

Neolithic Cultural Hybridity: Social Entanglements and the Development of Hybrid Culture in the Western Mediterranean

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Abstract

With the advent and spread of food production technology, Mediterranean populations altered their lifeways, individually adapting to local environments in order to best accommodate the cultigens they would come to rely upon. The subsequent changes in subsistence patterns, domestic architecture, and economic systems characterize the archaeologically recognized transition from Mesolithic to Neolithic culture among indigenous populations. Various explanations accounting for the dispersal and adoption of food production technologies have been posited, including demic diffusion. The purpose of this paper is not to support or negate the demic diffusion model accounting for the spread of agriculture technology, but rather to examine Sicilian and Southern Italian Mesolithic and Neolithic culture via postcolonial theoretical models. Variation in domestic architecture, the adoption of domesticates and the shift to pastoralism all provide evidence supporting the development of Neolithic hybrid cultural entanglements based on elements of Mesolithic lifeways.

Introduction

Southern Italy and Sicily were vital geographic components for the spread of food production technology as they provided a terrestrial means over which Neolithic lifeways were conveyed to both Europe and the western Mediterranean (Malone 2003). Employing postcolonial models to examine the transition from foraging to food production, and the contemporaneous variation in architecture and material culture, reveals the

dynamic cultural transformation associated with demic diffusion.

The spread of food production techniques from the Levant throughout the Mediterranean basin and into Europe has been characterized as a series of island colonization episodes (Bar-Yosef 2004; Zvelebil 2001). Populations possessing knowledge of food production spread to uninhabited regions during the Neolithic. Crete, for instance, exhibits evidence for migration and the spread of food production techniques during the Neolithic. The absence of archaeological evidence for any populations on Crete prior to Neolithic Knossos suggests extant Neolithic populations dispersed from continental southern Europe to previously uninhabited islands, bringing food production techniques with them (Colledge et al. 2004). The introduction of food production technology to regions inhabited by Mesolithic forager populations occurred via such a population dispersal. With time, the indigenous forager cultures became assimilated within the food producing cultures, exhibiting elements of the developing Neolithic lifeways. A postcolonial model is often employed in the interpretation of historically documented colonial situations, but can it also be appropriately applied to such prehistoric population dispersals?

Postcolonial models account for variation in historically documented indigenous lifeways due to interaction with and incorporation of external cultural stimuli, often characterized as a colonial force transforming the cultural identities of anyone involved (Stein 2005). Despite the absence of epigraphic data associated with Mesolithic and Neolithic culture, architectural construction methods, settlement types, economic relations and subsistence strategies provide evidence of the transmission of foreign cultural elements. The intermingling of foreign and indigenous cultural elements sometimes resulted in the development of hybrid culture. Hybrid cultural forms tend to arise due to an acceptance of colonial norms subject to indigenous interpretation (van Dommelen 2006). The dynamic cultural entanglements of Neolithic southern Italy and Sicily

resulted in hybrid cultures. These newly synthesized cultures can be examined within a postcolonial framework based on archaeological evidence of domestic architecture and the adoption of food producing techniques.

Dietler (2005) emphasizes the role of material culture as an instrument of colonialism, providing an association between consumption and social identification. The examination of cultural contact as a consequence of population migration or diffusion too often results in interpretations of material culture affiliated with 'one' or the 'other', leading to polarized theories based on modern misconceptions. Polarized interpretations misconstrue cultural relativity, ignoring subtle variations based on cultural adaptations as indigenous interpretations of the 'other'.

The acknowledgement of cultural hybrids breaks dualist conceptions of colonial situations where distinctions between colonizers and colonized exist, and instead focus on the "in-betweenness" of people (van Dommelen 2006: 136). In the period during which hybrid forms were produced, indigenous Southern Italian and Sicilian identities began to undergo significant changes due to external cultural influences introduced through the demic diffusion of eastern cultures throughout the west-central Mediterranean. An examination of the production of such hybrid forms should include an analysis of consumption patterns, which are subject to complex local interpretation of the colonial process (Dietler 2005). Hybrid lifeways varied significantly over great distances because of varying degrees of social acceptance integrating aspects of the foreign culture encountered. Such significant variation, evident in the archaeological record, can be interpreted as evidence of locally employed adaptive strategies.

This examination of the development of cultural hybrids focuses on the shift from foraging to food production in the Mesolithic to Neolithic west-central Mediterranean with

particular emphasis on the Grotta dell'Uzzo in Sicily (TP) as a case study. Variables discussed include the modification of domestic architectural styles, settlement patterns, economy, and subsistence strategies. These variables will be explored in order to demonstrate the incorporation of new technologies among the lifeways of Southern Italian and Sicilian populations. Finally, the development and adoption of domesticates in Southern Italy and Sicily will be compared to similar developments from central and northern Italian sites. This cross-cultural and spatially varied comparison of social responses to food production technology exhibits the dynamic nature of micro-regional incorporation of new forms of subsistence strategies within native lifeways.

Site Data

Grotta dell'Uzzo is an open air rock shelter situated along the northwest coast of Sicily near modern Scopello, within the Trapani district. The earliest cultural remains at Uzzo are attributed to the Final Epigravettian (Upper Paleolithic) period (c. 10370 BC) (Bonfiglio and Piperno 1996). Scrapers, truncated backed forms and points are present within the most archaic contexts at Uzzo, while geometrics and microliths remain absent (Leighton 1999). The overwhelming majority of evidence for habitation at Uzzo dates from the Mesolithic through Neolithic periods (c. 7500 - 5500 BC) (Tusa 1996). During this transitional period, artifacts, architecture, and inhumation graves attest to consistent, uninterrupted cultural use of the rock shelter.

Mesolithic Data

Mesolithic habitation in Italy has been characterized as a modification of lifeways dating from the Final Epigravettian (Upper Paleolithic) period (Leighton 1999). Hunting, fishing and gathering wild plants were major components of Mesolithic Sicilian subsistence strategies. The occupation of coastal rock shelters during both the Mesolithic and Neolithic periods is a phenomenon common to the Western Mediterranean, and may account for the large marine based

component of subsistence strategies of the time (Rowley-Barker 2005; Conway 1995). Archaeological remains from Mesolithic Western Sicily are scant, however the rock shelter at the Grotta dell'Uzzo has yielded *in situ* Mesolithic paleoarchaeobotanical remains. Use of microliths at Uzzo expanded during the Mesolithic, with a diversification of both simple and retouched forms, as well as the incorporation of bone to the available toolkit (Leighton 1999).

The Mesolithic foragers at Uzzo utilized a diverse array of locally available food resources, including terrestrial flora, such as barley and legumes (Barker 2005). Wild deer (*Cervus elaphus*), various boar, pig, and fox species attest to the diversity of large and medium game species hunted (Whittle 1985; Leighton 1999). Marine resources were also utilized including 13 different species of shellfish (including *Patella ferruginea*, *P. caerulea* and *P. rustica*), along with numerous fish species, predominantly Grouper (*Epinephelus sp.*), and several mammals, such as whale (*Globicephala melaena* and *Balaenoptera/Physeter*), seal (*Monachus monachus*) and dolphin (*Gramphus griseus* and *Delphinus delphis*) (Leighton 1999).

Varied subsistence patterns employed at Uzzo, similar to contemporaneous central Mediterranean sites, indicate that Mesolithic Western Sicilian cultures gathered local grains, hunted large prey such as deer, fished coastal resources for inshore species, gathered shellfish and scavenged beached carcasses of deep water species. Evidence for the consumption of nonagricultural foods among Mesolithic Sicilian populations can also be observed in skeletal remains. High rates of dental caries may have resulted from the consumption of honey or fruits such as dates or figs, attesting to the diverse range of the Mesolithic diet (Larsen 1995).

In comparison to southern Italian and Sicilian sites, Northern Italian Mesolithic sites exhibit similar faunal

assemblages composed of indigenous species, either hunted or trapped, consumed for their nutritional value. Rock shelters from the Adige valley contained evidence of butchered red and roe deer, ibex, chamois, beaver, pine marten, badger, brown bear and wolf (Clark 2000). The diversity of faunal species pursued by Mesolithic hunters is representative of the various species available within a given geographic locus, potentially exhibiting an opportunistic hunting strategy, incorporating both large and small mammals into the dietary regimen.

Examination of Mesolithic hunter-gatherers from sites such as Colbricon and Pradestel in Northern Italy (figure 1) have revealed a seasonal pattern of high altitude hunting for species such as red deer, ibex and chamois, which were hunted from late spring to late summer with habitation in low altitude cave sites from autumn through early spring (Clark 2000).



Figure 1: Locations of Grotta Dell'Uzzo, Pradestel and Colbricon

Mesolithic Grotta dell'Uzzo does not exhibit such a seasonal pattern. The wide array of food resources available to the foragers inhabiting Grotta dell'Uzzo sustained occupation year-round. The close proximity of the site to the Northwestern Sicilian mountains provided access to indigenous deer, which may have migrated to higher altitudes during summer months, however the coastal location also provided immediate access to marine resources. Ample quantities of marine material recovered from Mesolithic levels of Grotta dell'Uzzo demonstrate the frequent acquisition of local marine resources (Leighton 1999). Proportions of mollusks, fish and cetaceans within Uzzo climaxed during the late Mesolithic, immediately prior to the theoretically arbitrary delineation between the Mesolithic and Neolithic periods (Tusa 1994).

Neolithic Data

Neolithic Western Sicily (6000-3500 BC) underwent a shift from semi-sedentary to full sedentary lifestyles partly as a result of the adoption of food production (Leighton 1999). Neolithic sites in Western Sicily are numerous, yet few have been examined in great detail. Again, the Grotta dell'Uzzo is a key component for understanding Neolithic subsistence patterns because of both the diverse array of material recovered and the degree of preservation. At Neolithic Uzzo, the subsistence strategy remained focused on hunting and fishing, however the introduction of domesticates greatly altered the floral assemblage. Non-indigenous domesticates such as einkorn and emmer wheats, domestic lentils, figs, horse beans, bitter vetch, peas, and almonds accompanied the cultivation of indigenous olives (Leighton 1999). Such a diverse array of non-indigenous domesticates testifies to the exchange and introduction of seeds and, equally important, techniques for supporting such non-local species.

Complementing the agricultural contributions to local Neolithic subsistence strategies, deer, fox and wild cats were hunted, several species of fish were caught, and marine shellfish were still collected (Leighton 1999). The diversity of indigenous terrestrial and marine biota contributing to the diet of Neolithic cultures reflects a transitional stage during which indigenous animals and fish remained an important portion of the subsistence strategy. During this period, domesticated species from abroad were introduced, at first complementing and later substantially altering local subsistence strategies. Domesticated sheep, goats, cattle, dogs and pigs were incorporated into the dietary regimen during the Neolithic, significantly altering the biodiversity of Western Sicily (Leighton 1999).

The Neolithic introduced innovative architectural styles incorporated into both the domestic unit and settlement patterns. Neolithic southern Italian and Sicilian sites included both cave and open-air dwellings, but also, in numerous instances incorporated a ditched enclosure (Malone 2003). The lack of a significant ditch at Uzzo may provide evidence of the continuation of Mesolithic habitation styles, or may not necessarily be required for a rock-shelter.

Other Western Mediterranean Neolithic sites exhibit evidence of the adoption of specific non-indigenous plant species within an agricultural framework. At Cueva de los Murcielagos, located in Southern Spain, Neolithic levels span from 4500 to 3200 BC and provide evidence for the exploitation of several floral species. The only species represented within the Neolithic levels at this site include free-threshing wheats (*Triticum durum* and *T. aestivum*) and barley (*Hordeum vulgare*), with a subsequent shift in the later Neolithic to glume-wheats (*T. monococcum* and *T. dicoccum*), free-threshing hexaploids (*T. aestivum*) and barley (*H. vulgare*) (Pena-Chocarro 1999). The continual agricultural reliance on *Triticum* species within the floral assemblage provides evidence for the selection of suitable hearty varieties over other available flora. Specific wheat species may have been

selectively preferred, as is demonstrated at Cueva de los Murcielagos, where proportions of free-threshing wheats (*T. durum* and *T. aestivum*) are significantly higher than glume-wheats such as einkorn and emmer (Pena-Chocarro 1999).

Remains from numerous fruit and nut species were recovered at Cueva de los Murcielagos including figs (*Ficus carica*), wild grapes (*Vitis vinifera sylvestris*), olives (*Olea europaea*), and acorns (*Quercus*) (Pena-Chocarro 1999). The diversity of floral species incorporated within the diet of Neolithic Cueva de los Murcielagos accounts for a subsistence strategy designed to provide alternative options in the event of drought or other catastrophic events capable of destroying future food resources.

Discussion

Alterations in Western Mediterranean subsistence strategies accompanying the Mesolithic-Neolithic cultural transition reveal the dynamic nature associated with changing lifeways, material culture, and architecture. The development of advantageous technological innovations arose as a series of "microecological" histories" involving exploitation of indigenous plant species (Barker 2005: 64). Rather than a sudden adoption of agricultural practices resulting in a shift in subsistence strategies, a gradual transition more adequately represents the rise of agriculture and pastoralism.

Archaeobotanical evidence from Uzzo supports an evolutionary scheme adopting various elements of cultivation over several stages. During the Neolithic, the continual reliance on resources available during the Mesolithic provides evidence for a gradual transition at the Grotta dell'Uzzo and the development of hybrid modes of subsistence incorporating both Mesolithic and Neolithic strategies. Mesolithic subsistence strategies were not wholly discarded, rather such strategies adopted elements of food producing technology,

creating a hybrid subsistence strategy employing elements of both Mesolithic and Neolithic lifeways. The earliest of these adoptions concerns the acquisition of fish. Proportions of fish remains within Mesolithic levels at Uzzo rose significantly from c. 8570 BC until 6940 BC, at which point fish accounted for almost 50% of the faunal remains recovered (Tusa 1996). The early increase in the proportions of fish incorporated within the diet at Uzzo corresponds to the transition from the Mesolithic to the Neolithic (Costantini et al. 1987).

Proportions of remains of wild fauna decrease proportionate to the increase in remains of domesticated sheep and cattle, indicating the transition and growing reliance on domesticated species, which took place over several millennia (Tusa 1996). Floral remains from the Grotta dell'Uzzo also provide sufficient evidence for the gradual shift to agriculture. The adoption of certain grain species during some periods earlier than others indicates a gradual application of agricultural methods to various granular species. Barley, for example, appears at late periods in Uzzo, preceded by earlier use of other grains (Tusa 1996). Such a model reflects the combination of foraging with agricultural elements for nearly a millennium rather than a rapid switch from foraging to farming (Barker 2005).

A gradual shift from foraging to food production may have fostered neighboring forager populations to switch to an agro-pastoral strategy. In order to create land suitable for agricultural or pastoral activities, the destruction of portions of existing forests was required, which in turn destroyed suitable habitat for the wild fauna and flora inhabiting the region, and therefore significantly reduced the resources available to foraging populations (Whitehouse 1971). This habitat destruction provided an impetus for forager populations to adopt elements of an agrarian strategy, further contributing to the gradual adoption of subsistence strategies based on food production practices.

An increasing reliance on fish as a significant proportion of the subsistence strategy may be the result of

prolonged duration of occupation periods at Uzzo cave, indicating the initiation of a more sedentary lifestyle. The cause for such a rise in the proportions of fish and the resulting decline in the proportions of wild fauna may be attributed to advanced seafaring technology (Tusa 1996). Fish remained a significant contribution to the diet of the Mesolithic Uzzo foragers even after the introduction of domesticates in the Neolithic.

The gradual decline in the proportion of fish within the dietary assemblage, following the adoption of domesticated flora and fauna, provides significant evidence of cultural continuity. Had Neolithic colonizers fully replaced Western Sicilian Mesolithic populations, dietary assemblages at Grotta dell'Uzzo might display an abrupt shift from hunting to animal husbandry and architectural styles might have been altered significantly, neither of which is observed in full. The arrival of sheep and goat species to western Sicily during the Neolithic attests to the introduction of non-indigenous species, most likely from Greece via the Southern Italian peninsula (Leighton 1999). The appearance of these species, as represented by the faunal remains at Grotta dell'Uzzo, facilitated shifts in local food procurement techniques, and is representative of a gradual evolutionary adoption of non-indigenous species and related technology first introduced via the demic diffusion of peoples of eastern cultural origin.

Retaining elements of the dietary assemblage utilized during the Mesolithic period, particularly fish, indicates continual reliance on a natural resource known to the Mesolithic foragers into and during the Neolithic. Had Neolithic colonizers interacted with the indigenous Mesolithic foragers in order to supplement their dietary regime, food producing technologies may have spread at a far more abrupt rate. An evolutionary approach best accounts for the gradual adoption of various elements of food producing technology

within existing strategies and the subsequent adaptation of those technologies to fit regional conditions and constraints.

The development and adoption of organized agricultural practices during the Neolithic period culminated in numerous technological innovations suited to agricultural purpose. Tools belonging to new lithic industries became incorporated among the agricultural toolkit and formed the basis for inter-island exchange. Mesolithic economic systems already in place became expanded to encompass distant cultures, contributing to the development of later cultural entanglements during the Copper Age. The transportation of raw materials to be refined and consumed at great distances over aquatic and terrestrial obstacles accompanied the spread of cultural lifeways resulting in dynamic social responses to cultural transformations. The distant consumption of goods, such as obsidian from Lipari utilized in Western Sicily attests to developing cultural entanglements (Aranguren and Revedin 1996).

Summary

This analysis examined the development of hybrid culture through several related foci: variation in domestic architecture, the rise of agriculture, and the adoption of pastoralism throughout the Mesolithic-Neolithic transition in the Western Mediterranean, with a particular emphasis on Sicilian development. The most suitable interpretation concerning the adoption of an agrarian lifestyle may be one of cultural continuity (Tusa 1996). Cultural continuity accounts for a gradual shift from a foraging lifestyle to one based on agriculture and pastoralism over an extended time span rather than one in which an "agricultural frontier zone" fosters a sudden shift to agriculture (Zvelebil 1998: 23). Such a model does not rely on external populations replacing existing ones, rather agrarian developments were first introduced, then developed leading to specialization at a later time. The incorporation of elements of foreign social lifeways within indigenous lifeways coupled with the retention of lifeways and

traits characteristic of indigenous identity constitute hybrid culture. Early Neolithic culture at Grotta dell'Uzzo, founded on Mesolithic culture, socially incorporated foreign subsistence strategies, forging a cultural continuity based on the assimilation of native and foreign lifeways.

The transition from the Mesolithic to the Neolithic in the Western Mediterranean was more dynamic than a simple unilinear diffusion of food producing techniques. The introduction, adoption and modification of food producing technologies relied on the evolutionary creativity of humans to adapt methods to succeed under various conditions. Without the evolutionary adaptability of the crops selected combined with the will of the populations encountering the new food producing technologies, diffusion of such techniques would not have succeeded. This brief analysis has illustrated the potential for applying postcolonial theoretical models to the dispersal and adoption of food production strategies. Such strategies accompanied the more physically tangible remains of cultural identity observed within the archaeological record.

References Cited

- Aranguren, B. and A. Revedin.
1996 Problemi relative all'insorgenza del mesolitico. In *Early Societies in Sicily. New Developments in Archaeological Research*, edited by R. Leighton, pp. 31-40. Accordia Specialist Studies on Italy, Volume 5. Accordia Research Centre, University of London.
- Bar-Yosef, O.
2004 East to West-agricultural origins and dispersal into Europe. *Current Anthropology* 45:S1-S3.
- Barker, G.
2005 Agriculture, pastoralism, and Mediterranean landscapes in prehistory. In *The Archaeology of Mediterranean*

Prehistory, edited by E. Blake and A. B. Knapp, pp. 46-76. Blackwell Publishing Ltd, Malden, MA.

Bonfiglio, L. and M. Piperno.

1996 Early faunal and human populations. In *Early Societies in Sicily. New Developments in Archaeological Research*, edited by R. Leighton, pp. 21-30. Accordia Specialist Studies on Italy, Volume 5. Accordia Research Centre, University of London.

Clark, R.

2000 *The Mesolithic hunters of the Trentino*. BAR International Series 832, Oxford.

Colledge, S., J. Connolly, and S. Shennan

2004 Archaeobotanical evidence for the spread of farming in the eastern Mediterranean. *Current Anthropology* 45:S35-S58.

Costantini, L, M. Piperno and S. Tusa

1987 La Neolithisation de la Sicilie Occidentale d'apres les resultats des fouilles a la Grotte de L'Uzzo (Trapani). In *Premieres Communautés Paysannes en Mediterranee Occidentale*. edited by J. Guilaine, J. Courtin, J.L. Roudil and J.L. Vernet, pp. 398-405. Centre National de la Recherche Scientifique, Paris.

Dietler, M.

2005 The archaeology of colonization and the colonization of archaeology: theoretical challenges from an ancient Mediterranean colonial encounter. In *The Archaeology of Colonial Encounters*, edited by G. Stein, pp. 33-68. School of American Research Press, Santa Fe.

Larsen, C. S.

1995 Biological changes in human populations with agriculture. *Annual Review of Anthropology* 24:185-213.

Leighton, R

1999 *Sicily Before History*. Cornell University Press, Ithaca.

Malone, C.

2003 The Italian Neolithic: a synthesis of research. *Journal of World Prehistory* 17: 235-312.

Pena-Chocarro, L.

1999 *Prehistoric Agriculture in Southern Spain During the Neolithic and the Bronze Age*. BAR International Series 818, Oxford.

Rowley-Conwy, P.

1995 Making first farmers younger: the western Mediterranean evidence. *Current Anthropology* 36:346-353.

Stein, G.

2005 Introduction. In *The Archaeology of Colonial Encounters*, edited by G. Stein, pp. 3-32. School of American Research Press, Santa Fe.

Tusa, S.

1994 *Sicilia Preistorica*. Dario Flaccovio Editore, Palermo.

1996 From hunter-gatherers to farmers in western Sicily. In *Early Societies in Sicily*, edited by R. Leighton, pp. 41-56. Accordia Specialist Studies on Italy, Volume 5. Accordia Research Centre, University of London.

van Dommelen, P.

2006 The Orientalizing Phenomenon: Hybridity and Material Culture in the Western Mediterranean. In C. Riva and N. Vella, *Debating Orientalization: Multidisciplinary Approaches to Change in the Ancient Mediterranean*, pp. 135-152. Equinox, London, UK.

Whitehouse, R

1971 The last hunter-gatherers in southern Italy. *World Archaeology* 2:239-254.

Whittle, A.

1985 *Neolithic Europe: A Survey*. Cambridge University Press, Cambridge.

Zvelebil, M.

1998 Agricultural frontiers, Neolithic origins, and the transition to farming in the Baltic basin. In *Harvesting*

the Sea, Farming the Forest, edited by M. Zvelebil, R. Dennell and L. Domanska, pp. 9-30. Sheffield Academic Press, Sheffield.

- 2001 The agricultural transition and the origins of Neolithic society in Europe. In *Documenta Praehistorica XXVIII*, edited by M. Budja, pp. 1-26. Univerza v Ljubljani, Ljubljana.