and sprinkled throughout. The clothing of the woman at left is not working attire, while that of the potter is. Jenn6, Yoboucaina, 1983.

Fig. 7.9. Somono/numu potter Kadidia Konipo, at her habitual firing place just outside Jenn6, adding grass to a recently ignited mound of pots in the late afternoon. In the morning she will transport the fired pots to the Monday market. Behind her to the left and right are circular patches where other women fire pots. Some are marked by new piles of cow dung, brought there either by paid laborers who collect it for them, or by the potters themselves, in headloads. Jenn6, Franco-Arabic School, 1983.

Fig. 7.10. Somono/numu potter Niamoye Kontao making the lower half of a water pot (see Fig. 7.11). She raised the wall vertically and then flared it out by pressing
the calabash piece against the interior while rotating the dessen. Her bowl of
soaking tools sits at left. Soa village, 1983.

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Fig. 7.11. Finished water pot (foreground) made by Niamoye Kontao and six
drying pots awaiting painting and firing. Soa village, 1983.

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Fig. 7.12. Stockpiled pots made by Somono/numu potters in Soa, awaiting
transport to markets and villages. In the foreground are piles of cow dung
collected for future firings. Soa village, 1983.

122

Fig. 8.1. Tools of Jenn6 mason B6 Sau. From upper left: roller for cement floors;
long and short multipurpose crowbartype tools, or batons (Fr.); European-made
level; long tape; square (iron); basket for carrying banco; plumb bob; trowel; tape
measure; and wooden square with handle on back for smoothing interior wall
surfaces. The batons, basket, trowel, and various pieces of string and wood are all
the tools used by most village masons. Jenn6, Djoboro, 1983.

Fig. 8.2. Eroded house wall viewed from courtyard, showingjennefrey (cylindrical
hand-shaped sun-dried mudbricks) at bottom left and tubabufrey (rectangular
mudbricks made in wooden frames), above and right. Jenn6, Algasba, 1983.

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Fig. 8.3. Detail of the central minaret of the Jenn6 mosque; this minaret contains the interior mihrab, the niche facing Mecca. The protruding beams at the left mark the ceiling/roof line; those jutting from the minarets identify this as religious architecture. Ostrich eggs, symbolizing Muslim purity and unity, are mounted atop each minaret; due to the disappearance of ostriches from the Sahel, Somono/numu potters make convincing ceramic replacements painted white seen in many villages. A single light bulb is mounted near the top of the central minaret, below the eggs. Jenn6, 1983.

Fig. 8.4. Examples of Sudanese architecture, including Moroccan-style window shutters. The people of Jenn6 consider the house at right, built by the latter part of the 19th century at the latest, the oldest still standing in the city. Only the front of the house had been replastered recently; rain and wind eroded the sides (visible at upper right) and rear of the house. Jenn6, Algasba, 1983.

Fig. 8.5. Annual recr-pissage of the Jenn6 mosque, which takes place in April on two successive Sundays before the onset of the rainy season. Parades of young men carry baskets of banco from the edge of the marigot, while young women carry buckets of water. Once at the mosque, masons combine banco and water, and apply the mixture to the exterior walls. Jenn6, 1983.

Fig. 8.6. Young masons applying banco to the southern wall of the Jenn6 mosque. Although the replastering is a citywide effort, masons alone climb the ladders and apply the mixture. Jenn6, 1983.

Fig. 8.7 Bozo masons in Soa (fams. Niamentao, Singentao, and Kientao). The man at right holds a baton (see Fig. 8.1) which the masons consider one of their trademarks. Their dress is typical of that worn by workers outdoors, whatever their activities. Soa village, 1983.

Fig. 8.8. A narrow street in Soa leading to the mosque, built in the Sudanese style by Soa masons around the turn of the century The architectural pottery visible
was made in Soa. Millet stalks and firewood are stored on the roofs at left and center. Soa village, 1983.

Table 3.1. Artisans Interviewed in Jenn6

<table>
<thead>
<tr>
<th>Class of Artisan</th>
<th>Number interviewed*</th>
<th>Number living in Jenni in 1983</th>
<th>Approx. % interviewed</th>
</tr>
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<tbody>
<tr>
<td>Blacksmiths</td>
<td>16</td>
<td>16</td>
<td>100</td>
</tr>
<tr>
<td>Griot potters</td>
<td>3</td>
<td>3</td>
<td>100</td>
</tr>
<tr>
<td>Somono/numu potters</td>
<td>15</td>
<td>15</td>
<td>100</td>
</tr>
<tr>
<td>Masons</td>
<td>25</td>
<td>100 (est.)</td>
<td>25</td>
</tr>
<tr>
<td>Goldsmiths</td>
<td>14</td>
<td>20</td>
<td>70</td>
</tr>
<tr>
<td>Carpenters</td>
<td>4</td>
<td>5</td>
<td>80</td>
</tr>
<tr>
<td>Slipper makers</td>
<td>2</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>Leatherworkers</td>
<td>3</td>
<td>4</td>
<td>75</td>
</tr>
<tr>
<td>Cotton weavers</td>
<td>3</td>
<td>100 (est.)</td>
<td>3</td>
</tr>
<tr>
<td>Boat builders</td>
<td>1</td>
<td>24</td>
<td>4</td>
</tr>
<tr>
<td>Hand embroiderers</td>
<td>2</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Tailors</td>
<td>2</td>
<td>15 (est.)</td>
<td>13</td>
</tr>
<tr>
<td>Tuareg metalsmiths</td>
<td>3</td>
<td>3</td>
<td>100</td>
</tr>
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* Numbers do not include children under 20.

Table 4.1. Ethnic Groups in Jenn6

<table>
<thead>
<tr>
<th>Ethnonym (and in villages)</th>
<th>(and other)</th>
<th>Occupation</th>
<th>Religion</th>
<th>Language spoken</th>
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<tr>
<td>Mande-related groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>Songhai</td>
<td></td>
<td></td>
<td>Islam</td>
<td></td>
</tr>
<tr>
<td>(Bozo, Bambara?) Songhai</td>
<td></td>
<td></td>
<td>Islam</td>
<td></td>
</tr>
<tr>
<td>Islam</td>
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<td></td>
</tr>
<tr>
<td>fishing, farming (commerce)</td>
<td></td>
<td></td>
<td>(Indigenous beliefs)</td>
<td></td>
</tr>
<tr>
<td>farming, commerce</td>
<td></td>
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<td>(Indigenous beliefs)</td>
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<tr>
<td>farming, fishing commerce</td>
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<td>(Indigenous beliefs)</td>
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<td>Fulani-related groups</td>
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<td>Fulani RimaiBe</td>
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<td>Islam</td>
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<td>Songhai-related groups</td>
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<td>Islam</td>
<td></td>
</tr>
<tr>
<td>Songhai JennenK6</td>
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<td>Islam</td>
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<td></td>
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<tr>
<td>Islam</td>
<td></td>
<td></td>
<td>(indigenous beliefs)</td>
<td></td>
</tr>
<tr>
<td>Farming, labor (commerce)</td>
<td></td>
<td></td>
<td>(indigenous beliefs)</td>
<td></td>
</tr>
<tr>
<td>Bambara Bobo</td>
<td></td>
<td></td>
<td>(indigenous beliefs)</td>
<td></td>
</tr>
</tbody>
</table>
Bambara (Bambara)
Bambara (Bobo)
Bozo
Marka Somono
farming labor
Fulfulde (Fulfulde)
Fulfulde (Fulfulde)
Islam
Islam
pastoralism, farming (commerce)
farming, pastoralism (commerce)
Songhai
Songhai
Islam
Islam
Dogon
Farming, commerce
Farming, commerce
Fulfulde (Dogon)

Table 4.2. Major Artisans in Jenné and their Ethnic Associations
Artisans
Ethnic associations
Blacksmiths Potters Masons Goldsmiths Boat builders Cotton weavers
Carpenters Leatherworkers Slipper makers
Somono/numu
Songhai/Arma Marka
Somono/numu
Fulani griot
Bozo
Songhai
Songhai/Arma Somono/numu
Fulani griot
Bozo
Rimai Be Dogon Songhai griot (horso) Bambara
Songhai/Arma
Fulani griot
Songhai/Arma

Table 6.1. Blacksmiths' Manufactured Items
Songhai terms, some with Bambara influence
anvil ax
baton (masons' crowbar) bellows bike rack calabash-repair needle charcoal burner
perforated ladle, fire carrier fishhook grill hammer hinge hoe (daba) hook (to place in wall) key
knife nail
needle pin for parting hair pistol pliers plow push cart scissors, shears scythe
shotgun trowel wooden lock
* French-derived vocabulary  
** Arabic-derived vocabulary

entara dahsi boundou founsoukourou portebaggage* binyeh fourno *
nounehjoguru dabouriyyeh simindigourou marton * gond* koumbou, kauna 
pwantî* koufaliyeh kuri pwantî* sirba taho kaboo§h** pince* sarine 
ateropouspous* * seezo* horso malfa** troyel* koufal

** Table 7.1. Somono/Numu Potters’ Manufactured Items  
Songhai terms, some with Bambara influence

<table>
<thead>
<tr>
<th>Item</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ablution bowl</td>
<td>bed leg biscuit pan bowl</td>
</tr>
<tr>
<td>cake pan</td>
<td>charcoal burner cooking pot couscous steamer incense burner large cooking pot for rice perforated lid pot lid</td>
</tr>
<tr>
<td>rain spout</td>
<td>small cooking pot spouted water pot stand for cooking pots stool tournette (potters’ turntable) toy</td>
</tr>
<tr>
<td>tripod cooking stand</td>
<td>wash basin with built-in stool water pot</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>alwalachambou leecheh alfintakusu kusu</td>
<td>sinasurkusu labufurno* consou</td>
</tr>
<tr>
<td>couscousdonfon ** duguchambou tasukusu donfon gargoudabourch * handoro mafehkusu garboulette* hanka labutita dessen, bari iijkenakusu fema hanfi garbou*</td>
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Fulfulde terms

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>ablution bowl couscous steamer large cooking pot large water pot medium cooking pot pot lid</td>
<td>small cooking pot small water pot</td>
</tr>
<tr>
<td>* French-derived term</td>
<td>** Arabic-derived term</td>
</tr>
<tr>
<td>fereh</td>
<td>fotireh lachiri, fontireh nyjentereh fotireh nyjereh danamareh diyan, laundeh leysoudou fotireh mafeh undawdeh laundeh fotireh oro bounkou diyan</td>
</tr>
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</table>

** Table 7.2. Fulani Griot Potters’ Manufactured Items  

APPENDIX A: Villages in the Cercle of Jenne  
The following is a compilation of 171 villages and towns in the cercle of Jenn, along with certain of their characteristics relevant to this study. The population figures are from the 1976 census and were available at the office of the Commandant de Cercle in Jenne. The ethnic compositions were derived from a combination of data available at the cercle office, from information in Gallais 1967 ("La Repartition Ethnique," enclosed map), by interviewing a series of informants from Jenn6 and other parts of the cercle, and from my own observations. Villages are listed under their arrondissement, the latter appearing in upper case. Ethnic groups are listed in probable order of size, beginning with the largest.
Information in the other columns is based on my observations in 1981 and 1993, and on interviews with people from throughout the cercle. Everything in the appendix should be considered a working approximation. The presence or absence of resident blacksmiths and potters (B, P) is indicated with a plus (+) or minus (-) sign. The presence of masons (M) is indicated along with the abbreviation of their ethnonym. The masons responsible for building the mosque(s) in each village are also indicated by the town of their origin. Blanks indicate that I was not able to obtain information.

Abbreviations: Bambara (Bin), Bobo (Bb), Bozo (Bz), Dogon (D), Fulani (F), Marka (M), Mossi (Ms), RimaiBe (R), Somono (Sm), Songhai (S).

<table>
<thead>
<tr>
<th>Village</th>
<th>Pop.</th>
<th>Ethnicity</th>
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</tr>
<tr>
<td>Jenn Kera Syn</td>
<td>10275</td>
<td>MbzFRBmSmS BzM MBz MBzSm BzM Sm MBzM Sm MBzM Sm MBzR Bz RF</td>
</tr>
<tr>
<td>Koba</td>
<td>214620</td>
<td>R</td>
</tr>
<tr>
<td>Djera</td>
<td>2560459</td>
<td>R</td>
</tr>
<tr>
<td>Gomitogo</td>
<td>63650</td>
<td>R</td>
</tr>
<tr>
<td>Weraka</td>
<td>210147</td>
<td>R</td>
</tr>
<tr>
<td>Sirimou</td>
<td>258498</td>
<td>R</td>
</tr>
<tr>
<td>Sanouna</td>
<td>99351</td>
<td>R</td>
</tr>
<tr>
<td>MOUGNA</td>
<td>1562530</td>
<td>R</td>
</tr>
<tr>
<td>Mougna Bounga</td>
<td>9940</td>
<td>R</td>
</tr>
<tr>
<td>Dieou Kouima</td>
<td>216365</td>
<td>R</td>
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<tr>
<td>Pop.</td>
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<tr>
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<td>737193</td>
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</tr>
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<td>2743303</td>
<td>10301156</td>
<td>R</td>
</tr>
<tr>
<td>Ethicnicity</td>
<td></td>
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| MbzFRBmSmS          | BzM      | MBz MBzSm BzM Sm MBzM Sm MBzR Bz RF                                      |
| BzR                | R        |                                                                           |
| BzRF               | R        |                                                                           |
| BzMFR              | R        |                                                                           |
| RBmMF              | R        |                                                                           |
| BmMF               | R        |                                                                           |
| BmBzSmM            | BrnMFSmR | BmBzF BmMFBzSm MBzBm BmF                                                  |
| BmFBz              | BmFM     | BmBz                                                                      |
BmFMBzRBb MBz MBz MBz
B PM Mosque
+
+
+
+
+
+
+
+
+
+
+
+
+
+

BzM Bz Mk Mk Bz
Bz Bz
Bz
R
+ Bz
+
++ BmBz
- Bm
+ Bz
M
Bm
BmBz
Bin
- Bz
+
+
+

Jenn6 Kera Tako/Syn Gomitogo Gomitogo Gomitogo Weraka Sirimou/Gomitogo
Jenn6 Jenn6 Jenn6 Jenn6 Jenn6 Jenn6 Jenn6 Jenn& Jenn6 Jenn6 Jenn6 Jenn&
Jenn6 Jenn6
Diabolo Gomitogo Djimatogo
Mouga Kossouma Jenn6 Kouima

Village Tie
Sounga-Marka Bozola Sabara Sougouba
Woko
Souma Tanda
Mamadidaga Tabatou-Marka Kossouma Pana Soa
Debe Konda Yirma Payaba
Yebe Kondara
KONIO Konio Nogouna Ngola Keke Flako Minnda Nbiabougou Sirabougou
Soala Kou Tako
Bougoula Saron Tombo Kouara
SOFARA
Sofara Toumadi2m2
Tien Dougourani Madiama Nerekoro Siragourou Poromani Tonbonka
Tatia Nouna Tatia Bangassi Baratou Tornina Kountaraka Mansaba Kouonbaka
Diamonda Diaba
Diaraga Koulébala Tandiarna Montorobougou Biba Guitoveli
Pop 1730 1396
344 374 558 806
420 1098
1203 1157 2197 2377 289
871
425 919 1987
1681 807 630 1262
210 33 695
1542 922 625
492 1374 909 850
4852 495
85 1570
394 183 751 1550
190 372 796 689 1772 182
247 982
1207
762
499 174 205
Ethnicity MBZSM MBzBmFBb
BZM MBZ MBzBmF MBzBb MBZ MBzF MBZ MBz MBzSm MBZSM
MBzSmBm BzMSm BzM BmMBz BmFMBz
MBzSm
BmFM MBz BmF Brn
Bm BmF Bz BzmBrn BzMBm BmMF BmFM MBZ
NRBniMsD MF NR
FMFBb MBmF FMFBrn FRMBrn BrnMF BmM Bnim BzM MBZ
FRMD MF FM RF FRMBb FMF MsDBb MFR Brn MBzF FR
B P m mosque
+ + Bz Tie
M Tie
Bz Bozola
+ M Woko
- M Bozola
- Bz Woko
- Sounga
+ M Tenda
- Bz Woko
Bz Mougna
Bz Kossouma
* + Bz Pana
* + BzM Soa
Brn Mougna
* + Brn Mougna
Bz Mougna
Bmm Yebe + Bz Yebe
+ + M Yebe
M Jenné
MBZ Gomitogo
Brn Tako
Brn Jenné
Brn Tako
Tako
Bm Tako
BmR Tako
Bz Tako
Bz Tako
Bz Tako
Bm Bozola
M Saron Tombo
+ MBz Tako
+ BzM Sofara/Jenne
M Tako
M Tako
Tako
M Jenné
R Tako
M Tako
R Jenné
M Tako/Jenné
R Tako
M Tako
M Tako
Bz Baratou
+ Bz Sofara
Sofara Sofara Sofara
Bz Sofara
Bz Jenné
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<th>FREmM</th>
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<tr>
<td>M Sofara</td>
<td></td>
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</table>

Village Goundaka  
Abdoullkarimou Diengo Bambara Diengo Fulbe Koufà/Dakdian Dedougou  
Bambarawel Sounkalobougou Tondalca Dian=daka Koka  
Torokoro, Bounguel  
Perou Degou Gourel Baouri Bantina Nia-Moussa Nia-Ouro Kaka  
TAGA  
Taga  
Souman Bambara Souman Bozo Tiekorabougou Perta Waya Koumaga Togoue  
Diorobougou Yomi Kouonda Ndobougou  
Djiguïne Kounti Ndobougou Marebougou  
KOUAKOUROU  
Kouakourou  
Sare Amadou Diabi Mora Songode  
Makame Wandjire Mountou Tossa Gossiri Nouhoum-Bozo Daka-Dondetia Koa  
Ronde-Bana Diougouni Daka-Bibale Kolenze Abdoulmogoui Vakena Ouro-Ankora Pora-Somono Pora-Bozo Manga  
Pop.  
1284 282  
410 531 219 168 288  
417  
199 311  
582  
214 1135 300  
1274 422 279 303  
440 274 1138 398 1568 570  
140 256 1638 615 299 775  
2390 351  
466 1250 335  
405  
804 397  
354 527  
1820  
1944 280  
148  
2604  
60  
564 1590 675  
Ethnicity FREmM FRD Bm FR BZMF
MDFRBB BmR BniD MFD MFBzD FRM FRM RM RFD RFD RF RF RPM
FMR MBZF
BmMF Bm Bz BM BmM BrriR FRMBm FMBm BMFBZM
BmMFBz BMbZ BM BmMFBz MFBM
BMF BmDM
BzM SM
R
RF
R
R
RF FR RF RF RF Bz BzSM FR RF Bz BzSM
R
FR FR1)Bz SmBz Bz FBmR
B p M Mosque
R Sofara
Sofara
BM Sofara
Sofara
Sofara
R Sofara
Sofara
" Sofara
" Sofara
" Sofara
R Sofara
M Tako
M Sofara
Sofara
Sofara
Sofara
Sofara
" Sofara
" Jenné
Bz Sofara
M Taga
Bm Taga
Bz Taga
Bz Tiekorabougou
Jenné Jenné Taga
Diorobougou Bz Diorobougou
Diorobougou Bm. Diorobougou
Bm Ndobougou
F Djiguine
M Kounti
Diorobougou BM Diorobougou
++ Bz Kouakourou/Jenné
Village Meou Nantmore Lanaoue  
Saremale Toun Yonga Bozo Yonga Fulbe Toya  
Dietenga Kali  
Noungonotoye Daka-Takouna  
Daka-Dontori Samaye Toumi Diaka  
Pop. 165  
124 168  
153 585 393  
294  
408  
1085  
Ethnicity BmFRM RIF RBniM RMF  
R  
Bz  
FR RIF RF RF RFBz RFMBz RFMBz BzMBm BzMR  
B p M Mosque  
- Kouakourou  
- - Koualcourou  
- - Koualcourou  
- - Kouakourou  
- - Kouakourou  
- - Kouakourou  
- - - Koualcourou  
- - - Kolentze
Appendix B: Plans of Blacksmith and Goldsmith Forges

Key to Plans
A  Anvil embedded in log
B  Mudbricks
Be Bellows
Br  Patron's brother
BWP  Stationary water pot with broken rim
C  Charcoal (contained in bucket or basket)
CJ  Column--jennefrey
CM  Column--rectangular mold bricks (tubabufrey)
Cn  Clay cone
CS  Charcoal sack
F  Firepit
H  Hole in wood embedded in floor, to hold anvil
HN  House north
ho   House
LT  Loose tools
M  Mound of dirt
MA  Moveable anvil
MW  Moveable water pot
P  Mechanical pump
Pa  Patron of shop
ro  Road
S  Sandstone
Sc  Scrap metal
Sn  Sandy area for cooling metal
So  Teenage or adult son, or other apprentice
St  Storage
WP  Stationary water pot
Y  Young son of grandson (under 12 years)
yd  Yard
xxx Heavy concentration of slag, charcoal bits, and iron fragments

Y  Be  C. F
Br  to -
So
B. 1. Blacksmith forge of the Sounkoro family, senior smith Ibrahim Sounkoro. 
Jenné, Seymani, 1983.


B. 4. Blacksmith/carpentry shop of Babalay Touré, run by stepson Bamnoye 


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Abbreviations
AArts AA AAq AAMT
AE AJS ARA AS CA JAA JAH JFA UM WA


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