

Cultivated Food Plants: Culture and Gendered Spaces of Colonists and the Chachi in Ecuador

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Abstract

Colonists and indigenous groups living in and around Ecuador's Mache-Chindul Reserve cultivate various subsistence food plants. The data reveal various differences between the two groups in regards to gendered agricultural spaces. Colonists maintain distinct planting areas, while the Chachi do so less. While each group plants some of the same crops, their basic staples differ: rice for the colonists and plantains for the Chachi. The gendered spaces are also distinct. In colonist households, women take primary care of plants closest to the home, while men's domain is furthest from the home. Among the Chachi, the reverse pattern is the norm. This spatial organization is looked at in the context of previous theories regarding gender and agriculture. These distinctions are important to be considered in the context of better understanding gendered space among rural groups, and also for developing and implementing effective land use programs in and around protected areas.

Keywords: *Ecuador, Chachi, gendered space, agriculture.*

Resumen

Los colonos y grupos indígenas que viven dentro y alrededor de la reserva ecuatoriana Mache-Chindul cultivan varias plantas de subsistencia. Mis investigaciones muestran importantes diferencias entre los dos grupos relativas a los espacios agrícolas y las relaciones de género a su interior. Los colonos mantienen zonas plantadas separadas y claramente diferenciadas, los Chachi en menor medida. Aunque cada grupo siembra algunos de los mismos cultivos, sus productos básicos son diferentes: arroz para los colonos y plátanos para los Chachi. Las relaciones de género dentro de los espacios agrícolas también son distintos. En los hogares de los colonos, las mujeres cuidan las plantas más cerca de la casa, mientras los hombres tienen sus dominios más lejos. Entre los Chachi el patrón es el contrario. Se examina esta organización espacial desde perspectivas teóricas sobre género y la agricultura. Tales diferenciaciones son importantes para un mejor entendimiento del espacio afectado por el género dentro grupos rurales, y también para el desarrollo e implementación de programas de uso del suelo efectivos dentro y alrededor de áreas protegidas.

Palabras claves: *Ecuador, Chachi, espacio y género, agricultura*

Introduction

This study explores the spatial dimensions of cultivated plants through gendered and ethnic space, as an aspect of ethnoecology (Toledo 1992, 2002; Davidson-Hunt 2000) and ethnobotany (Balick and Cox 1996; Berlin 1992; Cotton 1999; Martin 1995). Examining the organization of cultivated plant space is of interest to anthropologists, ethnobotanists, and geographers (Doolittle 2000, 2004; Kimber 1973; Padoch and De Jong 1989; Winkleprins 2002; Works 1990). While some authors have paid particular attention to gendered spaces in relation to planted vegetation (Boserup 1970; Burton and White 1984;

D'Andrade 1966; Ember 1983; Maclachan 1979; Minge-Klevana 1980; Niranjana 2001; Rocheleau and Edmunds 1997; Sanday 1973; Skar 1993; Winklerprins 2003), I extend the analysis by considering gendered roles in two ethnic groups, thus complementing the existing body of research. Including ethnicity and gender is becoming increasingly important when looking at land use and gendered roles, especially in terms of family farming. As Rocheleau (1996: 225) writes: "Ethnicity, race, class and locality all shape constructs of gender and frame the terms of women's every-day participation in farming."

I describe the ethnoecology of two ethnic groups focusing on the location, planting, maintenance, and harvesting of cultivated food plants in fields, gardens, and homes. I hypothesized that the two groups would demonstrate similar patterns: women working in the spaces closest to the home, and men working in areas further away. The idea for this study arose through my realization that attitudes about, and practices related to, planted spaces varied between colonists and indigenous people in more significant ways than the current literature suggests (INEFAN 1996: 98). While working with a group of colonists and indigenous people, the Chachi, on a project involving forest plants, I noticed a pattern. The colonists (mostly male) would often linger in their cultivated fields on the way to the forest. They were enthusiastic to talk to me about their fields, their planting, and their harvesting. On the other hand, the Chachi rarely discussed their fields with me, and would instead proceed straight into the forest. In light of the fact that the majority of the literature written about the area and the people living there consider these groups to be farming in a similar manner (INEFAN 1996, 1998, 1999), I felt that further investigation was warranted. I decided to explore whether differences existed and, if so, to identify them and examine their location extent.

The study area particularly merits investigation. Most research involving people living in the rain forest in Latin America, especially Ecuador, focus on the Amazon region (e.g. Coomes and Barham 1997; Peres and Zimmerman 200; Padoch 1991; Perreault 2003; Putz et al. 2001; Redford and Stearman 1993; Rhoades et al. 2000; Steel 1999). By contrast, this study involves the people and land in and around a protected area in the understudied region of northwestern Ecuador. Although this area of Ecuador is less well researched than the Amazon, it is now being targeted as a particular point of interest. Not only is it considered a hot spot of biodiversity, but a mere 5% of this type of lowland rainforest remains in Ecuador (Dodson and Gentry 1978, 1991; Gentry 1982; Myers 1988; Parker and Carr 1992; Sierra 1994).

Geographical Setting

The study area is in the Mache-Chindul Ecological Reserve in northwestern Ecuador, principally in the province of Esmeraldas, with its southernmost part extending into the province of Manabí (Figure 1). Mache-Chindul comprises 111,000 hectares that were designated as an Ecological Reserve in 1996 (INEFAN 1998). The forest type for most of the area is considered lowland rainforest, characterized by tall, dense, and evergreen vegetation. (Gentry 1992; INEFAN 1996; Aguirre et al. 2000; Gavilanes et al. 2000; Neill 2003).

The population living in and around the reserve includes two groups, colonists and indigenous people. The *mestizo* (people of mixed European and indigenous ancestry), who migrated to the area from the provinces of Loja and Manabí, and Afro-Ecuadorians who came primarily from the Canton of Esmeraldas (INEFAN 1996, 1999, Alarcón 2000) make up the groups of colonists. The second group is the Chachi. Approximately 7,600 Chachi live in the Esmeraldas province (Alarcón 2000; Barrett 1994; Benítez and Garces 1990; Carrasco 1983; INEFAN 1996, 1999; Maldonado 1988; Medina 1997; Naranjo 1986; Nova 2001; Sierra 1994; West 1957). Although technically the Chachi are colonists



Figure 1. Location of the Mache-Chindul Ecological Reserve

as well, having moved to the area in the 1940s, the NGO's, the Chachi themselves and surrounding groups do not consider this indigenous group to be colonists. The two groups maintain different ethnic identities. Although there is some contact between the colonists and the Chachi, there is almost no intermarriage. The communities are made up of distinct ethnicities, both by self and external identification.

The Chachi and the colonists are subsistence farmers, enhancing their livelihood through hunting and some gathering. The land quality is similar in the areas where both groups live. The soils in western Ecuador on which these forests grow are mostly alluvial and volcanic (Dodson and Gentry 1991). Both groups live along river banks, with cultivation beginning along the river, and then extending inland. Housing is similar, with both groups living in homes made from forest materials.

Economically, especially in terms of landholding, the two groups are in different situations. Contrary to what some might think, the indigenous group, the Chachi, have more land than do the colonists. Furthermore, the Chachi also receive more government help for school assistance, building classrooms and school supplies, and also for medical aid. Thus, although economically both groups are rural subsistence farmers, the Chachi

do receive more aid to support certain needs, and have more land with which to work. For farming, the Chachi utilize only about 20% of their land, leaving the majority as forest.

Methodology

Data were collected from initial observations and discussion with 27 families: 11 *mestizo*, nine Afro-Ecuadorian, and seven Chachi over a 12 month period, from December 2000 to December 2001. In January 2004, I made a two week follow up trip and conducted more structured interviews with 8 colonist and 4 Chachi households (Figure 2).

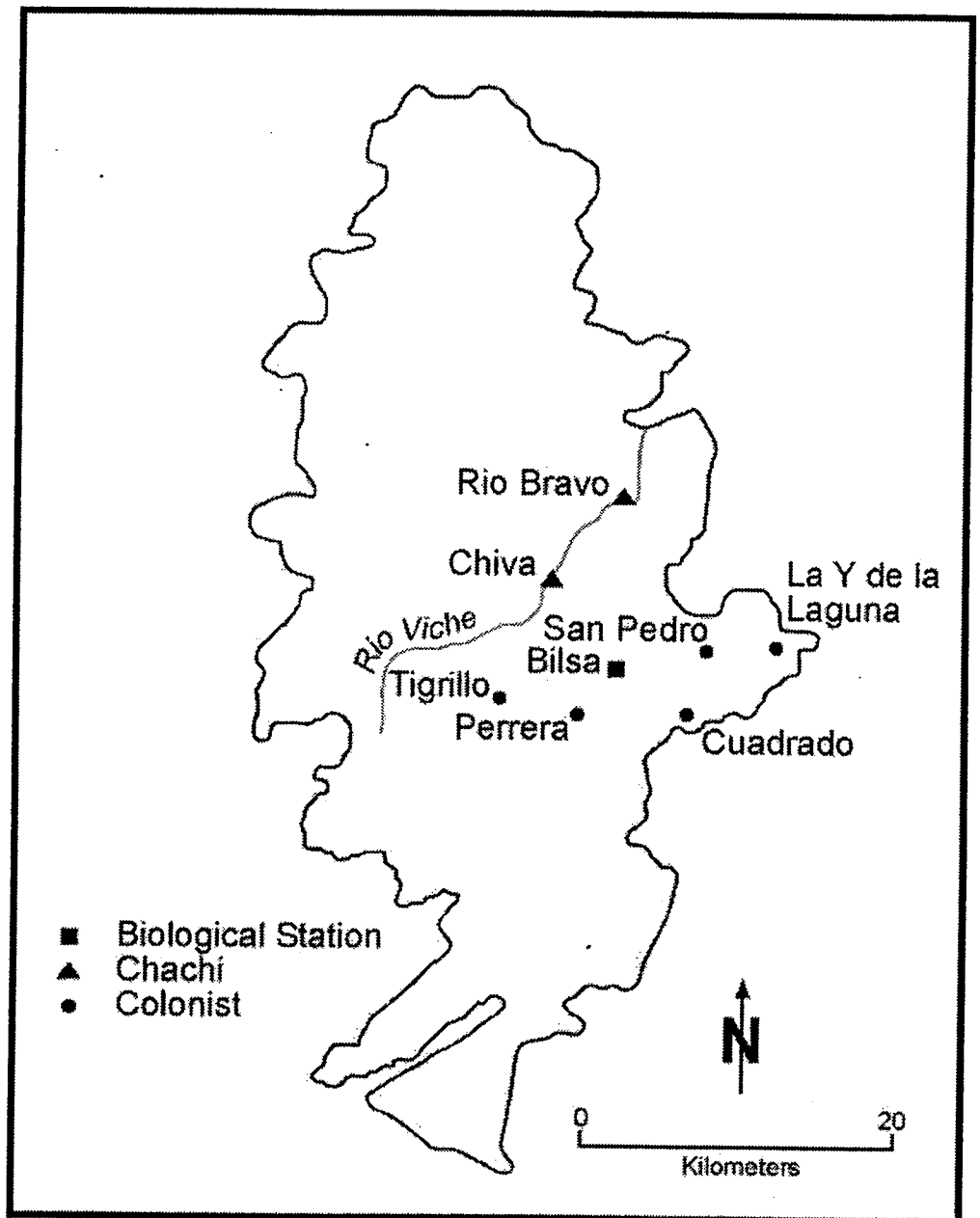


Figure 2. Location of study sites in the Mache-Chindul Ecological Reserve

My criteria for choosing colonist families included making sure they lived in communities that were within two days walking distance from my base and selecting villages

where I had contacts. I picked the key Chachi community on the Viché River, because of its proximity to the Mache-Chindul ecological reserve.

Interviews (both preliminary and follow-up) were semi-formal and informal (Alexiades 1992; Bernard 2002; Cotton 1999; Martin 1995). I directed the majority of my questions towards the father and mother of each household. These meetings took place in the interviewees' homes, fields, and gardens. The other family members and/or neighbors who were usually also present aided in giving consensus to the information I collected (Heinrich et al. 1998; Reyes-García et al. 2003). Throughout the study period I lived with nine families. This added valuable casual discussion and observation to my data, not only about plant cultivation but also about food plant consumption. My main research interest for this project is to learn about the spaces that each group uses for cultivation. I want to understand how they divide and name different planting areas, what they cultivate in each plot, and how males and females utilize these plots of land.

Results

Space differentiation and planted species

The colonists maintain at least four distinct growing areas identified as: *fincas*, *huerta familiares*, *eras*, and *maceteros*. I will describe the plants grown in each space, beginning with that furthest from the house, the *finca*. The *fincas* are large fields located the greatest distance from the home (Figure 3).

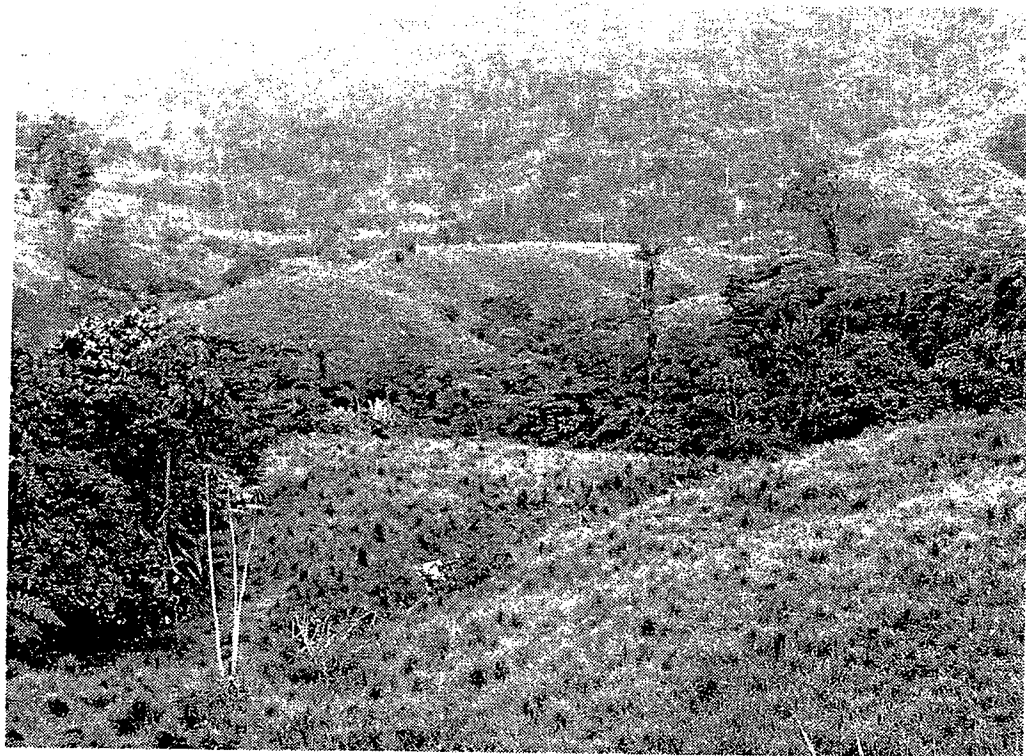


Figure 3. *Finca* in San Pedro planted with grass for grazing cattle.

They can be as close to the residence as a five minute walk (less than one Km), or as far as a 30 minute walk (up to 5 Km). The *finca* usually ranges in size from 2-15 hectares. Although there is some overlap between what people plant at the four sites, the most common plants found in *fincas* are rice, corn, beans, squash, plantain, banana, and grasses for grazing livestock. Some families also engage in limited cash crop cultivation of cacao, and

coffee. Although children do eat the fleshy mesocarp surrounding the cacao seeds, the villagers grow cacao primarily to sell the seeds for chocolate.

Moving closer to the house, one arrives at smaller fields, usually smaller than one hectare, called *huertas familiares* (Figure 4).

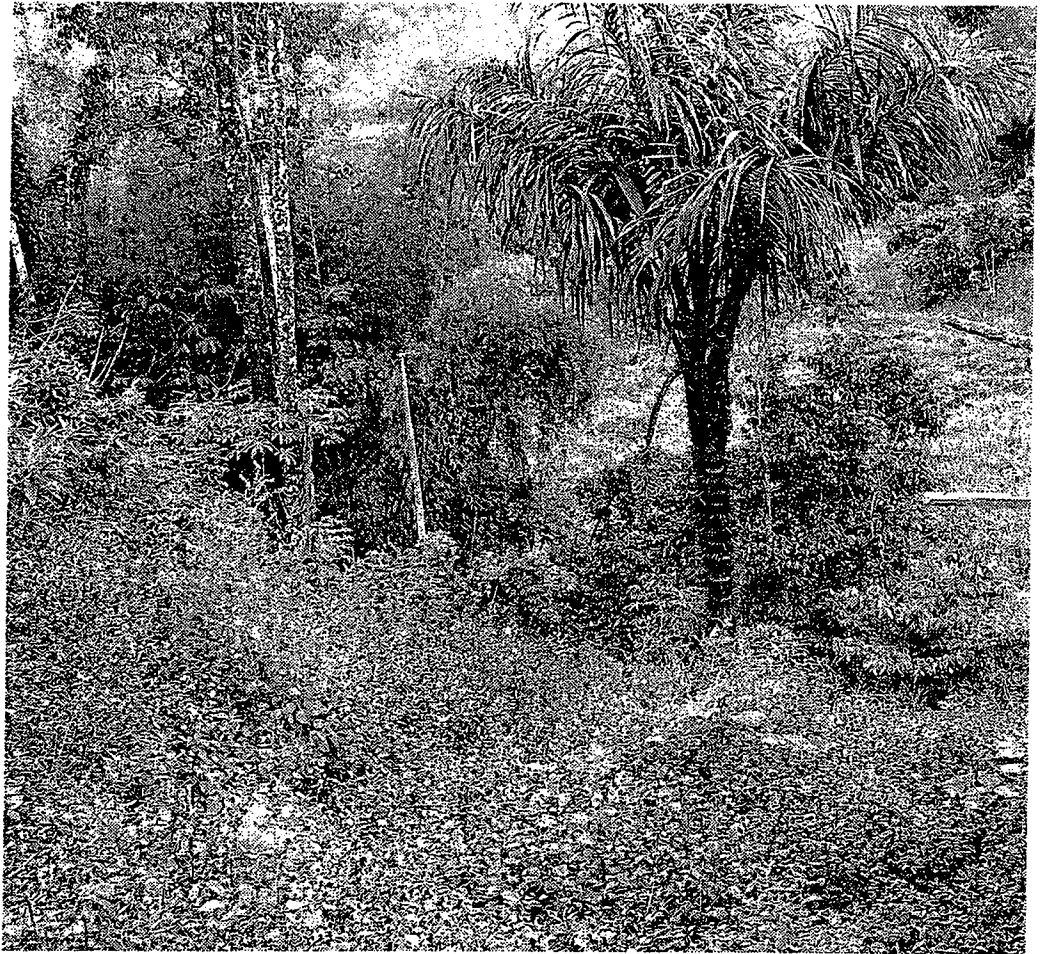


Figure 4. *Huerta familiar* in Cuadrado, showing palm fruits, manioc and herbs.

The foods that colonists plant in these areas either have what is called a *ciclo corto*, a short growing cycle, or are fruit trees. The crops most often found in the *huertas familiares* are cassava, peanuts, cucumbers, and peas. The fruit trees grown in this area can include coconut, papaya, carambola, pineapple, and citrus.

Moving closer to the home are the *eras*, raised planting platforms next to the house at about 1.5 meters high (Figure 5). The extra effort of building and maintaining planting areas raised above the ground is expended for two main reasons: First, its height protects plants from the family's own animals. Second, farmers create a rich soil by placing newly decomposed material from rotting forest logs and leaves on the platforms.

Colonists grow two groups of plants in the *eras*. The first consists of starter plants. The farmer will grow trees and bushes from seed, such as papaya, carambola, and rice, and when these have passed through the more delicate phase of their growth, the farmer will transplant the seedlings into the *finca* or the *huerta familiar*. The second group of plants consists of species that grow to maturity and remain there, to be periodically harvested. These typically include plants such as garlic, onions, and peppers (hot and sweet).

The colonists' fourth planting area is the *macetero*, which is closest to the house,



Figure 5. *Era*, raised planting platform, near to colonist's home in Tigrillo. Fruit tree seedlings waiting to be transplanted growing in the bed.

often so near that it is part of the house itself, including window boxes and/or various containers (plastic buckets, old cooking pots, plastic soda bottles) that people build onto or hang from their windows, porches, or outside walls (Figure 6).

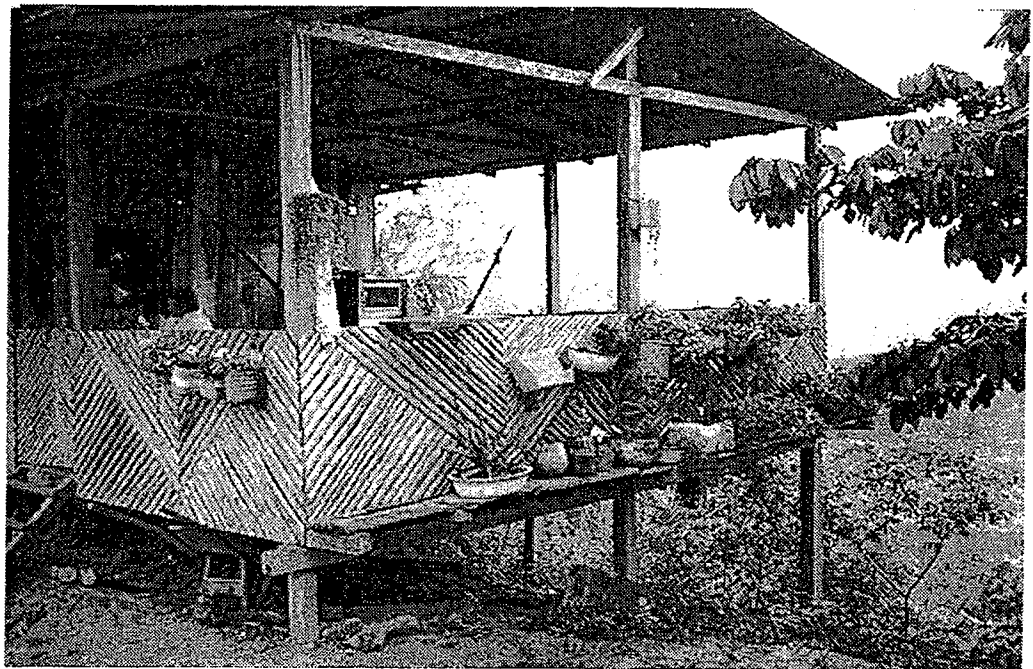


Figure 6. *Macetero*, hanging containers on the home and window boxes.

While most of the plants grown here are ornamentals or medicinal, some food plants, such as mint, were encountered.

In contrast to the colonists, the Chachi do not appear to maintain such distinct differentiations between their growing areas. Although almost all Chachi do have *chacras*, the equivalent of the colonists' *fincas*, few have delimited *huertas familiares*, *eras*, or *maceteros*. The Chachi also differ from the colonists in what they choose to plant. They raise fewer fruits and medicinal plants, because they are more likely than the colonists to gather these from the forest. They both have more forested land from which to collect, and have extensive knowledge about useful wild plants.

One of the most notable differences between colonists and Chachi is that the latter rarely plant rice. Rice is a staple crop for the colonists, central to their diet and their *finca*. Although one Chachi man told me, "We are not cultivators, and rice is a lot of work," the Chachi do like rice, and a few individuals plant the crop. However, the Chachi will more often either go without this grain or trade for it with the colonists. The Chachi are skilled weavers of the Panama hat palm (*Carludovica palmate*), and will trade woven fans and baskets to the colonists in exchange for rice. The Chachi do, however, have a different staple crop, the plantain.

Gendered agricultural space

In addition to the differences between the colonists and the Chachi in species cultivated, and organization of growing areas, differences in the gendered agricultural space of the two groups also became clear. I assumed that women would occupy the space closest to the home, since women in Latin America often have their main responsibilities centered in the home, and are often considered housewives, not farmers (Arizpe et al, 1993; Guzman et al. 1991; Momsen 1993; Ronderos 1992; Townsend 1995). An example of this spatial identity can be found in Rocheleau's study in the Dominican Republic, where women's areas were closer to the home, and men's further away. However, as Rocheleau (1996: 227) also writes that: "There is often a discrepancy between outside gender stereotypes and daily lives," I wanted to explore the reality of the gendered space within these two ethnic groups. As I hypothesized, *mestizo* women's responsibilities for plants tended to be closer to the home. The *maceteros* are almost exclusively tended by women, and the men work in the area furthest from the home, the fields. Although women would often help the men plant rice and other crops, men were more likely to take charge of field clearing, crop maintenance, and harvesting.

The *huertas familiares*, the sites between the *finca* and the *macetero*, though predominately in the care of the females are in certain ways shared spaces. Often men will clear and help plant, with women taking primary care of maintenance and harvesting. The gendered aspect alters slightly when it comes to the *era*. Here, men are often in charge of construction, planting, and maintenance. However, this is not surprising given that many of the plants in these raised beds will be transplanted into the fields furthest from the home. Overall, the data on the colonists showed a gendered spatial pattern that I had expected.

Among the Chachi, the ways in which gender determines primary responsibility for agricultural spaces differed markedly from the colonists. In some ways, responsibilities by gender are the opposite of those the colonists exhibit. Because the Chachi have few potted plants, most women do not have plants close to the home to care for. While rice – planted in *fincas* that are the domain of men – is the focal point of the meal for the colonists, the plantain is the Chachi's staple food. Like the colonists, the Chachi grow this staple crop in fields furthest from their homes. However, it is the Chachi women who bear primary responsibility for these fields. Men help clear the forest, and take responsi-

bility for the maize and the few other *chacra* plants grown there, but the plantains are planted separately and are an almost exclusive domain of the women. Usually when a girl reaches puberty, she is given some land for plantains. The Chachi women plant the plantains, care for them, and harvest them. They often carry a heavy load of plantains to the canoe and villages, using a tumpline made from the mid-vein of a banana leaf.

The gender division for this kind of work is so extreme that in traditional Chachi communities, if a man's wife dies, he has lost his main source of sustenance. Traditional communities handle this situation through tribal law. According to tradition, in certain cases an unmarried woman caught committing adultery may be given to a man whose wife has died. Chachi law stipulates that her plantain field, and the responsibility to produce from this land, come with her. Barrett (1994) writes of this phenomenon, which was confirmed by my interviews (Figure 7).

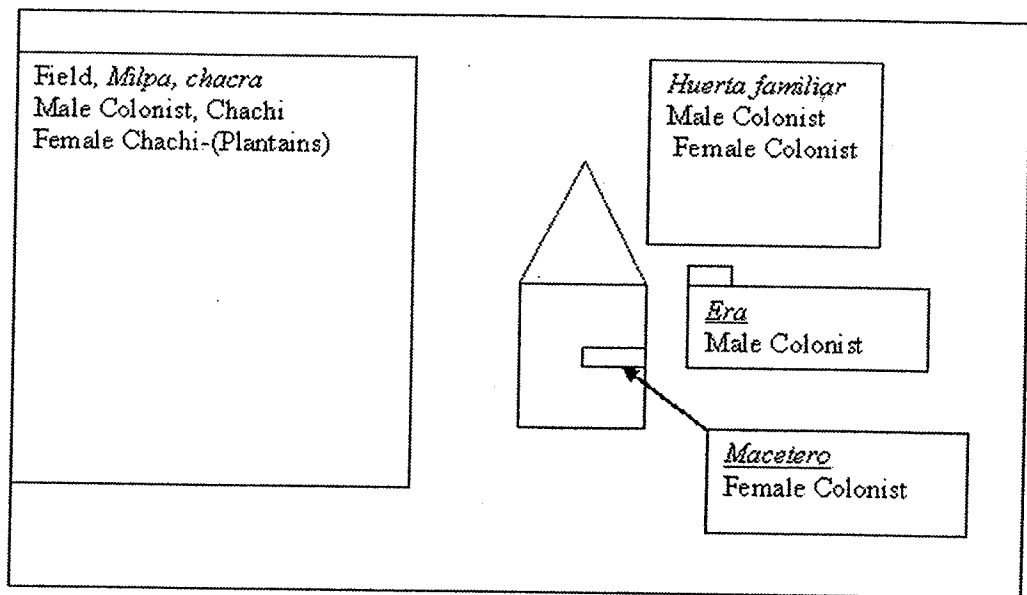


Figure 7. Diagram of gendered agricultural places and spaces for colonists and Chachi.

Conclusions

This study provides evidence that although both the Chachi and the colonists are subsistence farmers and live on similar land close to and within the Mache-Chindul Reserve, they have distinct agricultural practices that include both differentiated sites of crop production, as well as gender-based relations to such production. When looking at the results from this study, explanations as to why this phenomenon is occurring can be partly illuminated by certain theories surrounding gendered agricultural spaces. One theory which can explain why Chachi women take a more active role in farming in the fields, and thus are further away from the house than colonist women, was proposed by Boserup (1970), and has since been tested and confirmed by numerous researchers (Ember 1983; Minge-Klevana 1980; Sanday 1973;). The basic idea is that the female contribution to agriculture declines with agricultural intensification. Intensification can be defined as, shortening of the fallow (Boserup 1965; Netting 1968), mound building (Waddell 1972), terracing (Richards 1939), green manuring, using animal manure, and transplanting (Geertz 1963). In this case, although both the colonists and the Chachi farm, the Chachi refer to themselves as being less farming oriented than the colonists. Also, in less intensive farming systems, men may be involved in other activities, such as hunting (Em-

ber and Ember 1971; Sanday 1973). The Chachi do hunt more than the colonists, as they have fewer restrictions about what they can hunt, and have more land on which to pursue this activity. Thus, the colonists are more likely to demonstrate agricultural intensification than are the Chachi.

Another related theory which could partially explain the trend noted in this case study, has to do with cereal crops. Often with agricultural intensification cereal crop production is increased. With more cereal crops, women then spend less time in the fields and more time preparing the grain (White and Burton 1984). Since the colonists are planting rice, and the Chachi for the most part are not, this could explain why the colonist women are more divorced from the fields, than are the Chachi women (There is the noted exception to this theory that in Asia, with wet rice planting, women spend more time in the field, than do men). An example of this theory in Latin America is in highland Peru. Although women help with the planting of the grain, corn, the area in which they dominate is in the sorting and the storing of the produce. These activities increase their responsibilities near to the home and outside of the field (Skar 1993).

Further looking into possible explanations as to why the gendered spaces differ between the two groups, it is appropriate to look at the husbandry of animals. An idea has been put forth, that with the increase in domesticated animals, males tend to spend more time in the field and women near to the home (D'Andrade 1966). This spatial location of males and females may be attributed to the fact that the animals require a certain amount of upkeep. The chores of milking, in the case of cows and goats, and also herding in certain developing world countries, including Latin America, are tasks that women most often perform (Burton and White 1984; Maclachan 1979; Niranjana 2001; Skar 1993).

The exception to this theory pertains to pigs. Pigs can often forage for themselves without a formal pasture, and they do not need to be milked. Thus, the raising of pigs, would not necessarily reduce the women's role in the fields away from the home. Most colonists raise at least some cattle. The Chachi on the other hand have few if any cattle. Likewise, colonists have few pigs. In one community, people are only allowed to have one pig, thus most people find it easier not to have any. The Chachi however, have no restrictions on pig ownership, and most families own many pigs. Thus, according to D'Andrade's theory the ownership of cattle would reduce colonist female activity in the field, yet the pigs that the Chachi raise would not reduce that of the time spent in the fields by the Chachi women.

Understanding gendered space in relation to planting spaces, and possible reasons why certain phenomena occur, is vital when looking at the role of women in the family, in the field, and the home. How people define and occupy their spaces clearly is related to ethnicity and what is planted, which are in turn are interrelated to each other. As Hufton and Kravaritou (1999) write: "work is a set of social practices where gender identities and gender relations are constructed (p.70)." Thus, as we better understand gendered spaces throughout the globe, this study brings forward rural people of low economic and social status, and their working realities. This research adds to those studies seeking to increase our understanding about how social identities are determined by space, and in turn how space reflects social identities (Niranjana 2001).

Furthermore, these findings about the differences between the agricultural practices of ethnic groups are crucial when working with people in and around protected areas. Various organizations are working on land use programs with reserve inhabitants. In order for these projects to be effective, all interested parties need to be well informed about how these inhabitants actually use the land, both in terms of their physical practices and their cultural beliefs and patterns. Even though the colonists and the Chachi occupy similar land and have comparable subsistence activities, the findings of this study indicate

that it is crucial to include the appropriate people within each community in developing and implementing land use programs. Organizations may need to approach different gender groups depending on whether they are talking with colonists or with Chachi. Organizations will also need to consider the distinct spatial arrangement of agricultural practices in determining what plant products to introduce or improve. Ultimately, understanding and appreciating the distinct spatial and gender divisions underlying plant cultivation among various ethnic groups can only serve to help interested parties to both protect and effectively use forested and cleared land in and around designated reserve areas throughout Ecuador and around the world.

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