

A History of the Kalinga Ethnoarchaeological Project

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The Kalinga Ethnoarchaeological Project (KEP) is one of the longest running ethnoarchaeological projects in the world. Begun in 1973, project researchers have studied a wide variety of topics related to ceramics and documented changes in economic, social, and material culture spheres (Longacre, Skibo, and Stark 1991). This chapter describes the origins of the KEP and places this project within its historical and cultural contexts. We identify key research themes in project research and chart changing methodological emphases through time. Field and analytical studies continue through the KEP, and its researchers all owe a debt to William Longacre for beginning this research tradition. We begin by discussing the origins of the project.

Ceramic Sociology and the KEP

As other chapters in this volume illustrate, William Longacre was a member of a pioneering group of archaeologists who initiated research that would come to be known as the “ceramic sociology” movement (Longacre and Skibo 1994:6–7). Their precontact North American studies focused on the cultural transmission of stylistic microtraditions, with encouragement from Paul S. Martin (Deetz 1965, 1968; Hill 1970; Longacre 1964c, 1968, 1970a; Whallon 1968). All assumed that pottery making lay in the hands of women, that the transmission of technological knowledge moved through the female line (most likely from mother to daughter [e.g., Hill 1970; Longacre 1970a]), and that this pattern of cultural transmission produced

subtle but detectable design patterns that archaeologists could use to make inferences about sociopolitical organization.

Longacre's own work concentrated on ceramic variability at the Carter Ranch site (Longacre 1964c, 1968; 1974:57–60]. His dissertation specifically examined ceramic stylistic evidence for learning frameworks or vertical patterns of cultural transmission. If mothers taught daughters how to make pottery, as he assumed, then a society with matrilineal postmarital residence rules should contain geographically discrete clusters of stylistic microtraditions across a community. The young and ambitious group working with Longacre participated in an American Anthropological Association conference session in 1965 called "The Social Organization of Prehistoric Communities." The session's papers were subsequently published in a volume, *New Perspectives in Archeology* (Binford and Binford 1968), intended to change the course of archaeological inquiry.

Ceramic sociologists' pioneering research on ceramic style stimulated a generation of archaeological research worldwide that challenged archaeologists to think beyond culture-historical uses of style. This research also generated substantive methodological and theoretical critiques (Hegmon 1992:518–24; Plog 1983:126–33), including the criticism of the fundamental assumption that mothers teach daughters how to make and design pottery. Stanislawski (1973) for example, used research among the Hopi-Tewa to suggest that other modes of design-style transmission from one generation to the next were equally likely.

In response to these critiques of his work, William Longacre decided to undertake ceramic ethnoarchaeological research that explored the intergenerational transmission of style (Longacre and Skibo 1994:6–9), with a focus on ceramic decoration. The issue then became one of selecting an appropriate field location.

Selection of a Field Location

Because his archaeological research focused on the Puebloan Southwest, William Longacre looked first to that region for ethnoarchaeological analogues. He found little fit, however, between the tourist- and art-market orientation of contemporary Pueblo spe-

cialist potters and their prehistoric predecessors (Longacre and Skibo 1994:2). He then extended his search further afield to find analogous small-scale, tribal, and sedentary farming societies that might bear some parallels to late precontact Pueblo societies. Selecting a society with nonspecialist potters was essential, since southwestern archaeologists then believed that precontact Pueblo villages were largely autonomous and manufactured their own ceramics.

During this time, Edward Dozier, a noted ethnographer of Southwest and Philippine societies, was on the University of Arizona faculty. Trained at the University of Chicago a generation before Longacre, Dozier followed the long Chicago tradition of northern Philippine ethnography begun by Faye Cooper-Cole in 1909 as part of his work with the Field Museum of Natural History (Kramer 1998). Where Cole had worked among the Tingguian, Dozier chose to work among the Kalingas, a neighboring tribal minority group in the Philippine Cordillera Mountains (Dozier 1966, 1967; see figure 6.1).

Dozier suggested to Longacre that the Kalingas might offer a useful controlled comparison. First, the Kalingas were a “tribal” society, with relatively small permanent villages of about 250–600 people (Longacre 1981:50). Second, many Kalinga women made and used pottery on a household basis, rather than for trade, during the 1960s. Finally, the Kalingas had been the subject of previous ethnographic study, which provided a cultural context for long-term ethnoarchaeological research with the Kalingas (Longacre 1974:61–62; 1981:50–51). The following section summarizes extant ethnographic research on the Kalingas published before, during, and after the initiation of the KEP.

Kalinga in Ethnohistoric and Ethnographic Perspective

The term *Kalinga*, meaning enemy, may have been coined by fearful Ibanag speakers (Keesing 1962:221); a Bontoc origin for the term has also been suggested (Scott 1969:63). If any consensus exists on the term “Kalinga,” it is that the Kalingas did not use this term until quite recently and instead reckoned affiliation by drainage system (Dozier 1966:240; Keesing 1962:221–24). The use of broad, linguistically based

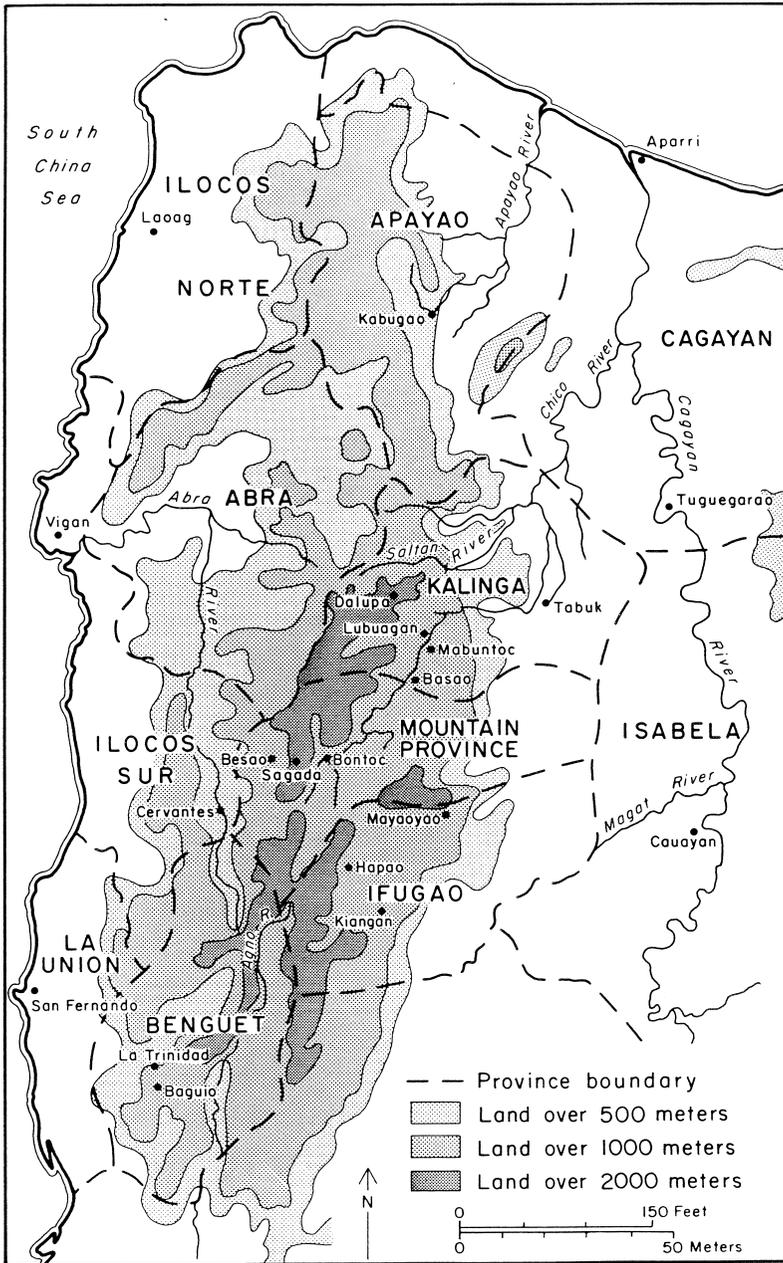


FIGURE 6.1 A topographic map of the northern Philippines. The Kalinga research area is located in the Cordillera Mountains and includes Dalupa. (From the *Journal of Archaeological Method and Theory* 7:295–331; reproduced with the kind permission of Springer Science and Business Media)

ethnic groupings (e.g., Kalinga, Ifugao, or Bontoc) began with Spanish colonization, and the American colonial Bureau of Non-Christian Tribes institutionalized the ethnic groups (Lewis 1991). This establishment of political provinces generated a new “tribal” consciousness (Scott 1969:165), and subsequent incursions by the Philippine government have strengthened this sentiment (De Raedt 1991:356; Lawless 1978b:155–56).

Kalinga Ethnohistory

Mountain people were called Ygorrotes, and their area was renowned for its rich gold mines (Tegengren 1964). The earliest external contact with the Kalinga Ygorrotes began with a Spanish *encomienda* (land grant) survey in 1591 of the Tanudan area, which carried the right to levy tribute and labor service from the resident population (Wernstedt and Spencer 1967:123). The Spaniards labeled one population they encountered in 1591 as Lobo (Keesing 1962:224); that community today is located in the Kalinga municipality of Tanudan. In 1689, Spanish missionaries formally established their presence in Kalinga at the Tuga Catholic Church in what is now the Tabuk municipality (Almazan 1978:1).

Various attempts at “pacification” (missionization, mining, and trade) continued through the nineteenth century (Dozier 1966:28–36), with the primary goal of obtaining access to gold mines in the area and to the tobacco produced by its inhabitants (Scott 1977:4). Yet the Spanish consistently met with intense resistance from all highland native populations, including Kalingas (Scott 1970:707). Mountain groups were also hostile toward Philippine lowlanders, who participated with the Spaniards in punitive expeditions in the highlands (Jenista 1987:186). It was only in the 1880s, with the introduction of the bolt-action repeating rifle, that the Spaniards established permanent garrisons in the area (Scott 1977:274). The brief Philippine rule between 1896 and 1900 effected no better relations between highlanders and lowlanders: Philippine soldiers who made their way through the mountains left a trail behind them of pillage and plunder (Joaquin 1986; Kane 1938).

Following the Philippine-American War in 1900, the United States established the Mountain Province as a political unit in 1908

(Fry 1983). American administrators viewed the Kalingas as intelligent but rather intractable (Worcester 1914), and relied upon traditional social institutions to encourage Kalinga participation in the colonizing process (Magannon 1984:254; Wilson 1956). American colonial administration constructed roads that opened highland-lowland trade networks, established schools, and built medical facilities; headhunting and tribal warfare waned under American rule (De Raedt 1991:363). Japanese troops entered the area during World War II, and Kalingas loyal to American forces resumed headhunting against Japanese soldiers (Dozier 1966:205).

Post-World War II Kalinga society lacked the strong state intervention of the American colonial administration, and the Philippine government policy of benign neglect affected local politics and social life. Tribal conflicts flared sporadically (De Raedt 1991:363; Dozier 1966:197-215; Fürer-Haimendorf 1970), roads deteriorated, and outside penetration in the Kalinga area consisted of sporadic, poorly planned capitalist ventures rather than government-sponsored programs. The ever-increasing incursion of outside interests, particularly through commercial mining, logging, and hydroelectricification, has affected cultural change and ecological degradation in the Kalinga area (Lawless 1978a; Magannon 1984:258). Lowland Ilocanos have also settled in areas previously dominated by Kalinga populations (De Raedt 1991:358), including the provincial capital of Tabuk, and Kalingas experience strong pressure to acculturate to lowland Ilocano practices.

Kalinga Ethnography

Anthropological research on the Kalingas has been published for more than fifty years, and the corpus of Kalinga ethnography is now substantial. Research on Kalinga social and economic structure, both past and present, is abundant and detailed (Bacdayan 1967; Barton 1930, 1949; Billiet 1935; De Raedt 1989, 1991, 1996; Eggan 1954; Scott 1958, 1960; Sugguiyao and Sugguiyao 1964; Fürer-Haimendorf 1970). Scholars have also written about how others have written about the Kalingas (MacDonald 1978; Norcini 1991; Takaki 1969).

Political Structure and Economics

Kalingas, considered a cultural minority by the Philippine government, are not typical “peasants” like their lowland neighbors but instead still live and function on the peripheries of the nation-state. Ethnographers have traditionally assumed that Kalinga society lacks ascribed positions of leadership and that status is defined primarily through achievements in battle (e.g., Dozier 1966; Scott 1979). Economic stratification of some form has a long tradition in Kalinga and might have begun with Spanish tribute demands in the late nineteenth century (see Scott 1977:291). As work in the Pasil municipality demonstrates (Lawless 1977, 1978b; Stark 1993, 1995), these economic differences continue to grow. In fact, a new wealthy class has emerged among college graduates and those employed by the government. These economic trends also characterize other groups in the Cordillera Central, including Ifugao (Eder 1982:110–11) and Bontoc (Voss 1987).

Kalinga leadership institutions exhibit significant temporal stability. Leaders (*pangats*) continue to resolve public disputes, negotiate border problems with neighboring villages, and help maintain peace pacts (Bacdayan 1967; Barton 1949; Tadaoan 1954). A lowland overlay of governmental institutions has had remarkably little impact on the adjudication of intra- and intercommunity disputes and in the operation of traditional social and economic structures.

The well-codified system of custom law that revolves around a peace pact, or *bodong*, system remains pivotal in Kalinga society (Bacdayan 1967, 1969; Benedito 1994). Peace pacts link villages and areas to one another through agreements that end tribal wars caused by blood feuding, establish peaceful areas for trade and travel, ensure justice when crimes are committed by members of the peace pact holding units, and establish alliances that permit intermarriages. Peace pacts may be maintained for many decades; individual peace pact holders pass their responsibility down to the next generation.

Kalinga Subsistence

Pasil Kalinga subsistence today still relies primarily on intensive farming; goods still circulate through barter as well as through village

stores or itinerant vendors. Swidden farming and arboriculture are secondary specialties. Coffee cultivation has a deep history (Scott 1977:7): the American administration also encouraged coffee production throughout the Cordillera highlands (Keesing and Keesing 1934; Scott 1969:64; Wilson 1956).

Political and economic changes in the area (e.g., Lawless 1977, 1978a, 1978b, 1994; Stark 1991b) have substantially affected Kalinga economics and subsistence. Deforestation and mining into the 1980s reduced the availability of game and riverine resources (see Lawless 1973; 1975:30). More recently, water buffaloes have grown increasingly scarce in the Kalinga region since an epidemic in the 1990s depleted the local populations.

Despite the impact of recent external influences on Kalinga life, a traditional barter economy continues to thrive. Barter equivalents are still essential to daily activities, and goods from village stores and “walking stores” (i.e., itinerant female vendors) are obtained through barter. Property, like houses or rice fields, is still reckoned in water buffalo or gold earring media; daily transactions for foodstuffs—including those in local village “stores”—often involve barter rather than sale.

Political Traditions and Interregional Interaction

The geographic focus of the KEP lies in southern Kalinga, where substantial previous ethnographic research has concentrated (e.g., Dozier 1966, 1967; Garming 1981, 1984; Lawless 1973, 1975, 1977, 1979, 1980, 1983, 1985, 1987, 1988, 1990, 1993, 1994; Magannon 1972, 1974, 1980, 1984, 1985; Takaki 1977, 1984), in part because this region is considered the most conservative within Kalinga. Southern Kalingas live in areas flanking the middle Chico River valley and its tributaries (Dozier 1966:9, 53; Lawless 1973:85). Administratively speaking, residents of four Kalinga provincial municipalities (Lubuagan, Pasil, Tinglayan, and western Tanudan) and of the Natonin municipality of Bontoc province are thus southern Kalingas (Scott 1958, 1960).

The Pasil municipality, which lies in the northern portion of southern Kalinga, became an autonomous political unit in 1968. The Pasil municipality consisted of fifteen communities with a population

of almost seven thousand residents in 1980 (Almazan 1985:6). The municipality is ethnically homogeneous: in the late 1980s, 97 percent of the residents were Kalingas, with small populations of Ilocano and Tagalog (Stark 1993).

Kalinga settlement is defined by a series of geographic units, from the provincial to the local levels (Stark 1999:35–38). At the local level, each “region” (following Takaki 1977) involves individual settlements or settlement clusters that collectively negotiate and maintain peace pacts with other like units (Dozier 1966; Takaki 1977:27–30, 1984). Regional population size varies, ranging from a few hundred to over one thousand individuals. Kalingas commonly use the term “barrio” to refer to regions, following Spanish colonial custom.

Pasil Kalingas divide the core communities into two distinct sociopolitical segments on the basis of drainage and elevation (fig. 6.2). Upper Pasil consists of the greater Guina-ang community (Bagtayan, Galdang, Pogong [Pugong], and Malucsad), Dangtalan, and the western communities of Batong Buhay and Colayo. Lower Pasil includes Dalupa, Ableg, Magsilay, Balenciagao, and the settlements within Cagaluan. This Upper-Lower Pasil distinction has social, political, and economic implications (Aronson, Skibo, and Stark 1991, 1994; Lawless 1977:105–06; Longacre and Stark 1992; Stark, Bishop, and Miksa 2000).

History of the KEP

In July 1973, William Longacre took a leave from directing the excavation of Grasshopper Pueblo, then the site of the University of Arizona’s archaeological field school, and conducted a several-week feasibility study in the Philippines. After his arrival in Kalinga, he spent a week in the Pasil municipality and divided his time between Dangtalan (the site of his future research) and neighboring villages. The Kalingas encouraged him to return to the region to study pottery, and he returned to the United States to design his research.

Funding from the National Science Foundation enabled William Longacre to return to the Philippines in 1975 for twelve months of research in the village of Dangtalan. Two central goals structured his research: (1) to develop fine scale measures for recording stylistic variability in Kalinga pottery; and (2) to understand and record

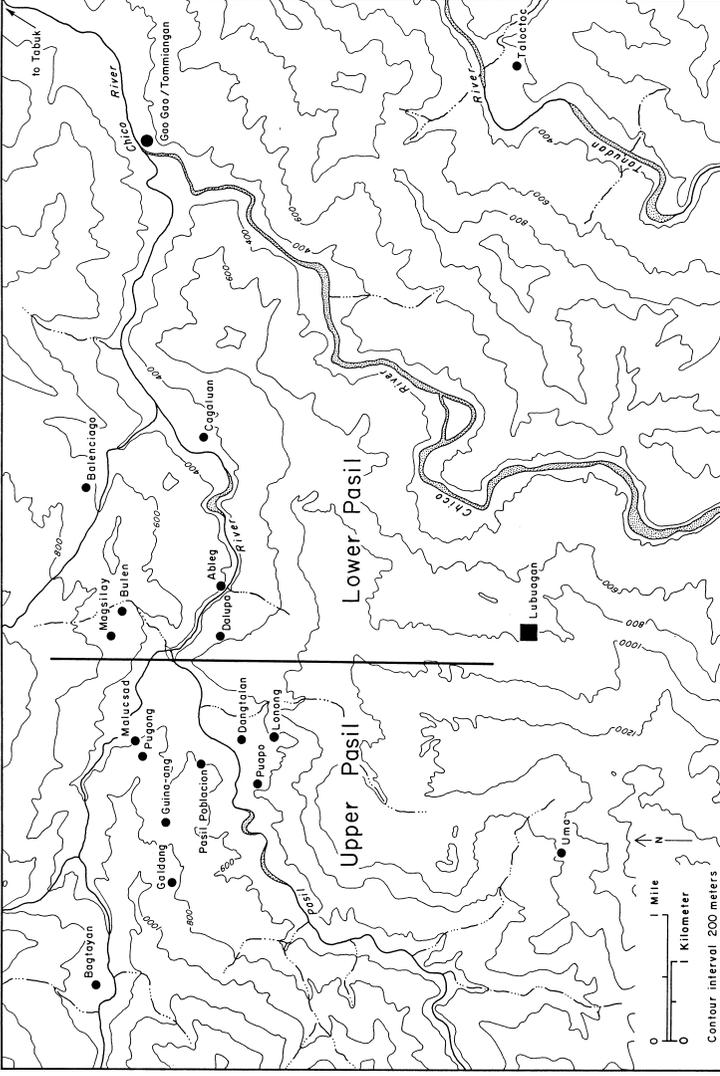


FIGURE 6.2 The distinction between Upper Pasil and Lower Pasil. (From the *Journal of Archaeological Method and Theory* 7:295–331; reproduced with the kind permission of Springer Science and Business Media)

the social context of pottery making (Longacre 1974:66). Fieldwork involved several data-collection techniques, in addition to participant observation: (1) a mapping project of the pottery-making villages of Dangtalan and Dalupa; (2) a household census in Dangtalan and Dalupa to determine exact genealogical relationships between and among households, and between potters; and (3) the identification of select groups of related potters and unrelated potters in the same work groups to analyze the degree of stylistic variability in their vessels with respect to their social and biological relationships. These data sources provided rich information not only on stylistic patterning but also on ceramic use life (Longacre 1981) and — to a more limited extent — on pottery distribution patterns.

This initial phase of the KEP revealed that learning frameworks were far more complex than the ceramic sociologists had assumed (Graves 1981, 1985; Longacre and Skibo 1994:8). The primary lesson learned from the 1975–1976 Kalinga research was that archaeologists who make such inferential demands of the archaeological record must first establish a set of connections (or correlates) between material culture and human behavior. The questions that the ceramic sociologists were asking were, in retrospect, impossible to answer with their extant inferential tools. Longacre's ethnoarchaeological research illustrated this research strategy's usefulness in refining archaeological method and theory.

If learning frameworks and matrilineal residence patterns at Carter Ranch and Broken K did not create the patterning in the micro-traditions, then what did? By the mid-1970s Longacre was influenced by behavioral archaeology (Reid, Schiffer, and Rathje 1975; Schiffer 1976), which originated at his own University of Arizona. Longacre's 1975–1976 field research on pottery design styles underscored the importance of understanding cultural formation processes that affected archaeological patterning, and prompted him to incorporate research on these processes into the project. Consequently, Longacre initiated a study of household pottery use life, breakage, and disposal that involved not only documentation of behaviors but also test excavations of midden areas in Dangtalan's satellite community of Puapo. This work was intended to develop more fine-grained models for human behavior using archaeological ceramics.

The 1979–1980 Field Season

At approximately the time of William Longacre's 1975–1976 field season, the Philippine government attempted to launch a massive hydroelectric development project along the Chico River dams and its tributaries in the Kalinga area (Cariño 1980:2). Construction of the Chico IV dam would have entailed the relocation of ten thousand people and the submersion of two settlements in the Pasil municipality, where Longacre worked. Government efforts to begin dam construction escalated tensions with Kalinga and provoked the incursion of Philippine military, federal employees, and communist guerrillas (New People's Army) into the area (Drucker 1988; Rood 1991; Winnacker 1979).

William Longacre planned to return to the Pasil municipality for a second field season in 1979–1980 to continue his stylistic studies through repeated pottery censuses and additional research on Kalinga potters. The Philippine government's support of the Chico River dam project by that time had generated widespread political instability in the region. The Pasil municipality was a hotbed of communist insurgent activity by the New People's Army, which drew the Philippine military. A garrison was briefly established east of the Pasil municipality in the Gao Gao and Tommiangan community.

Conflict between the New People's Army and Philippine military disrupted local peace pacts, and Kalinga friends advised Longacre not to undertake fieldwork at that time. Instead, two Kalinga colleagues (Cristina Tima and Rosalina Busog) carried out the 1979–1980 pottery census and provided data to William Longacre. They were able to identify pots in households that had been recorded in 1975–1976, to add new vessels in the inventory, and to account for pots that had disappeared from household assemblages. This work created a unique longitudinal database that could be used to better understand pottery use life, which is a critical variable in virtually all inferences about human behavior derived from prehistoric ceramics (Longacre 1985).

Pottery census data from the 1975–1976 and 1979–1980 field seasons also yielded intriguing evidence on the organization of Kalinga ceramic production. Michael Graves's (1991b) analysis of this census information suggested that only some Dangtalan households had active resident potters, that the rate of pottery production for ex-

change escalated between 1975 and 1980, and that most Dangtalan households no longer produced pottery. It also suggested that some Dangtalan women were making and exchanging pottery to supplement their households' income.

The 1987–1988 Field Season

The 1987–1988 project represented a radical departure from Longacre's earlier Kalinga research. Although he continued his household ceramic inventory research in Dangtalan, this field season Longacre brought with him a team of graduate students from the University of Arizona, the University of the Philippines, and staff archaeologists from the National Museum of the Philippines. Substantial changes had occurred in the Pasil ceramic traditions during the project's eleven-year hiatus, including a steep decline in Dangtalan potters' manufacturing activity, and the acceleration of pottery manufacture in Dalupa (Stark 1991a; Stark and Longacre 1993). Only a few Dangtalan potters continued to manufacture pottery regularly, because alternative economic sources (mining in particular) in the late 1970s and early 1980s had lessened their need to supplement household income through ceramic manufacture.

The 1987–1988 KEP members were based in three Pasil communities from October 1987 to June 1988. Graduate research was characterized by eclecticism rather than by a single unified framework, perhaps following Paul Martin's mentoring philosophy that Longacre knew from his graduate student days. At various points in the field season, as many as eleven project members pursued various research projects in six different communities throughout the municipality. Three communities, Dangtalan, Dalupa and Guina-ang, formed the core focus of project research, and project members lived and worked within these communities. More limited fieldwork was also undertaken in three additional Pasil villages (Cagaluan, Malucsad, and Pogong) under the direction of Miriam Stark and Brian Trostel.

Part of the 1987–1988 Kalinga project research concentrated on aspects of ceramic production. Several kinds of information, using identical data-collection strategies and survey instruments, were collected from all three principal communities: (1) a village map; (2) a household pottery census; and (3) a household economic profile.

Household pottery censuses and village maps were produced for Malucsad and Pogong, but Cagaluan elders requested that the project refrain from mapping their community because of their previous friction with the Philippine government.

Data from the household pottery censuses extended the project focus on stylistic variability and cultural transmission by including not only ceramic media (Stark and Longacre 1993; Stark 1999) but also basketry (Silvestre 1994, 2000). Project members also followed Longacre's early ceramic studies (Longacre 1981) with research on technological aspects of the production sequence (Aronson, Skibo, and Stark 1991, 1994; Stark, Bishop, and Miksa 2000) and on production scale and organization. Monitoring daily ceramic production rates in Dalupa provided information on scale and organization (Stark 1991a, 1995).

Some research also focused on ceramic standardization (Kvamme, Stark, and Longacre 1996; Longacre, Kvamme, and Kobayashi 1988). These 1987–1988 data were then compared against data from 1975–1976 to study potential changes in product standardization that might have accompanied the organizational shift to part-time specialization. Cultural anthropologists working in southern Kalinga had previously documented sources of, and factors behind, changes in the region (e.g., Lawless 1973, 1978a, 1978b). Accordingly, project members examined historical changes as reflected in the ceramic production and use systems (Stark and Longacre 1993; Skibo 1994; Stark 1991a, 1991b). Since Longacre's 1975–1976 field season, Dalupa potters had developed an entirely new repertoire of decorative ceramics intended for sale rather than barter, and many women had become part-time specialists (Stark 1993, 1995).

Other research in 1987–1988 concentrated on aspects of ceramic distribution with a focus on Dalupa, the more active ceramic production village (Stark 1991b, 1994). Circulation mechanisms were documented using pottery transaction logs and through a series of structured surveys administered to Dalupa and Dangtalan potters to document the range of pottery exchange networks (Stark 1993). These techniques signified a significant expansion in Dalupa potters' ceramic distributional network since Longacre's 1975–1976 field season (Stark 1994), which paralleled trends identified by Graves (1991b) in his study of previous Dangtalan data. Related research explored

the economic and organizational implications of part-time specialization in Dalupa (Stark 1995).

Studies of the Dalupa distribution helped researchers identify changing patterns of exchange relationships as potters moved beyond the boundaries of their own river valley and closest personal relationships (Stark 1992). This research, however, also illuminated material manifestations of social boundaries that complemented previous work on scalar aspects of Kalinga social boundaries (Longacre 1991) and other work incorporating ceramic design (Graves 1994a, 1994b). Such research on social boundaries, and how such boundaries might be reflected in ceramic forms among Kalinga potters, provided insights on archaeological patterning (Stark 1998b). Various studies focused on choices during the manufacturing process that generated formal variability, from selection of raw materials (Stark, Bishop, and Miksa 2000) to vessel-forming techniques (Stark 1999).

Ceramic consumption formed another basic component of field research through the 1987–1988 KEP. Research in Guina-ang, a community of pottery consumers rather than pottery producers, concentrated on ceramic function (Kobayashi 1994, 1996; Skibo 1990, 1992b). Much of this research merged ethnoarchaeological and experimental approaches in what Longacre (1992) calls a “perfect marriage.” One aspect of this research linked pottery-use activities with use-alteration traces (absorbed residues, carbon deposits, and attrition) to establish archaeological correlates. These findings were also combined with experimentation to better understand processes of use alteration such as the deposition of carbon or the absorption of organic residues (Skibo 1992b).

Research was undertaken on consumer preferences regarding Dangtalan versus Dalupa pottery by adding data from the pottery-consuming community of Guina-ang (Aronson, Skibo, and Stark 1991, 1994). Researchers combined field data with experimental archaeological research on performance characteristics to examine why Guina-ang households had higher frequencies of Dangtalan than Dalupa pottery, when most Dangtalan potters were no longer active in the craft. The answer lay in a complex set of factors that did not privilege functional concerns (vessel strength) over social relations. Pottery census data from two pottery consumer communities of Pogong and Malucsad were also incorporated into a study of intravalley pat-

terns in ceramic consumption (Longacre and Stark 1992). Findings from this study suggested that the representation of Dangtalan versus Dalupa pots in two Kalinga consumer villages reflected broader political and social alliances.

Other research focused on economic and nutritional anthropology. Brian Trostel examined the relationship between pottery consumption and household wealth to test the strength of ceramics as a proxy indicator in archaeological assemblages (Trostel 1989, 1994). This study, based in Dangtalan, combined information from economic questionnaires, inheritance patterns, and architectural features that are closely related to household wealth. Trostel found a strong correlation between household size and both the number and the average size of ceramic vessels (1994:223). Caren Quimpo-Casteneda (1990) examined traditional food taboos of pregnant and lactating Kalinga women.

Part of the 1987–1988 project research continued to focus on ceramic assemblage formation and particularly on ceramic use life. Using pottery censuses from the three field seasons, demographic data from Dangtalan, and ceramic breakage data collected in 1987–1988, Tani (1994) examined the relationship between household size and vessel breakage rates. In one study, Neupert and Longacre (1994) examined methodological issues related to the study of ceramic assemblage formation. In another, by comparing use-life data in Kalinga household ceramic inventories since 1975 against ceramic breakage data, Tani and Longacre (1999) identified biases that affect use-life estimates and recommended revisions. Although a substantial literature on the nature and quality of informant-derived information existed in cultural anthropology (e.g., Bernard et al. 1984; Nachman 1984), little systematic research had previously been conducted to investigate the quality or context of informant-derived data that are incorporated into most ethnoarchaeological models (but see Schiffer 1978).

The 2001 Field Season

Analytical research on the Kalinga collections (now housed at the Arizona State Museum in Tucson) has continued since 1987 (e.g., Stark, Bishop, and Miksa 2000), and several project members have

visited Kalinga at least once since that time. However, the KEP has not launched another large-scale field season since 1987. Fieldwork has, however, continued through the doctoral research of Margaret Beck (2003). Beck's February–July 2001 field season in Dalupa concentrated on formation process issues and ceramic deposition (Beck and Hill 2004; this vol.). This work combined ethnoarchaeological fieldwork with archaeological excavations in Dalupa middens to examine the relationship between midden ceramics and household assemblages.

From Carter Ranch to KEP and Beyond

What William Longacre instigated in his efforts to refine interpretations from the Carter Ranch and Broken K studies blossomed into a multifaceted ethnoarchaeological research program. Archaeologists working globally have incorporated findings from the KEP using Kalinga research methodologies (Arthur 1997, 2002; London 1991) or comparative data generated by project members. This is particularly clear in formation processes research. Studies of pottery use life have frequently incorporated Kalinga data into comparative studies of use life (Nelson 1991; Shott 1996), as has accumulations research (Varien and Mills 1997; Varien and Potter 1997). Kalinga research on pottery use-alteration has been explored in detail by other ethnoarchaeologists (Arthur 2000, 2003; Beck and Hill 2004), and applied to prehistoric archaeological collections (Arthur 2000, 2001; Beck and Hill 2004; Reid 1990; Skibo and Blinman 1999).

Models and datasets from the KEP have also been used to explore the organization of ceramic production and ceramic distribution. Several studies have incorporated Kalinga metric morphological datasets (Crown 1995; Junker 1999) to examine these issues for the prehistoric North American Southwest. The Kalinga ceramic production and distribution system has also served as a comparative model for understanding late prehistoric and early historic period Southeast Asia (White and Pigott 1996).

The KEP members have now explored diverse archaeologically relevant issues through fieldwork and the use of multiple analytical techniques. Just as archaeological methods and interests have changed in the last thirty years, so too have the topics investigated

through the KEP. Its breadth of research focus crosscuts theoretical frameworks. The project's longitudinal nature, caused as much by historical accident as by design, provides a less distorted lens for archaeologists studying material culture than do the short-term studies that characterize much of the extant ethnoarchaeological literature (David and Kramer 2001:50–51). Many American and international students of William Longacre have participated directly or indirectly in the KEP, and we are grateful for his support and guidance through our research. The project generated insights that have contributed to the realm of archaeological interpretation, and the broader community of archaeologists has thus also benefited from his work.

ACKNOWLEDGMENTS

The KEP has been supported by grants from the National Science Foundation (SOC 75-19006, BNS 87-10275, BNS 89-01797, BNS 89-15359, BCS-0002904), by Sigma Xi (the Scientific Research Society), and by the Smithsonian Institution postdoctoral fellowship program. Our research since 1975 was accomplished through the kind and patient assistance of many Kalinga colleagues: Roberto and Cristina Tima, Rosalina Busog, Bini Bulawit, Brenda Dumayag, Avelina Baguiyon, and Josie Alwod (Dangtalan); Josephine Bommogas, Amy Awing, Narcissa Wagawag, Vicki Cayag, Reselda Cayag, Margelyn Pinading, Rebecca Pinading, and Aggie Awing (Dalupa); Amboy Lingbawan, Joseph Abacan, Nancy and Edita Sugao, Judith Sagayo, Iya Lubuagon, Thomasa Dawagon, and John and Delia Sawil (Guina-ang); and Ben Blaza (Ableg). We also extend our thanks for the hospitality of our Kalinga friends: Roberto and Cristina Tima (Dangtalan), Lucas and Apinan Gayudan (Dangtalan), Roberto and Pia Awing (Dalupa), Osias and Josephine Bommogas (Dalupa) and Solono Lawtawan (Guina-ang). We also thank the archaeology division of the National Museum of the Philippines, and the faculty and students of the Department of Anthropology at the University of the Philippines.