Placing the environment in migration: environment, economy, and power in Ghana's Central Region

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Abstract. This paper examines the role of environmental change as a driver of migration, a central concern of areas of inquiry ranging from the Human Dimensions of Global Change research to population geography and development studies. Although much of the literature on the role of the environment in migration reflects a general awareness that environmental factors are but one of a suite of influences shaping migration decisionmaking, a framework within which to place social, economic, and environmental issues with regard to particular migration decisions is absent from this literature. Drawing upon recent contributions to the literature on migration, and political ecological concerns for access to and control over resources, in this paper I present a framework for placing such issues founded on a Foucauldian conceptualization of power. This framework treats environment, economy, and society as both products of and productive of social differentiation, instrumental modes of power, and resistance. These forms shape actors' understanding and negotiation of their social, economic, and environmental contexts, and therefore their migration decisionmaking. I illustrate the application of this framework through the example of three villages in Ghana's Central Region, where rural environmental and economic changes appear to have driven a complex pattern of out-migration over the past thirty-five years. This migration shows the ways in which environmental change becomes inseparable from local perceptions of economy and local politics through local manifestations of power.

Introduction

The link between environmental change and migration is of critical interest not only to demographers and economic planners, but also to those who seek to understand the human dimensions of global change and devise means of mitigating the human impacts of these changes. The commonly held belief that the developing world will bear the brunt of global environmental change in the immediate future (see, for example, World Bank Institute, 2003) makes the understanding of such links of great importance to development as well.

Although the literature on environmental migration, environmental migrants, and environmental refugees reflects a general awareness that it is rarely productive to separate environmental drivers from economic and political concerns when examining many 'environmentally motivated' migrations (for example, Bates, 2002; McGregor, 1993), there is no discussion in this literature of how environment, economy, and politics are linked in such migration decisions. In the (case-study-driven) literature attempts have been made to foreground the role of the environment in migration (attempts that are part of a larger, important project seeking to inject environmental change into broader discussions on migration and refugees) and many studies create caricatures of migration decisionmaking that are easily discredited, in effect discounting the important role the environment does play in migration decisionmaking.

In this paper I present a framework within which we can link environment, economy, and society to understand better migration decisionmaking and therefore the role of the environment in such decisions. Building upon an awareness of the importance of social structure in environmental and migration decisionmaking in both contemporary migration studies (for example, Gidwani and Sivaramakrishnan, 2003; Silvey and Lawson, 1999)

and political ecological explorations of politics, economy, and environment (for example, Carney, 1988; 1992; 1996; Carney and Watts, 1990; Kull, 2002; Peet and Watts, 1996; Peluso and Watts, 2001; Pred and Watts, 1992; Robbins, 1998; Rocheleau et al, 1996; Schroeder, 1997; Schroeder and Suryanata, 1996), I argue in this paper that environment, economy, and society are linked in migration decisionmaking through local manifestations of power. These manifestations of power are the condition for and result of local understandings of environment, economy, and society for migrants and therefore form the foundation upon which the rationale for migration decisions takes shape.

I begin with a brief overview of the literature on environmental change as a driver of migration, examining the dominant assumptions within this literature and some of the critical voices that have emerged to challenge these assumptions. I then turn to the convergence of contemporary approaches to migration decisionmaking and political ecological studies of access to and control over resources. This convergence centers on a shared understanding of the importance of local social relations in both migration decisionmaking and resource access. By using this convergence as a foundation upon which to build connections between migration and economic, environmental, and social change, I present a framework within which one can explore a particular migration decision as shaped by local manifestations of power. I then illustrate the effectiveness of this framework through a case study of three villages in Ghana's Central Region which experienced various effects of an out-migration between 1970 and 1995. Environmental change played an important role in this migration, but it is not a sufficient explanatory factor for migrant decisionmaking when the complexity of this migration is fully engaged. To discount the role of environmental change in favor of economic or political concerns, however, is also to misrepresent the processes at work in this context. The complex migration response to these changes, when explored via the changing manifestation of power in this context, links environment, economy, and politics into a richer understanding of migration decisionmaking than is available through current explanatory models in the environmental migration literature.

Migration and the environment

Current studies of the relationship between environment and migration generally fail to reference contemporary works not only in the broader field of migration studies, but also in related nature–society studies that examine uneven access to and control over resources. I therefore begin by discussing the current approaches to understanding the role of the environment in migration. I follow this with an examination of contemporary approaches to migration and political ecology to highlight the ways these two areas of thought share a focus on the importance of social relations in shaping local decisionmaking. It is this shared focus on social relations that provides the foundation for the migration framework of this paper.

Environmental causes of migration

Much of the literature on the environmental causes of migration (and on environmental refugees) rests on what Suhrke (1994) calls a maximalist point of view, in which the environment is the primary, if not only, cause of migration. In this view, environmental degradation is a cause of insecurity. This insecurity 'displaces' people insofar as it causes them to seek out settings of greater safety and certainty (Kibreab, 1997, page 20; O'Lear, 1997, page 612).

Maximalist writing has been heavily critiqued within the migration literature on two major fronts. First, a number of writers (Bates, 2002, page 466; Hugo, 1996, page 106; Lonergan 1998; Suhrke, 1994) note that not all migrations relate to environmental change in the same manner. There are clear differences, for example, between

those migrants fleeing a volcanic eruption and those who leave because of gradual soil degradation. In cases of gradual environmental change, actors weighing the decision to move appear to integrate environmental change with other issues, such as their economic and political situation. Because this particular debate on the relationship between environmental change and migration is generally framed around the issue of refugees, it is preoccupied with identifying what kinds of environmental change clearly constitute a "legitimate" push for migration (see also Myers, 2002; Myers and Kent, 1995). Therefore, although this literature raises important questions about the role of the environment as a driver of migration, this debate does not closely interrogate the links between environment, economy, and politics in migration decisionmaking.

The issue of links between migration, environment, economy, and politics in particular migration decisions is taken up in a second, 'minimalist' (Suhrke, 1994), approach to migration. Supporters of this minimalist approach argue that it makes little sense to separate the political and the economic from the environmental (for example Bates, 2002; Lonergan, 1998; McGregor, 1993). Very little of this work, however, actually engages how the environment, as one of a suite of drivers in a specific context, becomes integrated with economic and political concerns. Instead, this literature tends to focus on case studies that illustrate the shared importance of economy, politics, and environment in a given migration decision.

Migration, migrants, and the environment: local decisionmaking in contemporary frameworks
A number of authors have recently published reviews of the migration literature couched in the context of rethinking that literature's approach to the migrant and to migration (see Gidwani and Sivaramakrishnan, 2003; Lawson, 1998; Lonergan, 1998; Silvey and Lawson, 1999). Rather than reexamine this literature, I present the broad characterizations in these reviews to situate the contemporary approaches that I will draw upon later in this paper. These reviews divide the migration literature into two camps. The first of these camps is referred to as neoclassical (Lawson, 1998; Lonergan, 1998; Silvey and Lawson, 1999) or rational choice (Gidwani and Sivaramakrishnan, 2003). According to this line of inquiry, people migrate because they expect a greater net return (usually measured in money) on that migration than from staying in place. Although migrations rarely reflect the uniformity one might expect from such economizing rationality, adherents to this school of explanation argue that variation in decisionmaking is the product of actors dealing with such issues as imperfect information, imperfect competition, and bounded rationality (Gidwani and Sivaramakrishnan, 2003, page 188). Although this school of thought grants actors agency in their migration decisions, as Gidwani and Sivaramakrishnan (2003, page 189) point out, this agency is "a curiously deterministic version ... governed by the imperatives of utility optimization."

The second line of inquiry in migration studies which can be identified in reviews of the migration literature is a political economy (Lawson, 1998; Lonergan, 1998) or Marxist (Gidwani and Sivaramakrishnan, 2003) perspective. This approach treats migration as a structural response to a change in political economy. Specifically, proponents of this approach see migration as a response to uneven development and the ongoing efforts of the powerful in society to exploit the less powerful. Consequently, a study informed by this perspective does not explain a migration of rural agriculturalists moving to cities to take up factory labor through individual agency. Instead, this migration is treated as part of a broader political economy in which the recruitment of these seasonal laborers is a tactic by which the politically and economically powerful create surplus labor pools to keep wages low and maximize profits. These political economy models, then, tend to deny the agency of

individuals in their analyses, suggesting instead that the political economic structure determines behavior (Gidwani and Sivaramakrishnan, 2003, page 188; Lawson, 1998, page 41; Silvey and Lawson, 1999, page 126).

Although there exist extensive debates between the neoclassical and political economy approaches within the migration literature, a number of authors have pointed out their shared shortcomings. Gidwani and Sivaramakrishnan (2003, page 189) offer the broadest critique of both schools, arguing that neither offers any interrogation of a modernist rationality that reduces the migrant and migration to a "necessary, if sometimes unfortunate, subplot in the unfolding of history" (see also Silvey and Lawson, 1999, page 126). This broad critique is echoed in the work of other critics (see Halfacree and Boyle, 1993, pages 334 – 335; McHugh, 2000, page 74), who argue that both camps reduce migrants to automatons acting out a stimulus – response cycle.

The problems that rational choice and political economy approaches to migration share have prompted a number of critics to offer their own alternatives to these dominant schools. Many of these critics aim to understand "how migrants apprehend, negotiate, and transform the social structures that impinge on their lives" (Gidwani and Sivaramakrishnan, 2003, page 190; see also Halfacree and Boyle, 1993). The diverse approaches that result from their critiques range from efforts to explore the transformative power of consumption (for example, Gidwani and Sivaramakrishnan, 2003), to the exploration of the voices of migrants (for example, Silvey and Lawson, 1999) and their biographies (for example, Halfacree and Boyle, 1993; Lawson, 2000), to a heightened engagement with feminist theory (for example, Lawson, 1998).

These alternative migration approaches parallel work in political ecology, especially feminist political ecology, that focuses on uneven access to and control over resources. Feminist political ecology extends the explanation of this uneven access, often linked to the social cleavages of class and ethnicity, to the critical cleavage of gender [for example, the contributors to Rocheleau et al (1996), and less explicitly Carney (1992; 1996), Carney and Watts (1990), Schroeder (1997), and Schroeder and Suryanata (1996)]. Such work focuses on the ways in which local social relations form crucial bridges between changing local understandings of the environment and resources, flows of transnational capital, and changes in government policy. In this way, we can treat this literature [which is itself drawn from an extensive literature on household economic and social relations, such as Barrett et al (2001), Goheen (1988), Haller (2000), Kalinda et al (2000), Low (1989), Reardon (1997), and Wilk (1997)] as a minimalist political economy approach similar to minimalist approaches to migration. Just as a minimalist approach to migration notes that environmental change is rarely enough to explain migration decisions, so feminist political ecology recognizes that capital and governmental policy, although very important, are not sufficient to determine changes in resource use. In both frameworks an understanding of the local social structure is critical to an understanding of any such changes.

The convergence of the contemporary migration literature with the interests of political ecology is based on a shared understanding of the importance of local social relations in human perception and decisionmaking. These social relations, therefore, serve as a point of contact between the migration literature, which attempts to understand migrant subjectivity, and the political ecological literature, which attempts to understand the social construction of resources and their use. This point of contact creates the potential for a link between environmental change and migrant subjectivities.

Environmental change and migration: a contemporary approach

To generate a framework we can use to explore and understand the relationship between environmental change and migration decisionmaking, we must make explicit the connection between the political ecological attention to the social construction of the environment and the contemporary migration literature's minimalist focus on migrant subjectivities as a driver of migration. In short, we need to theorize explicitly how people apprehend, negotiate, and transform their local context in a manner that links environment to migration. The framework I propose here employs a Foucauldian conceptualization of power (specifically drawn from his 1994 piece "The subject and power") and its circulation through society as a central way to theorize this apprehension, negotiation, and transformation. I turn to this particular piece because it is one of the few in which Foucault tries to bridge a poststructural conceptualization of power and an understanding of how that power affects society, agency, and action. This effort is perhaps best captured in his assertion that power is best understood not as something to be possessed and wielded against another, but rather as "a way in which certain actions may structure the field of other possible actions" (Foucault, 1994, page 343). The structure Foucault refers to in this phrase is not that associated with Marxist or Sauerian cultural geographers. Instead, it is an open structure much like the systems of representation described by Rose (2002, page 462) in that it comes "to exist *not* through the effects of a preestablished systematizing force (a hegemonic ideology or a dominant discourse) but through the active process of being given form." Therefore, the categories and relationships that mark any structure are "always taking shape as they are expressed differently through different practices" (Rose, 2002, page 462). The importance of practice in the effort to bridge structure and the poststructural requires an emphasis on the examination of social relations because "this possibility of action on the action of others ... is coextensive with every social relationship" (Foucault, 1994, page 345). Specifically, power becomes manifest through "various kinds of individual disparity, of objectives, of the given application of power over ourselves or others, of more or less partial or universal institutionalization and more or less deliberate organization" (Foucault, 1994, page 343) seen in every society.

Critically, Foucault (1994) observes that power produces new objects of knowledge and information. Particular manifestations of power define what is knowable and what is worth knowing about—they structure the field of possible actions by shaping local understandings of a particular context, the problems that context offers to those living in it, and possible solutions to those problems. The understandings of the world produced by power therefore often induce further relations and effects of power (Foucault, 1994, pages 336–339). For example, manifestations of power, shaped as they are by existing social relations, may suggest solutions to problems ('possible actions') that, intentionally or unintentionally, produce or reproduce individual disparities that enable other manifestations of power that further differentiation and inequity in a given context. Foucault called this relationship between the manifestation of power and the creation of understandings of the world *power/knowledge*, thus highlighting the inseparability of the two.

Therefore, a Foucauldian approach to environmental migration builds on the emphasis in both the migration and the political ecology literatures on social structure and differentiation. Such an approach, however, moves beyond the existing literature by shifting the focus of study from conditions that drive migration (which are inevitably accompanied by an implied set of motivations or drivers whose meaning and function are often assumed) toward the local power/knowledge in which environment, ecology, and politics are understood. The ways migrants negotiate and transform their context, and the objectives behind such negotiation and transformation, are the condition and result of this understanding.

It is my contention, then, that, to understand the objectives of particular migration decisions in a given context, one must gain access to the local power/knowledge within which that decision is considered as a possible action. Foucault (1994, page 344) suggests three foci for the analysis of power relationships that facilitate such an investigation. First, we can examine the system of differentiation that is the condition for and result of social relations in the context, for example, by exploring the social categories that define or are defined by economic and political roles. These differentiations are what "permits one to act upon the actions of others" (Foucault, 1994, page 344). Second, we must examine the instrumental modes of power employed in that context; that is, the ways in which the system of differentiations is converted from a potential for power into a manifestation of that power. Third (and closely tied to the instrumental modes of power in a given context), we must understand the ways certain actions are rationalized as part of or as productive of a field of possible actions. To this end, forms of resistance, shaped by or shaping a construction of the local context through power/knowledge, will help the researcher identify and define the parameters of local power/knowledge by setting the boundaries of debate. Taken together, and applied to migration decisions, these three foci can help us identify the complex objectives pursued by those who choose to move and those who choose to remain. It is in understanding these objectives that we can place the environment (and economy, society, etc) in migration decisions.

Turning now to the case of three villages in Ghana's Central Region, I explore the ways the application of the above-described framework and approach to a local migration event spanning twenty-five years fits into a minimalist view of the role of the environment in this migration. In doing so, this case study illustrates how an understanding of local migration founded on power/knowledge goes beyond the current literatures in migration and political ecology by highlighting how the changing manifestation of power in this context links economy, politics, and environment into a local power/knowledge through which various migration decisions take shape.

Environment, economy, and the household politics of migration in Ghana's Central Region

The following discussion of the changing situation of Dominase, Ponkrum, and Yesunkwa, three villages in coastal Ghana, is based on fieldwork conducted as part of a larger project assessing local strategies for negotiating economic and environmental change at the rural margins of globalization. This fieldwork spanned 13 months between 1997 and 2000. Beyond the participant observation I conducted while living in and around these villages, in the course of my research I engaged 30 residents of Dominase and Ponkrum (14 men and 16 women) in more than 60 interviews about their household economies and agricultural strategies. I conducted another 30 interviews on these same topics with 14 residents (8 men and 6 women) in Yesunkwa. Though I attempted to obtain a cross section of the population by gender (I targeted members of the same household to observe household dynamics better) and a reasonable distribution of ages, my sample population was fundamentally based on individual willingness to participate in the research.

The interviews, although relatively unstructured, constituted what Rubin and Rubin (1995, page 47) call a continuous design model, focused on understanding the structure of the household economy and agricultural practice in these villages. Under the continuous design model, I followed the answers I received to various questions (and from various sources) to new lines of inquiry, until I reached what Glaser and Strauss (1967, pages 61 – 62, 111 – 112) call theoretical saturation: the point at which new concepts and paths of inquiry ran out and the data gathered through my interviews began to repeat itself. At this point I used surveys, which reached an additional 25 residents (17 men and 8 women) of Dominase and Ponkrum and 25 residents

(12 men and 13 women) of Yesunkwa, to flesh out the economic and agricultural trends observed in the interview data at the point of theoretical saturation. The following observations and quotations stem from the interviews, surveys, and participant observation I conducted in these villages. I supplemented this material with archaeological excavation, which I discuss below.

Historical context
The villages of Dominase and Ponkrum (figure 1, see over) are located at the southern edge of Ghana's Upper Guinea forest, some 8 km northwest of Elmina. They are located a mere 500 m from one another and have, since settlement by Akan farmers in the early 1800s, existed in some configuration of a primary-satellite relationship. Historically, the residents of these villages have farmed plots of land interspersed with one another, such that even today farmers from Dominase pass through Ponkrum to reach their farms, and vice versa. The political structures of these two villages are also closely linked: for example, the current chief of Ponkrum was born in Dominase. These villages are nearly homogeneously Akan, and all residents follow Akan matrilineal kinship and land-tenure practices (discussed below). Therefore, although the residents of these villages might themselves object to this 'lumping' on grounds of history or civic pride, to understand the migration dynamics in this area over the past four decades these villages are best considered as a single unit (hereafter referred to as Dominase–Ponkrum).

By the 1950s the residents of Dominase–Ponkrum enjoyed relative prosperity among their rural counterparts. A critical component of this prosperity was wage labor from off-farm employment (OFE) opportunities as a result of a local logging operation starting up in the 1940s. This logging operation created various local manual labor jobs. It also improved the roads through these villages, allowing residents access to regional OFE opportunities in nearby towns such as Elmina and Cape Coast. It is important to note that the cash income from these OFE sources accumulated in the hands of men in this area, because the majority of OFE opportunities, whether local or regional, were manual labor, for which men were preferentially selected by prospective employers. While residents who remember logging and the improved roads claim that these wages were an important source of income for local residents, they agree that OFE income only augmented, but never replaced, the food-crop-based household economies of Dominase–Ponkrum.

The on and off logging to the north of Dominase–Ponkrum, which continued until the late 1960s, wrought gradual changes on the local environment. These changes, according to current residents of the area, included declining rainfall and increasing soil degradation related to the loss of canopy cover [although there is no meteorological database with a spatial resolution fine enough to support or refute these claims during this time, see Gyesi et al (1995) for a discussion of these issues in another part of Ghana with similar environmental characteristics]. Yet these environmental changes were not sufficient to drive residents from the area. According to current residents of Dominase–Ponkrum, the OFE and cash cropping income available to households through their male members provided a level of stability and certainty to residents of the area that offset these environmental changes.

It was not until the mid-1960s collapse of world prices for timber (see Huq, 1989) that environmental changes became an issue for residents. This economic change contributed to the demise of the local logging operation (Carr, 2002). Without the other sources of income they had come to rely on as part of the household income, residents began to note the changes twenty years of logging to the north of the area had wrought upon the local environment. Most importantly, residents began to experience difficulties in obtaining crop outputs sufficient to maintain the household income. At this point the residents of Dominase–Ponkrum began to abandon the area.
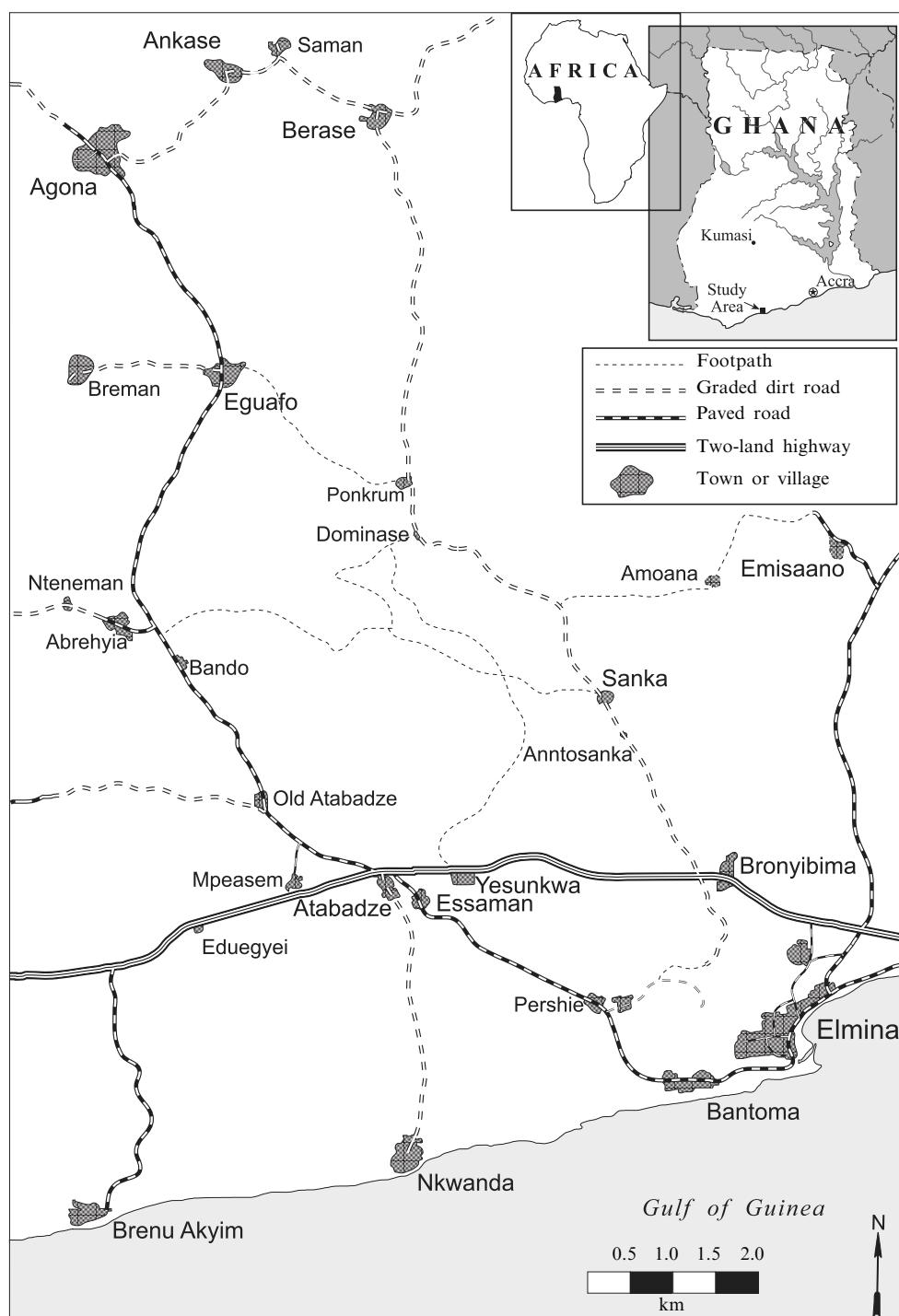
Figure 1. Locator map of the research area, with Dominase – Ponkrum in the center and Yesunkwa to the south.
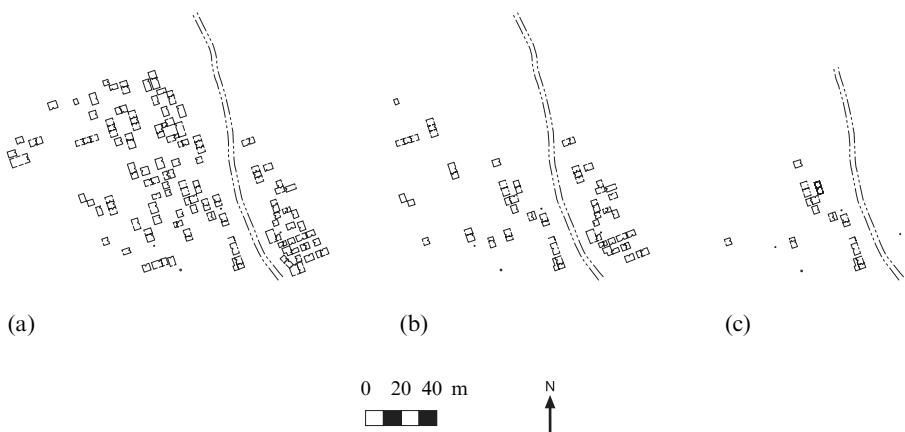
Figure 2. Sample village plans from (a) 1970; (b) 1980; and (c) 1990, illustrating the decline of Dominase, Central Region, Ghana.

In the course of mapping Dominase and Ponkrum in 1997, I linked structures (abandoned and occupied) to information gathered through interviews with local residents on the dates of either or both construction and abandonment of particular structures. The resultant village plans (see figure 2) indicated that between 1970 and 1980, some thirty-five households moved out of the area. The vast majority of these households relocated to periurban settlements where they could claim access to land via kinship or personal connection. Yesunkwa, a village located along the principal east – west highway in Ghana, exemplifies these destination settlements (see figure 1). The move to periurban sites makes sense, given that Yesunkwa's context, like the other periurban destinations, is similar to Dominase – Ponkrum before the mid-1960s. The residents of Yesunkwa have excellent access both to farmland and to regional OFE opportunities, such as road construction, serving as private watchmen, or working as hall porters at the nearby University of Cape Coast (Carr, 2001). Furthermore, the residents of Yesunkwa and other periurban settlements, unlike those living in contemporary Dominase – Ponkrum, often have access to electricity and public water. Even today, more than thirty years after the abandonment began, Dominase – Ponkrum still lacks electricity, public water, public sanitation facilities, and improved transportation connections.

The migration of residents from Dominase – Ponkrum to periurban settlements, however, is not simply the product of the growing awareness of environmental degradation on the part of the residents via the decline in OFE and cash cropping in this area. Despite the apparent logic of such a move for the many residents of Dominase – Ponkrum, the initial migration involved only 33% of the households in these villages. Between 1980 and 1990 another seventeen households (16% of the 1970 total) moved out of Dominase – Ponkrum, again to periurban settlements. Remarkably, these households were leaving *ten years* after the conditions apparently motivating this move were in place. Seventeen more households (16% of the 1970 total) moved out in the early 1990s, following the pattern described above. Thus, although some 65% of households located in Dominase and Ponkrum in 1970 eventually migrated in response to a convergence of events and trends that created a push factor for migration from this area, nearly half of the migrating households took more than a decade to respond to this push. This strongly suggests that the connection between economic and environmental change and migration was mitigated in some way in this context.

Social context and migration

The previous discussion of push factors, while illustrating the interrelated nature of economic and environmental factors in this migration, does little to explain how these factors are linked in different households to create the migration outcome described above. To explain this linking, I turn to the changing political economy of the household in Dominase – Ponkrum over the past forty years. In this political economy, it becomes apparent that the system of differentiations was instrumentalized and rationalized in Dominase – Ponkrum in a way that both privileged men and managed the changing material situation of the residents.

I begin with the context of Dominase – Ponkrum before the abandonment. Building an understanding of the political economy of the household in Dominase – Ponkrum during this time is considerably more complex than a similar study in the contemporary context. The extremely limited number of original residents remaining in Dominase – Ponkrum, and the limited number of migrants still living in places such as Yesunkwa, precludes the comparison of household political economies across time within Dominase – Ponkrum by means of oral historical means alone. This small sample size is problematic because of the limited cross section of the population represented (virtually all remaining original residents are men from a single family). Because migration is a highly political and emotional event, thirty years of hindsight is likely to color residents' memories of their earlier motivations. Further, some of the issues I am exploring are often seen as minor details in the day-to-day lives of those living in these villages. This opens up the possibility of ethnographic presentism, where individuals tend to fill blank spots in their memories with contemporary information, thereby making comparisons between past and present contexts problematic. Therefore, oral historical data on such things as previous agricultural and livelihood practices in Dominase – Ponkrum before the abandonment, while useful in general as a means of framing conditions in the area, cannot be seen as a rigorous source of fine-grained historical data in the absence of other sources of information that might provide some form of a cross-check.

To understand the political economy of households in pre-abandonment Dominase – Ponkrum, however, we can compare Dominase – Ponkrum to contemporary Yesunkwa, the village to which a plurality of the migrants from Dominase – Ponkrum moved. Such a comparison represents a search for analogies that might prove fruitful for developing an understanding of the changing political economy of the household in Dominase – Ponkrum over the past four decades. This comparison is not justified through Yesunkwa's role as a destination for Dominase – Ponkrum's migrants alone. For instance, the economic context of Yesunkwa is very similar to that of Dominase – Ponkrum before the abandonment. The location of Yesunkwa along a major east – west highway affords residents access to transportation and, therefore, to job opportunities like those once held in Dominase – Ponkrum (71% of the men interviewed and surveyed in Yesunkwa held wage-paying OFE). This OFE income does not replace farm income, but augments it, serving the same purpose as it did in the earlier context of Dominase – Ponkrum.

Although persuasive, the circumstantial similarities between Yesunkwa and Dominase – Ponkrum before the abandonment require further support. Even if one accepts that Yesunkwa provides an adequate representation of conditions in Dominase – Ponkrum before the abandonment, using aggregate data from Yesunkwa to infer local (that is, individual household) practices in pre-abandonment Dominase – Ponkrum runs the risk of ecological fallacy. This problem can be ameliorated, to some degree, by comparing particular households in Yesunkwa to particular households in Dominase – Ponkrum before the abandonment. Because such a one-to-one comparison
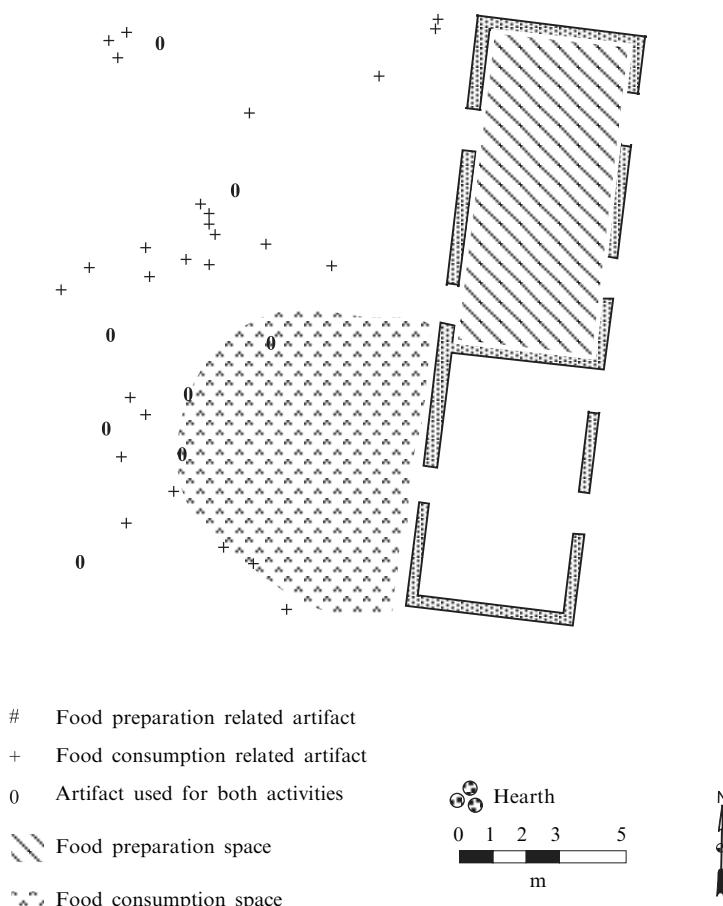
Figure 3. A plan of the spaces of a household in Yesunkwa occupied by an elderly husband and wife. Note the clear separation between the spaces marked by food preparation materials and food consumption materials.

is not possible through ethnographic means alone, we must turn to an alternative source of information. In this case, I employed archaeological techniques to examine the locations and uses of household social spaces in both Yesunkwa and pre-abandonment Dominase – Ponkrum, spaces that are closely linked to economic roles and the social relations of the household in both contexts [see Carr (2001, pages 113 – 138) for a detailed discussion of the archaeological methods employed in this study].

For example, in the households of Yesunkwa, spaces for food preparation (an activity conducted exclusively by women) are kept separate from spaces for food consumption (which typically involves the entire family at the same time) (figure 3). This separation of spaces clearly defines one of the roles of a woman in the household, differentiating her labor from that of her husband, father or brother, whose roles are to provide cash income for the household [for a discussion of the social spaces of the household in these contexts, see Carr (2001; 2002)]. These spaces, and their distribution, are identical to those observed archaeologically in the households of Dominase – Ponkrum before the abandonment (figure 4, see over).

The similarity between the pattern of household space seen in Yesunkwa and Dominase – Ponkrum before the abandonment becomes significant when one
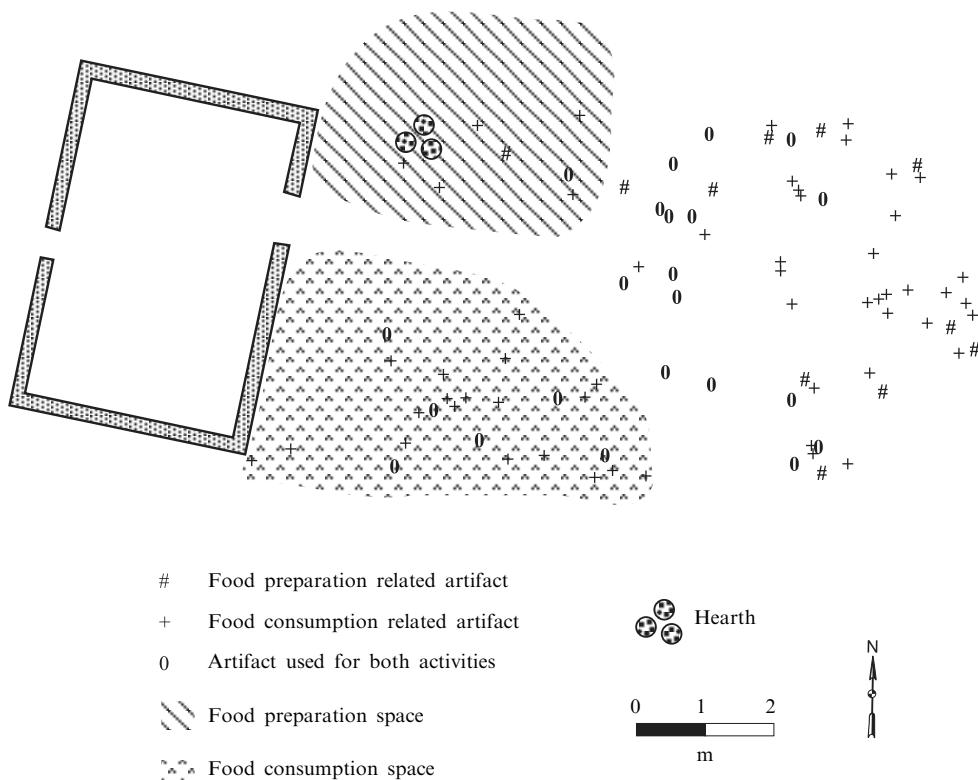
Figure 4. A plan of an excavated household in Dominase – Ponkrum once occupied by a husband, wife, and several children. Note the clear separation between the spaces marked by food preparation materials and food consumption materials.

compares this pattern to that of contemporary Dominase – Ponkrum, where cooking and eating take place *in the same space* (figure 5). The similar contexts of Yesunkwa and Dominase – Ponkrum before the abandonment display very similar patterns of household space. Despite sharing ethnicity, family connections and, in many cases, farmland with the households of Yesunkwa, the households of contemporary Dominase – Ponkrum, with its primarily agricultural economy and limited transportation network, have an entirely different pattern of household space. This strongly suggests that the broad socioeconomic similarities between Yesunkwa and Dominase – Ponkrum before the abandonment do filter down to similarities between households, and perhaps household practice, in these two contexts.

Given the general similarities in the economic and transportation situations, and the specific similarities between the household spaces and practices of these two villages, it is possible to draw analogies to the political economy of the household in Dominase – Ponkrum before the abandonment from the political economy of the household in contemporary Yesunkwa. Our entrée into this past political economy begins with the social spaces of Dominase – Ponkrum before the abandonment. These spaces suggest a system of differentiations in this context very similar to Yesunkwa's, where the differentiation is based on gender and marked by the particular labor and value that men and women provided to the household. When one examines the other major source of income in Yesunkwa, agricultural production, it becomes apparent that men and women employ very similar agricultural strategies to achieve a similar goal: the production of crops for sale at market
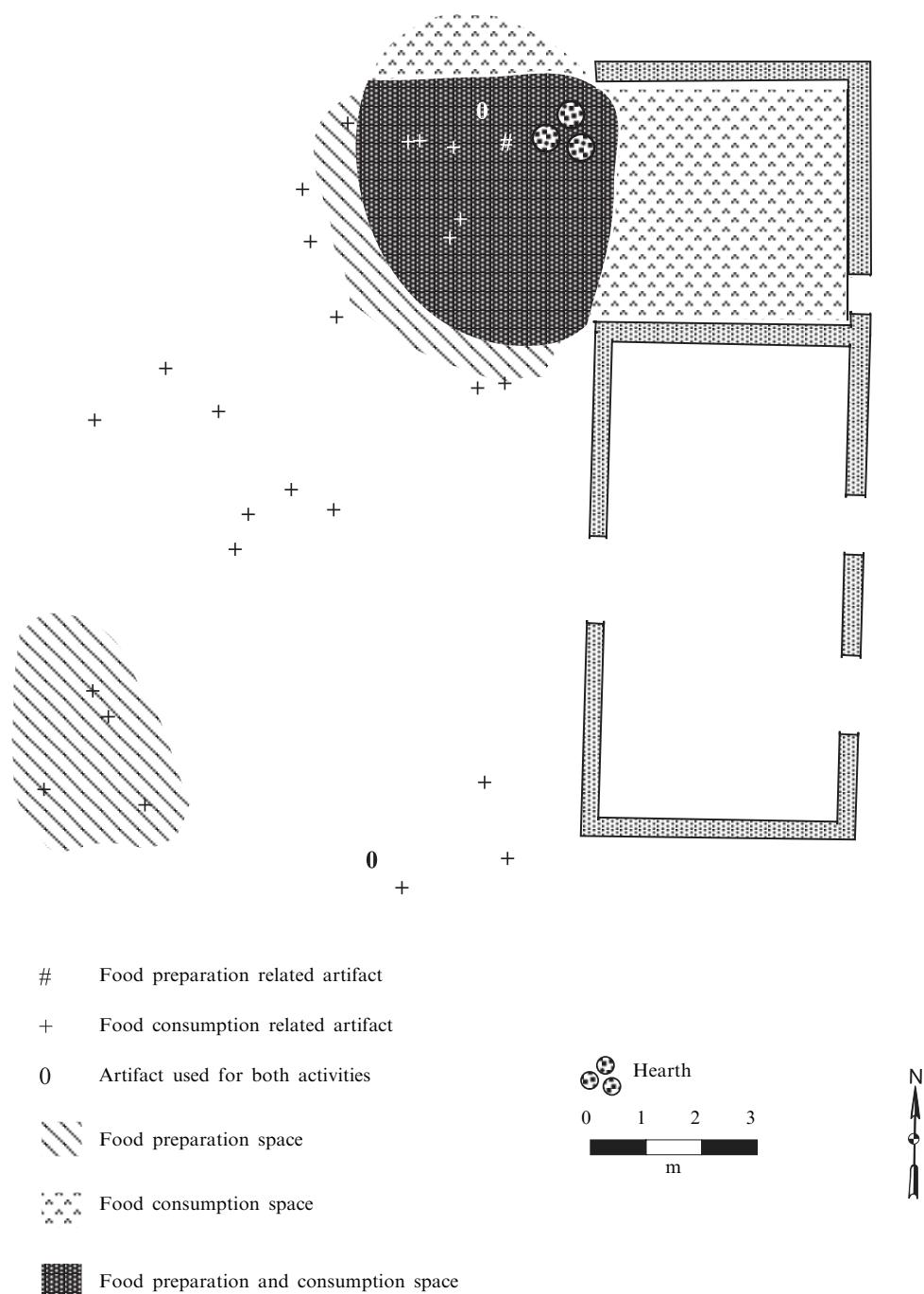
Legend

\# Food preparation related artifact

\+ Food consumption related artifact

0 Artifact used for both activities

Food preparation space

Food consumption space

Food preparation and consumption space

Hearth

0 1 2 3
m

N

Figure 5. Plan of the spaces of a household in contemporary Dominase – Ponkrum occupied by a husband and wife. Note the correspondence of food preparation and food consumption spaces.

Table 1. Men's and women's agricultural production strategies in Yesunkwa, as materialized in farm composition and crop use.

Crop rank by popularity	Male-owned farms		Female-owned farms	
	crop	use	crop	use
First	cassava	for consumption more than for sale	cassava	for consumption more than for sale
Second	charcoal	for sale more than for consumption	corn	for sale and consumption equally
Third	corn	for sale and consumption equally	pepper	for sale more than for consumption
Fourth	palm	for sale more than for consumption	tomato	for sale more than for consumption
Fifth	pepper	for sale more than for consumption	garden egg	for sale more than for consumption
Sixth	firewood	for sale more than for consumption	firewood	for consumption more than sale

(table 1). Therefore, in Dominase – Ponkrum before the abandonment, as in Yesunkwa today, the system of differentiation likely resulted from differential access to OFE opportunity.

It is critical to understand the local agricultural and land-tenure system in Yesunkwa, which closely parallels that of other Akan groups throughout Ghana (see Awusabo-Asare, 1990; Brydon, 1987; Quisumbing et al, 1999; Quisumbing et al, 2001), when trying to understand the instrumental modes of power that come into play through this system of differentiation. Most relevant to the case at hand is the fact that women and men of the same household plant and control their respective incomes from separate, autonomous farms (see also Egyir, 1998, page 18). Akan households obtain land on an annual basis through the male head of family (who himself obtains this land through his clan's communal holdings). There are issues about the distribution of labor on household farms, especially regarding how much labor men contribute to women's farms, versus how much they demand of women on their own. Despite these issues, the fact remains that, come the harvest, Akan households like those in Dominase – Ponkrum before the abandonment and in contemporary Yesunkwa are not dealing with a single pooled income, but rather with an aggregate of autonomous incomes.

Power becomes instrumentalized in Yesunkwa when men work around the economic autonomy of the women in their households by constructing a household economy that pools men's and women's incomes (figure 6). There is no basis for such an economy, or for the men's control of the other incomes in their households, in the land tenure or agricultural systems of the area. The justification for such an economy is that pooling the various incomes of the household creates a fund significant enough to guard against either the economic or the environmental instability that is threatened by local economic and environmental change.

What is unspoken in this justification is the fact that men tend to bring much more money into the household than women, and a pooling of incomes makes at least some of the OFE money available to the other members of the household. Though this pooling often leads to unjust uses of the household income (men often use much of this income for their own personal purchases, including alcohol and batteries for a radio that the owner tends to carry around for his own use), women do not contest the construction of a household economy (figure 6). I argue that men's control of OFE in

Men's claims	Women's claims
"The farm ... is for both of us."	"The money from my farm is for both me and my husband."
"The money from the farm is for me and my wife."	"I will keep all the money [farm and OFE income], until we divide it in two."
"The money from the farm is for both of us."	

Figure 6. Men's and women's claims about the control of household incomes in Yesunkwa.

Yesunkwa, and the disproportionate contribution to household safety and certainty OFE makes (women of such households, under normal circumstances, lack access to similar OFE opportunities), is a key differentiation emerging from household economic practice that links gender to financial contributions. This linking not only allows men to act upon the actions of the other members of their households, but also moves resistance to such action out of the realm of 'possible actions' for women.

The manifestation of power in the households of Yesunkwa, as in Dominase–Ponkrum before the abandonment, creates a power/knowledge that binds together economy, environment, and society. The clear market orientation both of men's and of women's agricultural strategies, and the apparent importance of OFE income in structuring the household economy and social relations, strongly suggests that the solution to any instability lies in a market orientation and the income such an orientation provides. However, the use of a market orientation to offset economic and environmental uncertainty also reinforces the importance of men in the household (as primary earners), and therefore buttresses the system of differentiation through which power is manifest in these households. Thus, this system of differentiation, although apparently anchored in economic disparity, is not determined by such disparity. Instead, this disparity is given form in different practices (agricultural practice, efforts to negotiate economic and environmental instability) as they are enacted.

Given the similarities between pre-abandonment Dominase–Ponkrum and contemporary Yesunkwa, environmental issues in Dominase–Ponkrum before the abandonment were likely to have been seen as issues manageable by economic means. In other words, it is likely that men's co-option of other incomes in their households in Dominase–Ponkrum before the abandonment was an action that served as both a condition for and a result of a local power/knowledge that bore great similarity to that in existence today in Yesunkwa.

But what of the very different pattern of social space seen in contemporary Dominase–Ponkrum? If we examine the political economy of the contemporary households in this area, we can see how the material changes in this context threatened not only the material well-being of the residents in this area, but also the very power/knowledge that produced understandings of the world and reproduced men's ability to co-opt women's labor and income. There is little OFE opportunity in Dominase–Ponkrum today (81% of those interviewed or surveyed make their living through agriculture alone, and there are no residents who rely on OFE alone for their livelihood) and, therefore, the current residents are much more closely tied to agriculture for their livelihoods than were past residents. Although the agricultural strategies of Yesunkwa suggest that, before the abandonment, agriculture in Dominase–Ponkrum was not strongly differentiated between men and women and was generally oriented toward market sale of farm outputs, the current agricultural strategies display an interesting gendered differentiation. Today, men tend to plant crops they perceive as useful for market

Table 2. Men's and women's agricultural production strategies in Dominase – Ponkrum, as materialized in farm composition and crop use.

Crop rank by popularity	Male-owned farms		Female-owned farms	
	crop	use	crop	use
First	cassava	for sale and consumption equally	cassava	for sale and consumption equally
Second	corn	for sale more than for consumption	corn	for sale more than for consumption
Third	pepper	for sale more than for consumption	pepper	for sale and consumption equally
Fourth	charcoal	for sale more than for consumption	tomato	for consumption more than sale
Fifth	palm	for sale more than for consumption	garden egg	for consumption more than sale
Sixth	tomato	for sale and consumption equally	charcoal	for sale more than for consumption

sale, while women tend to plant crops for subsistence production (table 2). At first glance, these agricultural strategies, when seen in a single household, appear to constitute a balanced strategy aimed at negotiating economic and environmental change. This is, however, a problematic interpretation, because in Dominase – Ponkrum today, as well as before the abandonment, men and women plant separate, autonomous farms. To turn these disparate strategies into a coherent, balanced whole requires the coordination of, and therefore the control over, these incomes on the part of some member of the household. As in Dominase – Ponkrum before the abandonment, men have this control.

Unlike their counterparts from before the abandonment, the men of contemporary Dominase – Ponkrum lack the economic authority conveyed by a disproportionate contribution to the household economy. Their incomes, though drawn from a market-oriented agricultural strategy, rarely reach the levels of those with OFE in places like Yesunkwa. The system of differentiations visible in the agricultural strategies of this context therefore appears to be the echo of the previous system of differentiations between men and women. That is, this system of differentiation, although again taking shape around gender, is based upon the orientation of individual agricultural production, but not necessarily on the different amounts of income individuals contribute to the household. The division of men and women into market and subsistence producers, respectively, is a structural moment that emerges not through preexisting categories, but in the ongoing actions upon actions in this context. Yet the emergence of this structure creates an opportunity for men to co-opt women's farm output, giving instrumentality to this system by arguing for the pooling of the different household incomes to create a balanced means of negotiating the unstable local economy and environment (figure 7). As before the abandonment, this pooling creates situations in which men used the pooled income of their households for personal purchases. In the contemporary context, however, there are clear voices of dissent from the women whose income is co-opted (figure 7), rising through reference to the land-tenure system that grants them autonomous control over their incomes. Men's lack of income dominance in contemporary Dominase – Ponkrum opens up opportunities for such resistance, as the women of their household do not necessarily gain greater safety and certainty from the man's financial contributions to the household than they could provide themselves.

Men's claims	Women's claims
"I control the shared income."	"The money from crops is for the person planting [those crops]."
"I keep the shared money, and have final say over it."	"The farm is for me, so I get the profits."
"The crop money is for both of us, but I decide what to do."	"The palm and the coconut are for my husband. The rest is for me."
"We spend the money on school fees, and share the rest between [husband and wife]."	"I use my crop money for buying fish for soup. [My husband] uses his for himself."
"The money is for both of us, but I make the decisions."	

Figure 7. Men's and women's claims about the control of household incomes in Dominase – Ponkrum.

This returns us to the social spaces of the household in contemporary Dominase – Ponkrum. Just as the separation of food preparation and food consumption spaces in the other villages is a marker of social roles within the household, so we can read the social roles within the households of Dominase – Ponkrum through the overlap of these spaces. Here, however, the use of social spaces appears to be an effort to undo the clear marking of social roles that once worked to reinforce the authority of men in this context. Whether this undoing is the work of men seeking to obscure their failing base of social and material capital, or of women seeking to make clear the failing authority of men over their households, these spaces reflect a changed status for men in this context, one in which their authority over their households is somewhat diminished and far more challenged than before.

Despite the voices (and spatial markers) of dissent in this context, men tend to control the various incomes in their houses to their own ends, though this often provokes domestic disputes. This happens because power/knowledge takes a different shape in the contemporary context than it did forty years ago. Before the abandonment, residents saw economic and environmental changes as issues to be solved by greater market involvement, and the greater incomes this involvement could bring. As we have seen, this focus on market involvement also served to support men's economic superiority in the household and, therefore, their capacity to co-opt the incomes of the members of their households. According to today's power/knowledge in Dominase – Ponkrum, economic and environmental changes are issues to be dealt with through a balanced approach incorporating both cash and subsistence strategies to weather any and all situations. Such a blended strategy requires coordination, which men provide by creating a household economy that serves to link the disparate incomes of men and women. This definition of economic and environmental change as an issue to be dealt with through a differentiated strategy rests on or produces a system of differentiations that are both the conditions for and the results of the economic roles of different members of the household, in this case their agricultural goals. Furthermore, this definition of economic and environmental change gives an instrumentality to these differentiations by creating a need to coordinate these incomes. Though voiced strongly, women's resistance remains verbal because they continue to plant for subsistence. Thus, women's subsistence farming represents their understanding of possible actions in the face of local power/knowledge, which defines the causes of and solutions for economic and environmental change.

Power/knowledge and migration

The comparison of Dominase – Ponkrum before and after the abandonment suggests that economic and environmental changes in the area have shifted men from a position of largely unchallenged authority, as heads of their households, to a more tenuous position. The power/knowledge undergirding household social relations that enable men's control over various household incomes has shifted. With this in mind, we can return to the complex issue of abandonment of this area to seek out differentiations in the abandonment, and explore how the changing power/knowledge informed particular migration decisions.

In Dominase – Ponkrum of the late 1960s, the households leaving the area first were headed by younger men (usually under the age of 30), or by widowed women. Those that left more than ten years after 1970 were exclusively headed by women who were leaving directly after the death of the elderly male head of household. The complexity of this migration response reflects not only the changing material context, but also the changing social context that challenged local power/knowledge.

I begin by considering the older (usually around 50 years old or more) men who, in choosing not to leave the village, kept their households in place for up to two decades. These men lived out their lives in Dominase – Ponkrum and when they died their widows relocated the family to sites like Yesunkwa (for the moment I will leave aside the widows, for they fit into another group of decisionmakers who left the village and are best addressed separately). Exposed to the same economic, food, and environmental insecurity as the other residents of the villages, the older men's decision to stay in Dominase – Ponkrum was closely linked to the struggle for control of household incomes, and indeed the household itself, in this context. The declining economic and agricultural situation in Dominase – Ponkrum meant less income in the hands of men, and therefore a reduced capacity for dealing with these changes (as economic and environmental change was addressed through market-oriented production under this power/knowledge). This in turn undermined their justification for control over the other incomes produced within their households. For older men, migration to a periurban context and the associated OFE market was not an opportunity, but rather a move to a competitive setting where they lacked established social networks and the skills (either a strong back or an education) needed for economic success. Thus, relocation to periurban or urban settlements would not serve to alleviate the *intrahousehold* pressure placed upon these men by the loss of cash income, because they lacked the ability to make up that income in the form of consistent wage labor that would offset the higher cost of living in periurban or urban settings.

On the other hand, as senior members of their lineages, these men had access to other local social relations that provided a basis for another system of differentiation that could be instrumentalized. They controlled not only the access of their households to land, but also the access to land for many households of men more junior than they. In a context where agriculture had always been the basis of the local economy, agriculture was rapidly becoming the only means of making a living. Thus, this access to land became a defining characteristic of *inter*household social relations, a characteristic with tremendous potential for the exercise of authority resulting in the collection of material resources (for example, the token payments, in cash and liquor, made by members of the lineage to the head of the lineage for access to land). These resources, both material and social, served as an alternative contribution to the well-being of the household. Consequently, for these older men periurban Ghana did not represent opportunity, but rather greater risk than staying in place despite great change in the material well-being of their households.

Given this perspective, we can examine the other migrating households and come to a richer understanding of their actions. In the households of younger males, the growing economic, food, and environmental insecurity drove migration as the resultant loss of income and resources threatened the local power/knowledge that authorized their co-option of household incomes. Within this power/knowledge, cash income was *the* source of safety and certainty. Thus, men's disproportionate contribution of such income to the household represents a justification for the cooption of household incomes. Without such cash income, men lacked a clear justification for this co-option. Periurban settings with access to OFE opportunity were doubly inviting for these men because they provided an opportunity to regain household income not only to offset material change, but also to buttress the power/knowledge that enabled their continuing access to the other incomes of the household. Therefore, although at first glance a rational choice model of migration decisionmaking anchored only in material changes and needs might appear to explain the decisionmaking for this set of households, in this case such a model oversimplifies the decisionmaking of this group.

Unlike their male counterparts, women at the head of households did not share a concern for maintaining social power. Nor were they forced to leave the area because of inheritance issues, because in Dominase – Ponkrum they had the right to continue farming land granted to them by their husband after his death. In the contemporary context a few such female-headed households in Yesunkwa still maintain farms in the vicinity of Dominase – Ponkrum, even after moving out of the area. Instead, it was the decline of the local transportation network (brought on by the end of logging, the enterprise that had maintained this network for motorized traffic) that most impacted women's decisions to move. A large number of contemporary residents of Dominase – Ponkrum, when asked why some residents left the village for other locations, responded "because there were no lorries." Women in these villages bore (and still bear) the responsibility for transporting crops and goods to and from market. The loss of access to improved transportation greatly increased their workload on the days of the week they had to go to market, as without such transportation they had to walk. Relocation to a periurban setting with easy access to transportation networks and to farmland reduced some of this transportation-related labor.

Though it appears that the environmental changes in this area had little effect on the decisionmaking of these women, the act of selling at market is closely linked to the same power/knowledge that shaped the migration decisions of other households in these villages. In the end, it is irrelevant whether cash income was the exclusive means of dealing with economic and environmental change in Dominase – Ponkrum or part of a balanced strategy aimed at the same goal: in either case, the cash component of the strategy required someone (women) to make trips to market to sell crops. Women's acceptance of this role implies an acceptance of the changing solution to economic and environmental change underlying the local power/knowledge. It is only through a disengagement with market sale that women in this context can break with local power/knowledge, the resultant understandings of environment and economy, and the solutions for dealing with changes in both. The understanding of environmental change under the local power/knowledge is therefore a subtle, yet crucial, part of this particular set of migration decisions.

Conclusion: power, environment, migration

In this paper I sought to show a nuanced view of the role of the environment in migration decisions seen in rural, marginal contexts by presenting a framework that allows us to examine how the environment, economy, and society are linked in migration decisionmaking. From this it is possible to evaluate the relative importance of

environmental change in a given case. With this framework I have built upon the minimalist perspective in environmental migration that one cannot productively think of environmental drivers of migration without considering economic and political considerations. I have also been able to employ, with this framework, a Foucauldian notion of power as an intrinsic part of social relations shaping or shaped by local understandings of environment, economy, and society. By examining the ways social differentiation is instrumentalized into a particular manifestation of power in a given context and the ways in which resistance to this manifestation forms, we can gain an entrée to particular power/knowledges and, therefore, to the worldview from within which actors make migration decisions. In this framework, environmental change is rarely a sufficient basis for the decision to migrate (the obvious exception being catastrophic change, such as volcanic eruption or coastal inundation) because environmental change is understood only through local power/knowledge.

However, we cannot ever exclude the environment from migration decisionmaking because it is a key element of any local power/knowledge and, therefore, always impacts migration decisions. All migrants are environmental migrants in some form or other. Some, like the younger men in Dominase – Ponkrum, are environmental migrants in that changes to the local environment, while perhaps not creating an imminent threat to their material well-being, were part of a developing threat to their social status. Other migrants, like the households headed by women in Dominase – Ponkrum, appear to have migrated for reasons that barely reference environmental change at all. Yet the apparently economic drivers of this migration are predicated on a larger power/knowledge tied, in part, to a particular understanding of the local environment.

The understanding of how environmental, economic, and political change are bound together in households through local power/knowledge affords us a key insight into the decisionmaking of migrants that helps us to better understand, and plan for, the initial decision to migrate. Further, a nuanced understanding of conflict and power at the level of the household provides an understanding of migration decisionmaking that offers insights into future migration paths for those moving to periurban or urban contexts.

To move away from an environment-only approach to the presentation and study of the role of the environment in migration and refugee decisionmaking is not to remove the environment from these conversations. Rather, in many cases, integrating the environment into a minimalist perspective that carefully considers how the environment becomes integrated with economic and political considerations in a particular context may improve the visibility of the role of environment in migration. The environment, and changes in that environment, is an important part of everyday life in rural, marginal contexts. To put the environment in its place in migration studies is to create more nuanced understandings of its importance to residents of such contexts—understandings not easily rebuffed by skeptics.

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