Muisca settlement organization and chiefly authority at Suta, Valle de Leyva, Colombia: A critical appraisal of native concepts of house for studies of complex societies

Hope Henderson a,*, Nicholas Ostler b

a National Science Foundation, International Post-Doctoral Research Fellow, Transversal 14A No.115-58, Apt. 501, Bogotá, Colombia
b Foundation for Endangered Languages, Batheaston Villa, 172 Bailbrook Lane, Bath BA1 7AA, England, UK

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Abstract

This paper argues that native categories of the house are useful analytic units when coupled with models of complex society that distinguish between individualistic and institutional sources of political authority. This approach strengthens archaeological research by examining objectively the scale of political inequality associated with house societies. We discuss the complex associations between the Muisca sense of place, residential architecture, and political authority and propose hypotheses to evaluate whether ideas about house and place were a source of either individualistic or institutional political authority. By documenting whole settlement patterns at Suta, in the Valley of Leyva between the 11th and 17th centuries, this paper analyzes the degree to which Muisca chiefs at Suta drew on ideas about the house to directly control the internal spatial organization of a whole settlement. Systematic shovel test probes are used to identify residential locations, internal settlement organization, and site boundaries. Spatial analysis of these house locations suggests that the formation this nucleated settlement beginning in the 11th century was a product of inter-house alliances and individualistic patterns of political leadership. The results of this study suggest that political elites at Suta drew upon the Muisca house, a multifaceted symbol, to legitimate their political authority and create a central place with their own residential compounds, but that they had no direct control over other houses.

Keywords: House societies; Complex societies; Political inequality; Settlement patterns; Households; Nearest neighbor analyses; Muisca; Chibcha Corporate Groups; Colombia

This study contributes to recent research on house societies (Carsten and Hugh-Jones, 1995; Helms, 1998; Joyce and Gillespie, 2000) by using the Muisca concept of house, or gue, as an analytic unit for interpreting archaeological settlement patterns and for expanding on models of complex society that distinguish between individual and institutional sources of political authority (Blanton et al., 1996; Drennan, 1995a; Renfrew, 1974). The Muisca house was an expansive concept, a multifaceted symbol reflecting a wholistic Muisca world view that similar to other house societies (Carsten and Hugh-Jones, 1995) incorporated broad notions of place, time, and the body. We examine a series of Muisca words that incorporated the house concept to understand the complex associations between house, place, and political authority and the relevance of these native
concepts to individualistic and institutional sources of political authority. Moreover, we evaluate the degree to which Muisca chiefs drew on these ideas and directly controlled the internal organization of settlement space at the Muisca archaeological site of Suta, in the Valley of Leyva, Colombia. To these ends, we measure the spatial distances between houses, continuity in house location, and the construction of public, non-residential spaces within a single settlement during the Early Muisca Period (1000–1200 AD) and the Late Muisca Period (1200–1600 AD). This analysis of Muisca residential and whole settlement patterns is based on the complete mapping of Suta. Topographic mapping of the 33-ha study area and 1225 systematic shovel test probes was used to identify residential locations, settlement boundaries, and unoccupied areas within the settlement.

These analyses of indigenous vocabulary, archaeological settlement patterns, and models of complex society respond to recent theoretical debates on the house, an anthropological concept first proposed by Levi-Strauss and subsequently reconceptualized by social anthropologists working in Southeast Asia and South America (Carsten and Hugh-Jones, 1995) that recognized the primacy of native categories over problematic kinship classifications (e.g., Kuper, 1988, 1993). This work, while recognizing an intellectual debt to Levi-Strauss’s notions of the house, departs from recent analyses of house societies and debates about the utility of native concepts of house for anthropological analyses of generalized phenomena (Carsten and Hugh-Jones, 1995; Helms, 1998; Joyce and Gillespie, 2000). We argue that native concepts of house, such as *gue*, are effective and interesting units of analyses for challenging us to understand societies in their own terms and for directly confronting the analytic limitations that stem from our own disciplinary divisions. Moreover, understanding the multiple meanings of the Muisca house provides a culturally specific context for evaluating Muisca leadership strategies.

**Political authority in Muisca complex societies**

The archaeological history of the eastern highland savannah of Colombia (Fig. 1) is broadly divided into six time periods: Paleoindian (10,450 BC–2050 BC), Archaic (2050 BC–400 BC), Herrara or Formative (400 BC–1000 AD), Early Muisca (1000 AD–1200 AD), Late Muisca (1200 AD–1538 AD), and Colonial (1538 AD–1820 AD). The first signs of political inequality and the formation of chiefdoms dates to the Early Muisca period (1000 AD–1200 AD), beginning in the 11th century AD, and is characterized as a period of social and political competition between chiefs of small, independent settlements. Several different lines of archaeological evidence support this interpretation: (1) the introduction of a diversity of decorated serving vessels, some associated with corn beer, that are interpreted as evidence of feasting (Boada, 1998; Kruschek, 2003; Langebaek, 2001); (2) the regional proliferation of numerous small settlements some of which are located in easily defensible areas (Langebaek, 1995) or areas of prime agricultural land (Langebaek, 2001); (3) the beginning of mummification practices (Langebaek, 1995); and (4) the introduction of gold artifacts made for offerings and personal adornments (Langebaek, 1995, 2000). Based on this evidence, investigators argue that political authority was largely dependent on individual leadership skills, related to religious authority, and limited to single communities (Boada, 1998; Kruschek, 2003; Langebaek, 2000). It is only during the Late Muisca period (1200 AD–1600 AD) that investigators begin to see evidence that political authority was more centralized and organizationally complex with the formation of two-tiered regional settlement hierarchies (Langebaek, 1995, 2001). Raised field agriculture and stone monuments are also reported within the Muisca area (Broadbent, 1965, 1968, 1969), though investigators have only begun to date these features. Archaeological evidence that political authority was tied to wealth differences within Muisca populations is thus far scarce though a small degree of economic differentiation has been documented between households (Boada, 1998; Kruschek, 2003). Likewise, analyses of Early and Late Muisca period tombs associated with three different Muisca settlements indicate only a very modest scale of social differentiation and no evidence of individual wealth differences (Boada, 2000).

To what degree did Muisca chiefs control political, territorial, and economic organization? The lack of archaeological evidence of wealth differences and regionally integrated territories contrasts with historic sources

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1 See Carsten and Hugh-Jones (1995) and Gillespie (2000) for critical reviews of Levi-Strauss’s writings on houses and house societies.


3 Langebaek cites the five earliest dates for gold artifacts in the Muisca area as falling within the end of the Herrera period, between 520 and 960 AD (Langebaek, 2000, p. 30), which is more generally suggestive of status differences related to gold offerings during the end of the Herrera period.
from the 16th century that describe powerful regional chiefs who controlled or benefited from staple food surpluses, specialized craft production of gold and textiles, and/or trading relationships with neighboring societies for gold and cotton (Langebaek, 1987). Spanish conquistadors described the indigenous polities of the eastern highland savannah as consisting of either two (Bogotá and Tunja) or four regional chiefdoms (i.e., Bogotá, Tunja, Sogamoso, and Duitama) and another area of smaller independent chiefdoms, each composed of single communities (Broadbent, 1964). These same historic sources recorded how Muisca chiefs received tribute of textiles and gold, and mobilized labor for working their agricultural fields and building their large and enclosed residential compounds (Broadbent, 1964; Langebaek, 1987; Tovar, 1980). In return, elites offered corn beer and gave away cotton cloths. While referring to subordinate political figures, *uta* and *zibyn* leaders, historic sources do not clearly describe internal political hierarchies or polity structure (see Broadbent, 1964; Gamboa, n.d.; Tovar, 1980).

Ethnohistoric sources that refer to subordinate political leaders suggest that Muisca chiefs managed alliances with a number of small politically allied groups (Fig. 2), some of which shared kinship ties (Boada, 1999; Broadbent, 1964; Londono, 1994; Villamarín and Villamarín, 1975). The chief was a leader of a single community and also the leader of at least one internal division of the community, the *zibyn* (González de Pérez, 1987, p. 209; Quesada Pacheco, 1991, p. 48). In political terms, a single chiefdom community was internally divided into several capitancias or *zibyn*, which in turn encompassed several *uta* groups, or capitancias menores, each with an *uta* leader (González de Pérez, 1987, pp. 209, 292, 296; Quesada Pacheco, 1991, pp. 48, 82). Each *uta* group consisted of several households, which in Fig. 2 are represented by *gue* or residential structures. This nested schema of social and political organization was not absolute however, because in some cases, *zibyn* groups did not incorporate smaller *uta* groups (Gamboa, n.d.; Kurella, 1998, p. 195; Langebaek, 1987, p. 27) and chiefs also made direct alliances with individual houses.

![Fig. 1. Map of Muisca area and other chibcha language areas in Colombia.](image-url)
that were not part of zibyn or uta groups (Gamboa n.d.). Some uta leadership positions were hereditary (Broadbent, 1964, p. 93), but other uta positions were appointed by chiefs (Gamboa, n.d., pp. 15–16).

The political authority of Muisca chiefs seems to have involved very little organizational complexity and instead depended a great deal on individual alliances with other leaders and houses. Thus, one hypothetical interpretation of Muisca complex societies is that political elites had the power to organize activities for their own benefit but that they had no direct control over general productive or economic structures. This distinction, originally noted by Fried (1967), means that chiefs did not directly control or exclusively manage general organizational structures, such as production (Ames, 1995; Hastorf, 1990; Henderson, 2003). It may be that Muisca polities were similar to factions (Brumfiel and Fox, 1994), that chiefs were “aggrandizers” (Hayden, 1995), or charismatic leaders but there is not much evidence that chiefs took on a managerial role (Service, 1962) redistributing goods and services in order to integrate domestic groups and communities into regionally organized political territories. Langebaek (1987) notes that the Muisca concept of tribute, tamsa, was not about the accumulation of personal wealth or control over productive schedules and products but that instead chiefs had to redistribute tamsa goods to religious specialists, political subordinates, and to the general populace, suggesting that tamsa was more about creating relationships than obtaining material goods. Allegiances to regional chiefs were fluid and contested during the 16th century (Broadbent, 1964, pp. 15–17), which further suggests that chiefs created and depended on a political econ-
omy of competitive generosity to maintain political allegiances.

The central problematic to this study concerns the organizational capacity of chiefs in the creation and internal spatial organization of numerous small, nucleated settlements beginning in the 11th century AD. Did Muisca chiefs directly manage the internal spatial organization of nucleated settlements? Was the ability to manage space a source of political authority? Only archaeological analyses can resolve these questions for Muisca settlement patterns and territoriality was poorly understood by the Spaniards who simply described Muisca settlements as small and numerous. The Spaniards did recognize chiefly compounds surrounded by other residences as central places within a dispersed Muisca settlement pattern and it is these large residences that they usually referred to as courts or towns (i.e., cortes or pueblos) (Broadbent, 1964; Pradilla et al., 1995; Rozo, 1997a; Villate, 2001). One clear description of Muisca settlements explained that a community consisted of 10–100 houses clustered around a large chiefly residential compound (Broadbent, 1964, p. 64) and that houses were also dispersed loosely around these more nucleated population concentrations. Determine to impose their own notions of territoriality and settlement, the Spaniards described Muisca settlements as pueblos, an all purpose term that could mean (1) a city or place populated with people; (2) a group of people that inhabit a place; and (3) common and ordinary people of a city or a population, in distinction to nobles (Academia Autoridades, 1737, p. 422). Spanish translators even inserted pueblo into the Muisca language (González de Pérez, 1987, p. 207) to describe Muisca settlement patterns. Thus, one Colonial Spanish/Muisca dictionary has the phrase, pueblo zona ie, which means the road that passes by the town (González de Pérez, 1987, p. 207). Another complicating factor to understanding Muisca political authority and settlement patterns was that single communities and politically aligned territories took the name of the chief (Broadbent, 1964, p. 27; Simon, 1981, p. 156; Villamarín and Villamarín, 1975, p. 174) suggesting the Muisca territories described by the Spaniards in the 16th century were more of a political than spatial phenomena.

Finally, drawing on the idea that some uta and zibyn groups had kinship ties and inherited territorial rights to land, Muisca scholars have proposed a segmented model of community organization (Boada, 1999; Londono, 1994) and interpreted archaeological settlement patterns based on internal uta and zibyn divisions (Boada, 1999) (Fig. 2). In this schema, chiefs ceded or divided space and territorial control between loyal subordinate leaders. We contribute to this debate with both linguistic and archaeological analyses of residential and whole settlement patterns at Suta. Our analyses complement previous research that identifies the household as the minimal socio-cultural group among the Muisca (Kurella, 1998, p. 195; Villamarín and Villamarín, 1975, p. 174) while recognizing that there is no “unified statement” on Muisca kinship patterns or house size and composition (Broadbent, 1964, p. 24; Villamarín and Villamarín, 1975, p. 174).

Native concepts of house and Muisca settlement patterns

To better understand the phenomena of nucleated settlement formation during the Early and Late Muisca periods and internal spatial organization of single settlements, we propose that investigators adapt the Muisca concept of house, gue, as analytic units for interpreting both residential and whole settlement patterns. We argue that the Muisca concept of house, gue, is similar to other house societies (Carsten and Hugh-Jones, 1995) where a language of the house defies traditional analytic divisions and is used to describe both residential and community settlement patterns.

The most literal meaning of the Muisca house was residence. Gue referred specifically to residential buildings, which the Spaniards recognized as casas or bohios (González de Pérez, 1987, pp. 199, 210; Quesada Pacheco, 1991, p. 49). Moreover, our review of Colonial Muisca/Spanish dictionaries suggests that the Muisca residence consisted of at least one architectural structure, and occasionally two structures (González de Pérez, 1987, p. 254). Residential space was fronted by a patio space and perhaps a road or path, ie (González de Pérez, 1987, p. 333; Lucena Salmoral, 1967, p. 71; Quesada Pacheco, 1991, p. 55). In front of the residential structure was a patio area, called uta. (González de Pérez, 1987, pp. 292, 296). However, uta is also translated as plaza (Quesada Pacheco, 1991, p. 82) and may refer to non-residential, communal spaces. A fence or palisade, called ca, may have enclosed the entire residential area (González de Pérez, 1987, pp. 224, 331; Quesada Pacheco, 1991, p. 53). Ethnohistoric sources emphasize the presence of palisades, usually a double walled structure, around the chief’s houses and those of other political elites or capítan (Pradilla et al., 1995; Rozo, 1997a; Villate, 2001), but they may have also been more commonly used among the general populace. Ethnohistoric accounts also describe roads, ie, that were built in front of the chief’s residential compound (Rozo, 1997a,b) and that led to the house of a religious specialist (Rozo, 1997a, pp. 50–52). Large horizontal excavations of residential areas are needed to document the variation in spatial organization and architectural components of Muisca residences.

Gue was also a referent for place and used in phrases describing the whole settlement. Gues bacana, refers to someone who is away or outside of the town (González de Pérez, 1987, p. 265) and is literally translated to mean “house-by-out went.” Gueganecana was translated by
the Spaniards to mean he left for the Indian towns (González de Pérez, 1987, p. 264) and literally translates to mean “house-crotch-went.” In this construction, gangyca means among, amid, and in between (Ostler, 1993, p. 20), which suggests that literally whole settlements consisted of a nucleated group of houses located near and between one another.

Quyca is another Muisca term that refers to location. It is translated as land, country, region, town, myth, disease, small pox, tale, history, and sky or heaven (González de Pérez, 1987, pp. 326, 305, 262, 295, 333; 223; 225; Quesada Pacheco, 1991, pp. 94, 82, 98, 52). Quyca seems to be a multifaceted and general word for place that the Spaniards interpreted according to their particular territorial notions of land, country, region, or town.

A similar case, Osborn notes for the Uwa, a neighboring Chibchan-speaking people (Fig. 1), that strangers are people who belonged to a community and who did not. Perhaps the strongest evidence that the house was a focus for creating and legitimating local social relationships is the word gueba, which literally means stranger (González de Pérez, 1987, p. 176; Quesada Pacheco, 1991, p. 35). Gueba can be analyzed by normal Muisca morphophonemics as gue + yba, “house + blood.” As such, gueba is a term that also refers to sacrificial victims, non-Muisca people that were captured and brought from the plains region of Colombia (Duque Gómez, 1965, p. 360; Rozo, 1997b, pp. 104, 106, ). The concept of gueba, a stranger or house blood, reflects a general aspect of native concepts of the house that strongly differentiate between us, the known and the unknown, and those qualitatively different from us (Helms, 1998).

In a similar case, Osborn notes for the Uwa, a neighboring Chibchan-speaking people (Fig. 1), that strangers are people that exist outside of the house. In this case, the house represents the universe (Osborn, 1989, p. 153). Taken together these vocabulary, even if they are only a partial collection of Muisca concepts of place, strongly suggest that the residential structure, gue, was an expansive concept used to describe how people co-habited, under a single roof, in a single place, and with a group of known people.

Finally, we want to emphasize that all written Spanish references to gue do not correspond to the house concept. Originally, gue was interpreted as the substantive verb, meaning to be (González de Pérez, 1987, pp. 75–76; Lugo, 1619, p. 20) and certainly in the related stative verb zeguene (“I am”) it has the force of a copula. However, the origin of the grammatical particle gue may have been a Chibchan root that meant “do.” Ostler (1994, p. 209) notes that syntactically gue is a sentence-final affirmative particle; and (Ostler, 2000, Table 1) that a morpheme gu is present in other Chibcha languages such as Duit, Tunebo (aka Uwa), and Kogi. When an anonymous Spanish priest compiled the first Chibcha dictionary in the first half of the 17th century, he translated the catechism. In response to the question, “Is God the father?” the Muisca were instructed to answer Dios gue or God is (González de Pérez, 1987, p. 337). This word spelt gue should be phonetically transcribed as [gs], and is not related to the other word conventionally spelt gue, or gué, phonetically [we], which means a residential building. Moreover, gue [we] appears to be etymologically isolated; it is distinct from the words for house in the related languages Uwa, Kogi, Ika, and Daman (Huber and Reed, 1992, p. 95) (see Fig. 1).

Native concepts of house and political authority in Muisca societies

Just as whole settlements were built in reference to the house, our linguistic analyses suggest that Muisca notions about the house also shaped Muisca political authority. A multifaceted concept, the Muisca house was a totem (see Lakoff, 1987), for gue could simultaneously stand for other things. In this respect, the conceptual malleability of gue is very similar to other societies where the house takes on a “plurality of meanings,” (Kus and Raharijona, 2000, p. 101) and is symbolic of a holistic worldview (Carsten and Hugh-Jones, 1995; Helms, 1998; Joyce and Gillespie, 2000; Kus and Raharijona, 2000; Pearson and Richards, 1994). When the house is such a central and inclusive concept in native thought, then ideas about the house can help people face the unknown, for people can use a house idiom to incorporate and make sense of
new experiences (e.g., Bloch, 1995; McKinnon, 2000; Kus and Raharijonana, 2000; Waterson, 1995). We argue that gue was one such concept and that political elites drew on gue to create positions of leadership, express inequality and to build central places (Helms, 1998). The following linguistic analyses identify several symbolic elements of Muisca architecture associated with leadership positions and that were elaborated by political elites in the construction of chiefly residential compounds. Where possible, we indicate the material, archaeological correlates to these concepts.

A relationship between leadership and the house, or gue, (phonetic [we]), is suggested by the word uta, which means (1) minor captain, (2) patio in front of the house, and (3) a larger social group aligned to the captain (González de Pérez, 1987, pp. 209, 292, 296; Quesada Pacheco, 1991, pp. 48, 82). What is relevant to this study is that this position of leadership was articulated in relation to a material component of a residence, the patio. The earliest dictionary from the Real Academia Española describes the patio as an open area of the house, of universities, or of places of comedy that were open and paved but enclosed by walls, halls, or columns (Academia Autoridades, 1737, p. 164). This description suggests that palisades enclosed the uta, an idea that can also be evaluated archaeologically. Patios and residential areas enclosed by palisades may be material signatures of elites residential architecture and horizontal excavations of randomly sampled residential areas are necessary to evaluate if this concept of uta leaders had a material, spatial correlate.

Another word that strongly indicates political leadership was articulated in relation to the house is the term guexica, which is uncle, the brother of my mother (González de Pérez, 1987, pp. 173, 187; Quesada Pacheco, 1991, p. 94). Importantly, the kinship relationship between an uncle and his sister’s son was the bases of succession to political and religious positions (Correa, 1992, p. 161; Langebaek, 1987, pp. 30–31). This word, guexica, literally translates to mean “house + male.” Furthermore, guexica were warriors recruited from the political territory of Bogota that were placed in the frontiers of aligned political territories to defend against the Panche (Langebaek, 1987, p. 31; Kurella, 1998, p. 198). These individuals were potential candidates for the position of chief, regardless of their kinship relationships, within the politically territory of Bogota (Langebaek, 1987, p. 31). The term guexica in particular suggest a fusion of kinship relationships and political alliances related to the house concept that legitimated the process of political succession to the position of a chief. In this sense, guexica reflects the conceptual malleability of the house concept for the idea of the house male was extended to legitimate the accession of nonkin to the position of chief. Another kinship term, guexica (González de Pérez, 1987, p. 178; Quesada Pacheco, 1991, p. 36) means grandfather and literally translates to mean “house + tooth.” Sicas, literally “by tooth of,” was an aversive postposition used for an object of flight or fear (Ostler, 1993, p. 21) suggesting that the grandfather was typically a feared authority figure. The terms guexica and guexica suggest that succession to positions of political or religious leadership were based on notions of male authority, seniority, and patterns of inheritance in the house.

Our analysis complements recent work by Rozo (Rozo, 1997a, pp. 29–50) on space and time among the Muisca that identifies the chiefly residential compound as an axis mundi, though we disagree with Rozo’s interpretation to the extent that the meaning of gue or gy (phonetic [gɔ]) does not semantically pertain to the house concept.

8 For example, Bloch describes how the Zafimaniry of Madagascar, immediately following the military destruction of their village in 1947, brought the corpse of the village headman back into the ruined community and placed him over the burnt remains of the post to a founder’s holy house so that his death, which occurred without Catholic prayers and outside of the holy house, could somehow be reconciled among devastated survivors. Miraculously, the man recovered and after saying “Hail Mary,” died and was buried. Later, in response to a child’s illness, a special broth was prepared and given to the same house post and the sick child. Villagers recognized the subsequent recovery of the child and the village as stemming from these treatments (Bloch, 1995, p. 83). In this example, although village survivors were not sure what to do following the destruction of their village and a man’s death, the healing properties of the holy house are recognized, despite its physical destruction, and these qualities of the house help the survivors to conceptualize and begin their individual and collective recoveries. In a different example, MacKinnon describes how a place of origin, recognized as the ancestral house for many Tana Toraja in Indonesia, is now being considered as an appropriate place for building a house that will serve as a center for tourism, prayer, and research on the history of the native religion of Alak to Dolo (McKinnon, 2000, pp. 184–187). In this example, novel activities such as tourism and research are melded with traditional notions of ancestral houses and the product is a public corporation recognized by all involved in its creation as a house. Waterson also highlights the creative qualities of the house concept by showing how the Japanese concept of Ie, originally associated with a house group, has been applied to justify such novel spheres of activity such as national governments and the contemporary Japanese management system (Waterson, 1995, pp. 63–66). In English, we recognize the homemade qualities of things as a way to refer to the sense of caring and familiarity that we associate with the house. The homestay in baseball is another example of the ideas of the house being extended and transformed to apply to different kinds of activities.

9 Our analysis complements recent work by Rozo (Rozo, 1997a, pp. 29–50) on space and time among the Muisca that identifies the chiefly residential compound as an axis mundi, though we disagree with Rozo’s interpretation to the extent that the meaning of gue or gy (phonetic [gɔ]) does not semantically pertain to the house concept.

10 Grandmother, or caca, does not refer to the house (González de Pérez, 1987, p. 178) but guexica was a house related term that referred to the great grandmother on the women’s side of the family (Quesada Pacheco, 1991, p. 45). Alternative translations for guexica are “house + five” or one hundred. Other kinship terms do not incorporate the house (see Lucena Salmoral, 1967, pp. 83–84).
Another series of Muisca words suggest that the house, both the house/residential structure and the house/whole settlement, had an animate quality and that political elites elaborated on the house’s living qualities to demonstrate their control over general life processes (Helms, 1998). Houses, especially the chiefly residential compound, featured bones, mouths, and stomachs. *Guequyne,* or the central beam that supports the house (González de Pérez, 1987, p. 333), translates to mean “house + bone.” Moreover, bones, or *quyne* were associated with similar shaped parts of other living things. The three words *quyn, quyne,* and *quye* all seem to refer to homologous skeletal structures. Thus, the word *quyn,* may mean body, the height of an animal (González de Pérez, 1987, p. 223). *Quyn* was also used as part of a compound adjective (González de Pérez, 1987, p. 130) that described abundance. *Quyne* refers to a net used for hunting (e.g., a cage or trap?), bone, plant stem, and strength (González de Pérez, 1987, pp. 311, 267, 321, 265). Finally, *quye* may mean stick or post, tree leaf, tree and wooden plank (González de Pérez, 1987, pp. 288, 270, 193, 321). Given these multiple definitions it seems plausible that these concepts refer to similar shaped skeletal structures. If so, then the *guequyne,* or the central beam that supports the house, was a part of the house that conformed to the primary shape and skeletal qualities of living things and included what we separately classify as plants, vertebrate animals, and humans. Moreover, based on the meanings of *quye* as post or wooden plank, it seems likely that other house posts would also have pertained to this category of skeletal structures. Constenla shows that the words for bone, or *quyne,* and tree, or *quye,* were phonetically different in proto-Chibcha (Constenla Umana, 1981), which is what we would expect if bone and trees were homologous skeletal structures that differed in origin but were the same in structure.

Moreover, both the door to the house and the door to the surrounding palisade were conceived as mouths. The entrance to the palisade was called *caquhycha,* meaning the door to the palisade (González de Pérez, 1987, p. 258), and the entrance to the house structure itself was called *gue quyhyca* or *quisca* (González de Pérez, 1987, pp. 258, 305, 333; Quesada Pacheco, 1991, pp. 85, 98). A literal translation for *gue quyhyca* is “house + mouth” and for *caquhycha* is “palisade + mouth” (see also Duquesne, 1795, p. 225).

The road, *ie,* that fronted chiefly residential compounds also had multiple meanings and was associated with body parts. *Ie* may mean stomach, maintenance, road, smoke, food, dance, and/or prayer (González de Pérez, 1987, pp. 279, 333; Quesada Pacheco, 1991, p. 55; Lucena Salmoral, 1967, p. 71). The word *ie* plus a number was also used to call out sequences to dances or prayers (Quesada Pacheco, 1991, p. 55). The word *ie-bzasqua* was identified by the Spaniards as the word for making a place (González de Pérez, 1987, p. 274) and literally translates to “stomach + put” or “road + put.” The word meaning “fill,” *ie-z bzasqua,* is also quite similar. A plausible interpretation of these terms that incorporate *ie,* or road, is that places were danced and prayed into existence or “filled” and fed by making offerings to the deities. Thus, the belly or the road may have been a central place in whole settlements and by feeding the gods then Muisca chiefs enabled their communities to cohabit with each other and with the sacred. Finally, that a Muisca settlement had to be nourished and was in fact an organic, animate entity is also suggested by the word *gahachua* (González de Pérez, 1987, p. 305) that described unpopulated places and which was possibly the past participle of *gahachansa* meaning “to rot.” This word, *gahachua,* implies an organic metaphor for settlements and suggests that uninhabited places that were not tended by humans would degenerate and die.

There is no linguistic evidence that Muisca residences had other physical features such as eyes, ears, arms, legs, or skin as is common in other societies that conceptualize house architecture in terms of a body (Carsten and Hugh-Jones, 1995, p. 42). However, in Muisca several postpositions describe directions and are derived from words related to the body (Ostler, 1993). Thus, the term *gue quyhysea* means in front of, outside of the house and literally translates as “house-horn-by” or “house-chin-by.” Such a correlation between directions and body parts is suggestive, though certainly not conclusive evidence, of an animate quality of Muisca places.

Ethnohistoric accounts and archaeological data indicate that political and religious elites invested considerable energy in modifying and elaborating house posts in the design of residential compounds and religious buildings (Pradilla et al., 1995; Rozo, 1997a; Villate, 2001). Pedro Simon reports the use of thicker posts used at the entrance to the palisades and at the center of the chief’s house (Simon, 1981, III p. 393). Rozo cites Simon who also describes thick posts used in the “temple” of Sogam.

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11 That these offerings were conceived in terms of consumption or maintenance is interesting because it is very similar to Kogi religious concepts in which all offerings are food. Moreover, for the Kogi, eating and cohabiting is the same thing (Reichel-Dolmatoff, 1985, p. 101) and a similar set of associations may have existed for the Muisca.

12 An inverse relationship between the body and the house is suggested by two terms. The word *zotogue* translates literally to mean “brain + house” or house of the brain (Lucena Salmoral, 1967, p. 87) and seems to refer to the brain membrane rather than the cranium. Similarly, *hisuga* means “urine + house” and refers to the bladder (Lucena Salmoral, 1967, p. 88; González de Pérez, 1987, p. 286). These two concepts also imply that the architectural structure was conceptualized as a standard shape or container. The correlation between body, residential architecture, and directions exemplifies the conceptual malleability of the Muisca house concept and is indicative of the holistic character of native concepts of house (Carsten and Hugh-Jones, 1995).
os o that were made of the wood from the guayacán tree and that were brought from the distant plains region so as to guarantee that the building would last eternally (Rozo, 1997a, pp. 46–47, 60). Castellanos reports of work groups that drank corn beer while dragging the large posts that were cut for the construction of the chief’s residence (Rozo, 1997a, p. 47), which Rozo interprets as a ceremony that commemorated the primordial action of the gods to form and support the world (Rozo, 1997a, pp. 46–47). Large house posts are also depicted in gold ornaments that represent chiefly residential palisades. These architectural representations depict the disproportion size of some house posts within the residential compound (Fig. 5).13 Archaeological excavations have identified such thick posts at the center of large circular structures at Tunja (Broadbent, 1965, p. 14), near Sogamoso (Broadbent, 1965, p. 19), at the site Candelaria La Nueva (Boada, 2000, p. 35), and in Mosquera (Duque Gómez, 1965, pp. 173–174). These posts measured between .6 and .9 m in diameter (Boada, 2000, p. 35; Broadbent, 1965, p. 190; Duque Gómez, 1965, p. 173) and differ from the house posts of other residential structures that averaged .15 m in diameter (Boada, 2000, p. 39).14

13 Such gold artifacts were used as offerings, often placed in ceramic vessels near sacred natural features such as rivers, lakes, and mountains (Langebaek, 1986, p. 44; Rozo, 1997a, p. 50; Simon, 1981, p. 386).

14 Comparative ethnographic information from other Chibchan-speaking societies in Colombia and Panama also suggest that house posts are thought of as symbols of chiefly political authority and referents to central places in the universe and world origins. In the house of the Cuna leaders from Panama, the principal posts of the house represent political leaders and the cane in the walls represented the individual members of the community (Howe, 1977). The central space defined by the principal posts was an area for communal rituals (Howe, 1977). Among the Kogi of the Sierra Nevada of Santa Marta, the principal posts in the religious sanctuaries or world-houses include many aspects of the Kogi cosmos and consequently the posts can have multiple meanings (Reichel-Dolmatoff, 1975). For instance, the political structure of the group is represented by the architectural structure. Thus, the structural supporting posts, located near doorways and in the center, represent the political and religious leaders while the surrounding wall posts represent the community (Reichel-Dolmatoff, 1975, p. 212). Moreover, in an origin myth, which explains the creation of the world, Reichel-Dolmatoff explains that the Universal Mother put her large bone in the recently created earth and claimed that this point, the highest peak of the Sierra Nevada, was the central post of the world (Reichel-Dolmatoff, 1975, p. 205). The classification both bone and wooden posts, present in the word quye, is particularly relevant in this example and further suggests that house houses were homologous skeletal structures of living things. Similarly, Langebaek summarizes the symbolic significance of house posts in large multifamily houses, or malocas, from the Amazon (Langebaek, 1992a, p. 16–17) where central posts represent the shaman of the sun or the mountains that support the sky.

There is also some indication that political elites may have elaborated house walls as another portion of the house that had homologous skeletal structures. The walls of the palisade and elite houses were made of a specific type of cane, sone in Muisca, which was interwoven together and generally more elaborate in design (Rozo, 1997a; Villate, 2001). Duque Gómez cites Castellanos who describes the walls of houses inside the chiefly palisades as including woven strands of colored threads (Duque Gómez, 1965, p. 170). Another late Colonial document from 1666 refers to the thick wooden walls in the residential compound of the chief’s brother in Tunja in which wooden planks were covered in cane, on both sides, and then covered with daub (Pradilla et al., 1995, p. 37; Rozo, 1997a; Villate, 2001). This construction method is of particular interest for it is suggestive that the chief’s house had more elaborate walls that drew upon the skeletal aspect of quye as wooden planks. Other houses may have had simpler walls made only of interwoven cane, or sone. Archaeological analyses of stick impressions from daub may help clarify the variation in cane and/or posts used in wall construction of Muisca residences (Fig. 3), but to date these analyses are lacking. The daub from Fig. 3 was found in association with a residential location at Suta. Finally, archaeological excavations of a large structure measuring 9.5 m in diameter at the site Candelaria La Nueva featured a thick post not only in the center of the structure but also in the surrounding wall posts (Boada, 2000, p. 35), suggesting that elites may have substituted thick posts rather than cane to create larger walls or the skeletal structures for their houses.

Strikingly, both (1) house posts or house bones and (2) house doors or house mouths are parts of residential architecture that are also associated with human sacrifices. Muisca political and religious elites “fed” houses
with human sacrifices. Simon makes references to posts of between 4 and 7 m high at the corner of the square shaped palisades of chiefly elites (Simon, 1981, pp. 187, 188, 393). These posts looked like trees and had cages on top that occasionally held captives and/or sacrificial victims (Londono, 1986; Pradilla et al., 1995, p. 37; Rozo, 1997a,b; Villate, 2001). Similarly, Simon makes reference to a practice of wiping the blood from human sacrifices on the posts in temples or sanctuary structures (Simon, 1981, p. 166). Posts with sacrificial victims are also represented in gold ornaments (Fig. 4, see also Londono, 1986). Additional evidence for the relationship between human sacrifice and house posts comes from archaeological excavations that uncovered a male, youth burial in a posthole of a large Muisca building at Mosquera (Duque Gómez, 1965, p. 174). Here a male youth of more than 15 years old was found at the base of a posthole with the left tibia fractured from the weight of the post (Duque Gómez, 1965, p. 174). This deposit has been interpreted in light of Simon’s reference to sacrifices of Muisca children as a necessary part of the dedication of new chiefly compound (Simon, 1981, pp. 393, 394) in which female youths bodies were placed in the postholes of the chief’s residence, crushed by the post, and mixed with earth so as to guarantee the strength and success of the house and its occupants (Simon, 1981, p. 393). Simon reports specifically that the houses were founded over human flesh and blood (Simon, 1981, p. 393). Simon also makes reference to human sacrifices of slaves placed beneath the posts at the temple of Sogamoso so as to ensure the perpetual success of the structure (Rozo, 1997a, p. 60). Similarly, Duquesne describes youth sacrifices and the consecration of houses (Duquesne, 1795, pp. 223–225),
in which the sacrificed youth is conceived as a door to the sun god. We found independent support of these accounts in the words gueta quyhyca, a term that describes young sacrificial victims and that literally means “youth + mouth” (Quesada Pacheco, 1991, p. 76). This term is a similar linguistic construction of guet meaning house door and that literally translates as “house + mouth.” Sacrificial youths were “eaten” by the house and were a door to the gods. Taken together the terms (1) guet, “house + blood” or stranger, (2) gueta quyhyca, “youth + mouth” or “youth + door” or young sacrificial victim, and (3), guet quyhyca, “house + mouth” or house door, provide additional support to ethnohistoric and archaeological evidence of human sacrifice and imply that the Muisca house, especially that of political and religious elites, was fed and nourished by human sacrifices.

Celebrations in honor of new houses also included other elements that enhanced the authority of the chief and seem to commemorate the life cycle of residential architecture. Throughout the celebration in honor of the new chief’s house, two older men lay naked and prostate at the entrance to the chief’s palisade with large hunting nets placed over them to symbolize death (Simon, 1981, p. 394). During this time neither of the two men ate or drank to further underscore the state of death. Given the translation of the caqyhyca as the “palisade + mouth,” it is tempting to interpret these figures as representing not only death but also house food. At another point in the house celebration, the cacique sponsored a race in which youth ran in a large circle, up to four leagues, in a route that encircled the new house. The winner was given six capes and the right to wear a long cape during the suns house celebration, the cacique sponsored a race in which youth ran in a large circle, up to four leagues, in a route that encircled the new house. The winner was given six capes and the right to wear a long cape

The possible relationship between the house and a numerical calendar system is not unique to the Muisca, for the Kogi of the Sierra Nevada also built some houses and temples as astronomical observatories so as to keep time (Reichel-Dolmatoff, 1975). Moreover, in the Amazon region of Colombia, malocas, or multifamily house structures of the Makuna (i.e., wi), are solar watches by which residents keep time by observing the position of sunbeams over certain interior portions of the house structure (Canyon, 2002, p. 57). Similarly, the eastern doors of the ceremonial houses of the Uwa serve as a sundial during the solstices (Osborn, 1989, p. 59).

15 In compound expressions in Muisca, y or a, following a vowel are deleted. Thus, the term chietana (“now, in one month” González de Pérez, 1987, p. 190) is actually constructed from chie + (a)ta+na (month + one + in). Similarly, the term “his finger-tip” is written atyba from the compound a + (y)tyba. Cf “my finger-tip” z + tyyba, “thy finger-tip” is m + tyyba (Quesada Pacheco, 1991, p. 56).

16 The Muisca numerical system and the house concept is also associated with raised fields. Some kinds of fields are also associated with the house because the word for raised field is suña guet (González de Pérez, 1987, p. 207). Suña guet may literally be translated as “seed + house.” When multiple fields are counted then the guet is dropped so that one raised field is suña atya and two raised fields are suña boza (González de Pérez, 1987, p. 207). This method of counting is typical of the Muisca numerical system and underscores the meaning of guet in the numeral system as a total numerical unit.

17 Based on references to a lunar calendar in earlier historic sources, he thinks the calendar year of the Muisca was different (Rozo, 1997a, pp. 63–91; however see also Reichel-Dolmatoff, 1975, pp. 228–232).
p. 148). The incorporation of the house concept in the word for the number 20 is highly suggestive that not only numerical quantities but also that periods of time were related to the Muiscas house and in the future, large horizontal excavations of circular architecture should also be analyzed from an astronomical perspective to see if central house posts or doorways were positioned to coincide with the position of Venus during certain times of the year, or the position of the sun during the winter and summer solstices and equinoxes (Reichel-Dolmatoff, 1975, pp. 206–209; 215–216). Political and religious elites may have used house posts and doorways, that is bones and mouths, for observing astronomical phenomena and for marking time.

Was the Muiscas house both the residential structure and the whole settlement built and conceived as a separate being with its own life cycle? Summarizing ethnographic work on indigenous houses in the Amazon of South America and throughout Asia, Carsten and Hugh-Jones (1995) explain that houses with animate qualities are different from humans but do share some of the same essential qualities and are also subject to the same general life processes (Carsten and Hugh-Jones, 1995, p. 23). They suggest that the life of a house is a way of understanding the process of living in general (see Bloch, 1995) and in this sense houses are powerful, multifaceted symbols that express an integrated and sacred worldview. To the extent that Muiscas houses had bones, mouths, and stomachs and they had to be nourished and fed, we can assert that the Muiscas house was a living component of a vital landscape.

In absence of direct observation we are unable to argue that Muiscas houses, as separate animate entities, interacted with Muiscas populations as has been documented for other indigenous societies in which the house can act on and influence its inhabitants. For example, the numyama of the Kwakuitl of the Northwest Coast of North America had power, or na’walak, which it could give to its inhabitants or could use against its inhabitants (Codere, 1966). However, Muiscas may have interacted with the house, an animate entity, in ways that were similar to over living things, such as people, animals, plants and formed social relationships that gave meaning and relevance to everyday life.

It is likely that the relationships and associations between place, architecture, and humans, this sharing in a common life cycle, was also a metaphor for political relationships between elites and non-elites. Our linguistic analyses suggest that Muiscas political leadership drew on male patterns of seniority and authority (guexica) and inheritance rules (guecha) associated with the house. The architectural structure itself was a strong symbol not only for chiefly authority, but also for subordinate leaders, uta. The Muiscas house was not a unitary symbol of chiefly political authority; it was a multifaceted symbol; it provided a language for describing a variety of relationships. Only archaeological research can clarify the degree to which the Muiscas house symbols were elaborated by chiefs, subordinate leaders, and the general population. We must examine whether chiefly elites built elaborate residential compounds to legitimate their authority and to create central places, like Suta, beginning the 11th century AD. But we must also examine the similarities and differences between elite and non-elite residential architecture to document the degree to which all Early and Late Muiscas populations designed, constructed, and fed fearsome, living residential buildings.

The notion that Muiscas residences were an animate entity, a symbol of authority over general life processes, can also be evaluated against archaeological contexts and constitute an important avenue for future research. To these ends, the presence of (1) larger post holes (e.g., 60–90 m), (2) a central house post, (3) a unique configuration of central house posts, (4) different kinds of wall construction featuring larger posts or planks (5) mortuary deposits of youths beneath or inside post holes, and (6) macrobotanical remains of different types of woods used for central house posts, would all indicate the degree to which political elites’ elaborated on post designs in building their houses to emphasize their control over primary life structures, in this case house bones. Future research should also evaluate the extent to which offerings were placed beneath doorways or in the mouths, both of residential structures and palisades. Finally, archaeological research should attempt to document whether roads or paths were placed exclusively in front of chiefly residential structures so as to make a place and fill the bellies of the gods.

Individualistic and institutional models of house based political authority

To contribute to current debates on complex societies we must use this culturally specific information to evaluate the organizational scale of Muiscas political inequality. Ultimately, we want to know the degree to which Muiscas chiefs directly controlled local populations and compare the Muiscas to other complex societies. Answering these questions about scale requires a comparative
Models of complex society that distinguish between individual and institutional sources of political authority (Blanton et al., 1996; Drennan, 1995a; Renfrew, 1974) provide this comparative perspective and can contribute to current debates on the institutional qualities of the house (Gillespie, 2000; Helms, 1998; McKinnon, 2000; Waterson, 1995, 2000).

When political power has an individual basis then the actual position of leadership depends on an individual’s ability to both create and maintain the need for leadership (Drennan, 1995a, pp. 94–95). Political leaders must personify their position (see also Helms, 1998, pp. 148–149). Thus, political legitimacy is largely dependent on an individual’s charismatic ability to prove and convince local populations of their leadership. Individualistic political strategies are less likely to involve the direct control over critical resources, economic organization, and wealth accumulation since leadership is usually based on status rivalries and prestige differences. Proficiency in religious matters, warfare, and long distance exchange of prestige goods are activities that may bolster the status of competing political leaders and form the basis of their political power. The house can become a source of individualistic political power if elites can bring religious authority into the house or use the house as a means for the transmission of items of immaterial wealth, such as personal titles, privileges, or prestige goods. Our linguistic, ethnohistoric, and archaeological analyses suggests that Muisca, religious authority may have been elaborated in the construction of animate houses that featured such attributes as human sacrifices buried underneath house posts, the use of larger wooden house posts or more elaborate wall construction, the placement of offerings in doorways, the construction of residential patios, or the construction of roads in front of the chiefly residential compounds. These activities, with the exception of patios, elaborated on the living qualities of the Muisca house, and may have expanded on a metaphor that related place to consumption and cohabitation. As charismatic leaders, however we would expect, that Muisca chiefs would simply have excelled rather than exclusively controlled such practices. Within the general population, we would expect to find that leaders of other houses also elaborated on the symbolic and sacred aspects of gue.

However, when political authority has an institutional base then leadership positions exist independent of specific individuals and the sources of political authority are pre-established (Blanton et al., 1996, p. 6). Direct control over critical resources and a coercive use of force over local populations, as specified originally by Fried (1967), are legitimate sources of power. Political elites may exert direct control over other houses by controlling critical resources, economic organization, work, and the accumulation of material wealth. Additionally, collective actions and universal qualities are valued over personal traits and qualities. The contractual house orientations or the first principle origin described by Helms (1998, pp. 77–79) are examples of how universal qualities may become important for legitimating emergent hierarchies tied to the house. In particular, human sacrifices in that they seem to have nourished the gods may have been related to first-principle notions and expressed the institutional qualities of the Muisca house. In material terms this means that the symbolic elaboration of the chief’s house would be qualitatively different from all other houses. For the Muisca, we would expect that the chief’s residence would exclusively feature important architectural symbols such as bones, mouths, and bellies. Second, the architectural structure of residences in general is more likely to become a visible symbol of material wealth differences when political authority has an institutional base (Drennan, 1995a). If political authority had an institutional base, then we would expect to see a significant degree of variation in architectural elaboration related to residential construction materials and structures sizes within the general population. Moreover, continuity in the locations of residences may also become more marked and prevalent as the house structure becomes a more exclusive material good. In this case, successive generations would claim territorial rights to specific residential locations and residential structures (Gillespie, 2000).

This distinction between individual and institutional sources of political authority is useful to house studies because it is precisely the capacity of elites to mobilize the house to concentrate and perpetuate wealth as well as political power that is central to the notion of the house as a dominant political institution. Recognizing that houses that take on institutional qualities are largely about wealth and legitimate political authority forces us to consider the issue of scale and to question the specific contexts and processes that engender institutional sources of political authority. This approach will enable us to appreciate both the general contexts and the particular historical trajectories of houses in complex societies (Gillespie, 2000, p. 51) and generate case studies that can be compared to prehistoric societies where linguistic data about native conceptions of the house are lacking.

Based on one archaeological fieldseason directed and carried out by Henderson, this study examines intra-site settlement patterns. If the political authority of Early
Muisca Chiefs at Suta had an individualistic basis beginning in the 11th century, then it is likely that political elites had little direct territorial control over the internal organization of the whole settlement during the Early Muisca period, when a nucleated settlement first appeared (Figs. 6 and 7). Only with institutional sources of political authority would we expect to see evidence of that chiefs had centralized territorial control over whole settlement organization. More detailed studies that consider the elaboration of house symbols with the populace at Suta are beyond the scope of this study. Even so, by objectively measuring the degree to which chiefly elites controlled the internal spatial organization of Suta, this study provides a context for future, more...
detailed studies on the relationships between house symbols and political inequality.

If sources of political authority were individualistic, then we expect to find evidence of a high degree of house independence. In terms of intra-site spatial patterning we expect an absence of a single large communal public space since the chief had little direct control over other local populations (Drennan, 1995a). Thus, we do not expect to find evidence of central communal spaces, such as plazas or a communal *uta* (i.e., plaza) (Quesada Pacheco, 1991, p. 82), which were separated from residential space. Second, residential locations or *gue* locations...
should conform to a random or an equidistant spatial pattern, which implies each house was economically and/or socially independent (Clark and Evans, 1954; Henderson, 1998; Wilk, 1991). Both of these spatial patterns are suggestive of social and/or economic independence between neighboring residences and between individual houses and a single, central authority. A random spatial pattern means that residential locations were chosen without respect to a central place and without respect to neighboring residences. An equidistant spatial pattern implies a lesser degree individual house autonomy in that residences attempted to maximize the space between themselves and neighboring houses. An equidistant spatial pattern may also reflect either social or economic competition between houses (Clark and Evans, 1954). Third, a dynamic and discontinuous spatial pattern of residential locations with households consistently relocating and re-establishing their houses in different places during the Early and Late Muisca period is also expected if political authority was largely individualistic. Discontinuity in residential locations would mean that house locations themselves were not heritable, material resources (Henderson, 1998, 2003; McAnany, 1995). Moreover, if political authority was largely based on individualistic capabilities, then the chief’s residential compound should also shift in location through time because individual leadership qualities were expressed in part by establishing new houses with each generation. Alternatively, discontinuity in residential location could also mean that the whole settlement was not internally zoned into separate public and residential spaces (Drennan, 1995a).

If political authority had an institutional basis, then the spatial patterning of individual houses should exhibit a lesser degree of independence and a higher degree of interdependence. The spatial organization of whole settlements would more likely include public spaces, such as plazas or a communal ulla (i.e., plaza) (Quesada Pacheco, 1991, p. 82) that were built separate from residential areas (Drennan, 1995a) if the ability to convene local populations was tied to institutional sources of authority. Moreover, residential locations would conform to a clustered spatial pattern that reflects increased economic or social ties between interdependent households (Clark and Evans, 1954; Henderson, 1998; Wilk, 1991). Spatially clustered patterning of residential locations is associated with households that do not function as a single economic unit but that do occasionally pool labor to accomplish labor-intensive tasks (Wilk, 1991; Henderson, 1998). Compact settlements with a high-density of residences can also reflect the direct territorial control of a central authority over a surrounding population (Drennan, 1988, pp. 283–284). Finally, if political authority had an institutional basis then residential locations were probably conserved through time, which would suggest that the generational ties between household members were strengthened so as to facilitate the transmission of material resource rights (Gillespie, 2000; Henderson, 1998, 2003; McAnany, 1995). Rebuilding the house in the same location emphasizes the social and economic relationships between successive households and between the living and their named ancestors (McAnany, 1995) and suggests that residential architecture was a valued material good. Continuity in the placement of the chief’s residential compound would also suggest that political elites were capable of building and conserving their houses as central places within the whole settlement. More importantly this pattern would indicate that the chiefly residential compound itself was an inheritable material resource and that the house took on the institutional role of transmitting both wealth and power between successive generations.

It is important to emphasize that we are examining long periods of time, in this case up to six centuries, and so the different spatial patterns are presented here as the cumulative result of individualistic or institutionally based political strategies. All three criteria may not be present in each case, for these criteria alone are not necessarily emblematic of a single source of political authority. For example, communal spaces may vary in the number and the kinds of people they incorporate and will not always reflect the direct, territorial control associated with institutional sources of power. A special purpose structure, such as the Men’s House from the Tierra Largas phase occupation at San José Mogote in the Valley of Oaxaca, is one such example (Marcus and Flannery, 1996, pp. 87–88). Moreover, institutional forms of political control are also not exclusively related to a clustered residential spatial pattern (Drennan, 1988, pp. 283–284). Dispersed spatial patterns may be associated with intensive agricultural practices and centralized forms of political control (Drennan, 1988). However, taken together as a constellation of features, these three criteria provide objective measurement of internal site spatial patterning and should reflect the degree of territorial control and

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19 Wilk’s (Wilk, 1991) ethnographic work among the Kekchi Maya of Southern Belize supports the interpretation that distances between residences is reflective of the degree to which neighboring households cooperated in social and economic activities. In a study of the Kekchi Maya living in southern Belize, Wilk found that households located 60 m or closer were economically interdependent (Wilk, 1991, p. 210). These households more regularly pooled labor to complete intensive tasks such as clearing and planting fields and harvesting crops. In a study of residential spacing at the Maya archaeological site of K’axob, I also found evidence that spatially clustered households were economically interdependent. Spatially clustered residences featured slightly more diverse patterns of production, which suggests that neighboring households did pool labor to diversify staple crop production (Henderson, 1998). This kind of micro, intra-site spatial patterning is one useful measure of household autonomy.
integration that political leaders and/or individual houses had in the construction of the whole settlement at Suta beginning in the 11th century AD.

Archaeological research at Suta: field methodology and gue spatial patterns

This research builds on a full coverage, systematic regional survey carried out in the Valley of Leyva, Colombia where the presence of independent chiefdoms communities were noted by early Spanish explorers in the 16th century (Langebaek, 1987, 2001). The first sedentary occupation in the Valley of Leyva dates to the Herrera period (400 BC–1000 AD). Total population estimates for the Valley of Leyva during this long period range from 108 to 217 individuals (Langebaek, 2001), a figure that assumes all Herrera sites were contemporaneously occupied. Average site size was slightly less than 1 ha (Langebaek, 2001), which suggest that the regional population lived in small and dispersed households. At the 2.4 ha Herrera site of Tiguasú, in the Valley of Leyva, three residential areas were investigated (Salamanca, 2001) but no significant differences were documented in residential artifact assemblages. Two burials from this site were dated to 690 ± 80 AD and to 850 ± 50 AD (Salamanca, 2001, p. 67).

Beginning with the Early Muisca period, in the 11th century AD, 80% of the regional population founded and moved into the two central communities of Suta and the Infiernito (Langebaek, 2001), two locations that had no preceding Herrera period occupations. In addition, many Herrera period settlements in the Valley of Leyva were abandoned. Maximum population estimates for the entire Valley of Leyva during the Early Muisca period range from 348 to 696 people, which underscore the very low population levels for this region and these two central settlements (i.e., 139–278 persons per settlement). The formation of two settlements, which each measured a total of 1 km² in area and featured a central zone of continuous occupation measuring around 5 ha (Langebaek, 2001, pp. 50, 70–71), are the central problematic of this study.

During the following Late Muisca Period (1200–1600 AD) Suta and the Infiernito were occupied and settlement continued to cover around 1 km² but three additional large settlements also were founded in the Valley of Leyva. The maximum valley population is estimated to range between 3072 and 6146 people (Langebaek, 2001, pp. 70–71). In addition to the formation of large settlements beginning in the 11th century AD, the Valley of Leyva features one site, el Infiernito, with stone monuments. Approximately 42 stone monoliths are present at the site of El Infiernito, and while the monuments have suffered a great deal of modern disturbances, descriptions from the 19th century cite the presence of a circular and a rectangular structure outlined by stone columns (see Langebaek, 2001, pp. 26–28). Currently excavations directed by Langebaek at El Infiernito attempt to date and clarify the construction of these monuments.

The regional map of Suta and surrounding settlement show the spatial distribution of human occupation by the 11th century AD (Fig. 6). By the 13th century AD the central settlement zone featured more occupied areas and the settlement to the east expanded along the riverbanks (Fig. 7). This study focuses on the most central settlement zone of Suta, a 33 ha area that was surrounded on all but one side by the Quebrada del Muelle and Quebrada Las Minas (Fig. 8).
study area, severe erosion and modern irrigation practices have seriously modified the archaeological settlement. This eastern area was left out of the systematic study of whole settlement formation. Within the study area, modern agricultural practices have modified some areas and in particular five deep water holes, excavated by bulldozers, have removed earlier strata (Fig. 8). Similarly, an unpaved road and 27 modern houses have modified the terrain (Fig. 8). To evaluate the influence of these constructions on earlier occupations and to locate occupational zones, this project systematically placed 1225 shovel test probes, placed every 15 m, in a triangular pattern, to evaluate the presence or absence of Early and Late Muisca residential occupations, to locate open areas within the settlement, and to identify settlement boundaries (Fig. 9). To date, this is the largest, single Muisca settlement that has been systematically sampled.

The field strategy of placing shovel test probes every 15 m in a triangular grid pattern was appropriate for systematically identifying residential zones across a 33 ha area and is based on a similar study of whole settlement organization at Mesitas, in the Alto Magdalena region of Colombia (González, 1998). González placed shovel test probes spaced every 10 m in a rectangular grid pattern over a 2 km² area and found 76 spatial concentrations measuring at least 25 m in diameter and 490 m² in area that consisted of ceramic and lithic materials that he interpreted as household clusters (González, 1998, p. 38). A similar method of systematic shovel test probes, placed in a rectangular grid pattern at every 5 m has also been used in the Alto Magdelana and the Muisca regions to identify the specific locations of residential structures within an area of several hectares (Blick, 1993; Drennan, 1985; Salamanca, 2001; Jaramillo, 1996; Kruschek, 2003; Romano, 1998; Quattrin, 2000). These more closely spaced shovel test probes revealed either a ring shaped pattern of ceramic debris, which encircled residential structures, or a dense and irregularly shaped concentration of ceramic materials that were accumulated in front of or behind residential structures (see Drennan, 1985, Figs. 29–31; Kruschek, 2003, pp. 74–178; Quattrin, 2000, Figs. 3.1, 3.2, 3.10, 5.1, 5.2, 5.5, 5.6). Moreover, these investigators verified the presence of residential structures associated with these debris concentrations through horizontal excavations (Blick, 1993; Drennan, 1985; Salamanca, 2001; Jaramillo, 1996; Romano, 1998; Quattrin, 2000). Based on the success of these studies for locating specific residential areas, I decided to place shovel test probes every 15 m in a triangular grid pattern, which enabled me to cover systematically larger areas using fewer shovel test probes (Fig. 10). As shown in Fig. 10, the spacing of shovel test probes at 15 m permitted me to sample the concentration of ceramic debris associated with a single structure with up to 3 shovel test probes and the areas surrounding these debris clusters with 9 shovel test probes. Thus, I identified the ceramic concentrations associated with residential structures not only by sampling the quantity of materials inside of them but also by sampling the empty spaces that surrounded them. The clusters of ceramic debris that I identified were not designed to delineate the internal composition of residential areas or the ring shaped pattern of ceramic debris associated with single structures because up to 21 shovel test probes spaced at 5 m intervals are necessary for that level of detail (Fig. 10). Instead to meet the objective of studying whole settlement organization within a 33-ha area, I identified the presence and absence of residential locations or what González termed household clusters of at least 25 m in diameter and 490 m² in area by locating

Fig. 9. Map of shovel test probes excavated within the study area.
and defining dense and continuous areas of ceramic materials through shovel test probes spaced 15 m apart. Since the size range of Muisca residential structures, measuring between 19.6 m² in area (i.e., 5 m in diameter) and 63.6 m² in area (i.e., 9.5 m in diameter) (Boada, 2000), are similar to the range of residential structures documented in the Alto Magdalena region (Drennan, 2000, Table 39), it is reasonable to use the 25 m diameter area of household clusters (i.e., 490 m² in area) identified by González for the Alto Magdalena region as a standard for the size of household clusters or residential locations in the Muisca region. Similarly, Kruschek calculated that the average floor area of Muisca structures was 23.6 m² based on excavated residences and used a 30 m diameter circle to interpret the debris pattern of 101 residential structures or house lots near Funza (Kruschek, 2003, pp. 76, 80, 74–178). Kruschek’s study, based on a triangular series of shovel test probes placed every 5 m, also supports the methodology used in this study for identifying Muisca residential remains.

I am confident that this methodology was successful in systematically sampling residential locations at Suta because the ceramic density maps show numerous circular and some irregular shaped distributions surrounded by open areas with few ceramic materials that are identical to those from earlier studies (Fig. 10). Fig. 10 also shows in detail the identification of four residential areas at Suta. Each of these four areas were associated with ceramic debris concentrations of different sizes and surrounded by areas with few or no ceramics shreds. Once these residential locations were delimited, I identified their spatial center by placing points where the highest number of sherds appeared within the ceramic clusters (Fig. 10). Of the four residential locations identified in Fig. 10, one residential location was found in a smaller ceramic concentration measuring 15 m in diameter (Fig. 10). Another residential location was located in a ceramic concentration measuring approximately 25 m in diameter (Fig. 10). Finally two adjacent residential locations were located in a larger continuous sherd concentration measuring 50 m in diameter (Fig. 10). In each case, the clear contrast between areas of dense ceramic concentrations and surrounding spaces with very few ceramics enabled me to locate and sample the continuous concentrations of ceramic materials that characterize the material signature of past residential areas. For the purpose of this study, I treat these residential locations as representative of (1) a cumulative settlement pattern associated with the Early and Late Muisca periods and (2) as the spatial center of Muisca residential locations or gue locations.

Materials dating to the Early Muisca and Late Muisca periods were present in 70% the shovel test probes. In total, this study collected 16,347 sherds that were classified into two established types: (1) Arenoso for the Early Muisca period (1000–1200 AD) and (2) Naranja...
Pulida for the Late Muisca Period (1200–1600 AD) (Falchetti, 1975; Langebaek, 2001). Polished stones were present in 8% of shovel test probes and chipped stone tools were present in 3% of shovel test probes. The southern boundary of the settlement was determined by the absence of cultural material across a 200 m area, which was represented by 13 consecutive shovel test probes that yielded no cultural material. Of the entire study area, only the northern most settlement zone was severely eroded and inappropriate for archaeological investigation. While some cultural material was present on the surface, along with fossils, this area was largely unsuitable for the purposes of this study. Spatial analyses do not include the northern most 4.3 ha.

The majority of cultural material collected in this study dates to the Early Muisca period (1000–1200 AD). In fact, 81% of all sherds dated to this time period and 57% of all shovel test probes yielded Early Muisca sherds (Fig. 11). There are 3 large occupational zones within the study area that are separated by open spaces, which are suggestive of internal divisions, perhaps uta and zibyn patterns of residence, within this settlement (see Boada, 1999). As Fig. 11 illustrates, a contour map of ceramic densities shows a continuous and dense zone of occupation across the southern and central area of the site and a second occupational zone to the northwest. There is also evidence of a series of smaller and less dense occupations to the northeast. A small ditch separates the northeastern and northwestern settlement zone but open spaces with no ceramic materials separates the south-central zone from the two northern occupational zones. By placing points at the center of ceramic densities, 58 separate residential or gue locations were identified for the Early Muisca period (Fig. 11), which to date constitutes the largest archaeological sample of Early Muisca residences.

A portion of the southern occupational zone is of particular interest since it resembles descriptions of rectangular shaped Muisca chiefly residential compounds (Figs. 11, 12) (Broadbent, 1964; Pradilla et al., 1995; Rozo, 1997a; Villate, 2001). As Fig. 12 shows in detail, there is a 3.8 ha rectangular shaped area that had continuous and high sherd densities. There are a total of 21 different gue locations in this zone and there are seven more gue locations around this area (Fig. 12). Within this densely occupied area, there is a 2-ha rectangular area at the 25 sherds per shovel test probe contour line that features the highest sherd densities at the site. This feature resembles ethnohistoric accounts of chiefly residential compounds enclosed by square palisades (Rozo, 1997a; Villate, 2001) and surrounded by a nucleated cluster of individual houses (Broadbent, 1964; Pradilla et al., 1995; Rozo, 1997a; Villate, 2001). Moreover, in overall area this rectangular shaped concentration of debris is half the size of the large palisade described by the Spaniards for the chief Bogota Bsaque, (Villate, 2001, p. 92). This square feature consists of 15 separate gue locations, which represent 25% of Early Muisca residences at Suta. This portion of the site was probably the symbolic and political center of the Suta settlement during the Early Muisca period, between the 11th and 13th centuries AD.

During the Late Muisca Period, from the 13th to the 17th century AD, occupation at Suta changes in several respects. First, even though this time period covers a longer period, occupation was less dense at Suta for only
19% of the ceramic sherds from the sample pertain to this period. However, the spatial distribution of occupation continued to be extensive with 51% of all shovel test probes yielding ceramic materials (Fig. 13). The decrease in ceramic densities may mean that the site was only occupied for a short portion of the Late Muisca period or that households dramatically decreased in size. In lieu of further excavations that could more precisely date the Late Muisca period occupational period at Suta, we favor the interpretation that Late Muisca period occupation at Suta was shorter than the 200 year Early Muisca period. Based on peaks in ceramic densities, I identified a total of 54 residential or *gue* locations within the study area (Fig. 13), which also represents the largest archaeological sample of Late Muisca residences from a single site.

Second, there were several changes in the spatial distribution of settlement in the three different sectors of the site (Fig. 13). New areas at the northern and southern edges of the site were occupied indicating that the settlement expanded outward. In fact, the two densest areas of occupation were located at the expanded southern edges of the settlement (Fig. 13). In the northern most sector there are five new *gue* locations associated with an artificial platform (see Fig. 8 for Mound location). Two *gue* points were located to the south of this feature during the Early Muisca period, but the presence of five *gue* locations over the artificial mount suggests that the construction and use of this construction dates to the Late Muisca period. In the south-central zone, there are more changes in the density and distribution of *gue* locations. The large rectangular shaped feature from the Early Muisca period was still present, measuring 1.3 ha (Fig. 13). Again, this is the most likely position for a chiefly residential compound at Suta. Within this rectangular shaped zone, I identified 6 possible *gue* locations based on the peaks in ceramic densities, which represents a 40% decrease in the number of residential locations within the chiefly compound from the Early Muisca to the Late Muisca period (Fig. 13). During
the Late Muisca period, only 11% of all residential locations were inside the chiefly residential compound. Moreover, the Late Muisca chiefly residence compound is built to the southeast of the Early Muisca chiefly compound and only a small portion of the Late Muisca chiefly compound spatially overlaps with the Early Muisca chiefly compound (Fig. 14), implying that exact spatial continuity in the location of elite residential compounds was not very significant at Suta. There was also less settlement surrounding the Late Muisca chiefly residential compound than during the Early Muisca period for many surrounding gue locations were abandoned (Fig. 13). The visual impression of settlement shifts in the southern-central zone is that new areas are occupied at the settlements northern and southern edges.

Evaluation of political authority and internal settlement organization at Suta

To more precisely measure the internal organization of the study area in terms of a whole settlement, Henderson undertook a nearest neighbor analysis (Clark and Evans, 1954) of gue locations during the Early and Late Muisca periods. This analysis evaluates the likelihood that an observed spatial pattern deviates from a hypothetical random spatial distribution. In a random spatial pattern the observed and expected mean nearest neighbor distances are equal and the nearest neighbor ratio is one. An evenly spaced distribution produces a ratio higher than one and a clustered distribution produces a ratio less than one (Clark and Evans, 1954). For the Early Muisca period, I was able to identify 58 probable gue locations within the 28.7-ha study area (Fig. 15). The nearest neighbor ratio was 0.998 \( (r_o = 35.122, r_e = 35.183, R = .998) \), which indicates a random spatial distribution of residential locations throughout the study area. These findings suggest that houses each placed their residences without respect to a single central authority or with little regard to the spatial distances between neighboring houses. During the Early Muisca period, houses exhibited a high degree of independence rather than interdependence. This random pattern contradicts the idea that Suta chiefs directly controlled or managed the internal organization of whole settlements and is suggestive of individualistic rather than institutional sources of political authority. These findings complement regional analyses of Early Muisca settlement patterns that suggest the importance of prestige and status competitions or the politics of competitive generosity in the formation of organizationally simple political hierarchies (Langebaek, 1995).

During the Late Muisca period, an analysis of peaks in ceramic densities identified 54 separate probable gue locations (Fig. 13). For the Late Muisca period, the nearest neighbor ratio was 1.260 \( (r_o = 45.930, r_e = 36.463, R = 1.260) \); the expected mean nearest neighbor distance was 36 m ± 2.5 m at one standard error; and the observed mean nearest neighbor distance was 46 m ± 1.8 m at one standard error (Fig. 15). These distances reflect an evenly spaced spatial distribution of residential locations throughout the study area, which indicates that individual houses were attempting to maximize spatial distances between themselves. In terms of the political model presented here, an evenly spaced distribution is suggestive of a high degree of house independence rather than social or economic interdependence. An evenly spaced spatial pattern is also more indicative.

Fig. 14. Map of the spatial distribution and partial overlap between the Early and Late Muisca chiefly residential Compounds.
of individualistic rather than institutional sources of political authority. The evenly spaced spatial distances between *gue* locations also suggest that individual houses were engaged in either social or economic competition. This spatial pattern coincides with other research that identifies some degree of economic and social differentiation between households at several Muisca sites (Boada, 1998, 1999, 2000). Thus, the basis for political leadership, although individualistic, may have differed from the Early Muisca period and Late Muisca period. Political elites, while not controlling the organization of settlement space, may have more directly influenced individual houses. Status and prestige competition may have increased between neighboring houses at Suta in the Late Muisca period.

Discontinuity in the spatial location of residences also suggests a pattern of individualistic political authority in which the institutional qualities of the house were weakly developed. Only 10 *gue* locations, or 18.5% that dated to the Late Muisca period were also occupied during the Early Muisca period (Fig. 16). These houses are spatially distributed throughout the settlement. Four of these locations are in south-central zone, three in the northwest, and three in the northeast portions of the settlement. In the south-central settlement zone only one *gue* location was present in the chiefly residential compounds of the Early and Late Muisca periods. It seems likely that this particular *gue* location may have been the chief's residence if continuity in the placement and construction of residential buildings was a source of political authority for Late Muisca chiefs (Gillespie, 2000). Two of the three *gue* locations, also located in the south-central zone, were located farther away from the chiefly residential compound. Together these 10 houses exemplify some of the characteristics of institutional houses since emphasizing ties with earlier houses is one mechanism for insuring the transmission of rights to immaterial or material wealth (Gillespie, 2000; McAnany, 1995). Future research will compare the artifact assemblages from permanent *gue* locations to discontinuous *gue* locations to better understand the scope of these differences. However, taken as a whole, the majority of residential locations at Suta were not rebuilt in the same location, which is suggestive that the founding of new residences, in new locations, was a source of individualistic patterns of authority and prestige. It is unlikely that house locations were in and of themselves a material resource that was passed down from one generation to another.

If re-occupation of residential locations were related to the political, social, or economic dominance of a chief, or the institutional qualities of the chief's house,
then I would have expected to find these 10 houses positioned around a chief’s central residence in the south-central sector of the settlement. Instead, the distribution of these 10 gue locations throughout the settlement underscores the relative independence of houses with respect to a single, central authority. The distribution of these 10 locations is evocative of several factions rather than a unified and similarly aligned elite and is suggestive of the native groupings of uta or zibyn (Boada, 1999; Broadbent, 1964; Londono, 1994; Villamarín and Villamarín, 1975). These gue locations may represent the houses of uta or zibyn leaders that formed larger groups with neighboring houses. Within each sector of the site these houses did not form a spatially clustered pattern, which suggests a high degree of independence for houses within uta or zibyn groups. Even so, the sectional growth of the site seems to underscore intra-site patterns of permanency and territoriality within the settlement, which is what we would expect if uta or zibyn subdivisions were important components of whole settlement formation. Future research should determine whether enclosed, patio oriented spatial organizations, indicative of an uta spatial pattern, distinguished these 10 gue locations or whether more elaborate house posts, doorways, or attached roads characterized these residences. Moreover, differences in artifact assemblages between these 10 houses and other nearby houses should also be investigated to see if a single house undertook communal activities that were not present in neighboring houses (see Boada, 1999). At El Venado, Boada found that some houses had a higher proportion of jars for serving corn beer than their immediate neighbors, which she interprets as evidence that some houses offered parties or other ceremonial events for nearby houses.

Finally, I see little indication of the construction and maintenance of non-residential public spaces at Suta, which would be suggestive of institutional patterns of political leadership. First, the mobility in overall residential locations is one general indication that specific settlement zones were not reserved for the construction and maintenance of communal or public space. Second, the construction of an artificial platform or a burial mound in the northeast settlement zone during the Late Muisca period, also argues against the idea that the internal zoning of the settlement into residential and public areas was a source chiefly political authority. If this construction were placed over or nearby the proposed chiefly residential compound of the Early Muisca period, then I might think otherwise. But the location of this particular feature at the northern edge of the site leads me to believe that public and communal spaces were not built and historically maintained by a chiefly elite for the whole community. Instead, this artificial platform may have been constructed for communal gatherings between uta or zibyn groupings of houses from the northeastern section of the site.

Third, there are few open spaces that were preserved during both time periods that suggest chiefs built and maintained separate, non-residential zones such as communal plazas or uta (Fig. 17). Between the southern portion of the site and the northeastern portion of the site there are two large open areas, measuring .6 and .7 ha between occupational zones. However, these areas seem to be more representative of boundaries rather than central communal spaces. A third area that was never subject to occupation is located directly south of the proposed chiefly residential compounds. This is at least a 2.7-ha area where no residential occupation was ever placed. Even so, there are also several alternative explanations for this unoccupied space. First, this open area may have been the chief’s agricultural fields or gardens (Langebaek, 1987, p. 42). Second, this open area may simply represent the southern boundary of the site.
Third, this area may represent an area that featured a road or walkway, i.e., that some sources cite as connecting the chief’s palisade to cucas, or the house of religious specialists (Rozo, 1997a, pp. 50–52). This broad open area was never surrounded on all 4 sides by residential occupations, which seems unlikely if it was a central communal space. If this open area were a central plaza that facilitated communal gatherings of the whole settlement, I would have expected to see it placed north of the proposed chiefly residential compound and in the middle of the residential settlement. Instead it appears to blend into and define the southern limits of the site.

However, the placement of a large chiefly residential compound and an adjacent open area for fields or roads in the south-central area of the site during both periods of occupation can represent the construction of a central place of symbolic significance that while not wholly communal or public nevertheless reflects the individualistic character of the political authority of a chiefly elite. This is where our knowledge of Muisca house concepts can facilitate an interpretation of whole settlement patterns for it is likely that the chief’s house at Suta was a central feature to this settlement. The chief’s residence, road, and fields were probably central spaces dedicated to communal gatherings for making a place, feeding the house, and/or feeding the gods, which is suggestive that political elites here mobilized labor tributes and ideas about house for their own benefit. If so, then Muisca ideas about space and the animate qualities of houses and settlements were potentially persuasive points of reference for chiefly authority at Suta. In fact, the lack of clearly separate and non-residential spaces strengthens the argument that the chief’s house was a symbolic locus for political authority and a central place within the whole settlement. As documented for other societies where the house becomes an expression of political inequality, the chief’s residential compound may have been constructed to be representative of the nucleated settlement, surrounding settlement, a territorial polity, general life processes, and/or the Muisca universe (see Waterson, 1995, p. 60). At Suta, the political authority to create such central places did not entail control over the internal construction of whole settlement or over the spaces of other individual houses, but instead territorial control appears to have been concentrated on the areas directly around the chief’s residential compound.

Conclusions

One of the principal strengths of native house concepts is their inclusiveness, for native house concepts bring together categories of things that anthropologists traditionally separate into different kinds of analyses (Carsten and Hugh-Jones, 1995). Our analyses show that gue was used to form words that refer to body parts, to residences, to whole settlements, to some kinship relationships, to strangers, basic numerical units and perhaps units of time. If we take all of these concepts that incorporate gue as reflecting a Muisca sense of place, then we should acknowledge that the Muisca house extends beyond the household concept (Wilk and Netting, 1984), beyond traditional settlement units, and is more akin to a holistic concept of existence (Carsten and Hugh-Jones, 1995; Helms, 1998; Pearson and Richards, 1994) that incorporates notions of place, time, and the body. The formation of whole settlements and central places such as Suta was probably related to these complex associations and leads us to wonder how a house could come to stand for a whole settlement. For the Muisca the difference between a residence and a whole settlement may have been one of degree and not of kind for the linguistic analysis of house concepts has enabled
us to propose that Muisca settlements were animate entities, as were Muisca residences. Drawing on these ideas, Muisca leaders may have “fed” houses, followers, and gods and thereby tended to settlements so that these places would not rot and decay. The language of the house was also the language of politics for gue was used to describe hierarchical relationships. Male patterns of authority and inheritance related to the house were persuasive reference points for the development of leadership strategies for subordinate ute leaders, for guechus or non-kin chiefly appointments, and for local chiefs. House concepts and their associations may have provided a well-spring of ideas that were variously applied by political elites to create central places and justify political inequality.

As suggested by Muisca vocabulary for whole settlement, such as gues bacana or gueganecana, our spatial analyses of internal settlement organization at Suta strongly suggests that chiefs did not build and design whole settlements as a kind of public works project. Instead, the settlement of Suta was built one house at a time. The chief’s residential compound may have stood for the whole settlement, but it was one architectural structure among many. In comparative terms, this means that each house was a separate source of prestige and authority, and each residential group was highly autonomous with regards to a central authority and to neighboring residences. The size and degree of population nucleation at Suta was probably proportional to the capacity of chief’s to create relationships of interdependence with other houses. That settlement expanded outward and that more areas were occupied away from the central settlement in the Late Muisca period implies an open and unbounded quality to this settlement, suggesting that neither political authority nor settlement organization was fixed and permanent at Suta. In fact, increases in the spatial distances between houses may reflect the inability of Late Muisca period political leaders to reestablish the political alliances of the Early Muisca settlement. By the 13th century AD, three more settlements, all of a similar size, were founded in the Valley of Leyva (Langebaek, 2001) and the increased signs of competition between houses at Suta (i.e., evenly spaced distribution of houses) may reflect the competition between five local chiefs in the Valley of Leyva. Certainly, Late Muisca period chiefs at Suta were not as successful as their Early Muisca counterparts at attracting and maintaining a large residential population. These findings complement those of investigators working in the Alto Magdelena region of Colombia who have proposed that the individualistic qualities and capabilities of political elites attracted regional populations who expressed their allegiance to a central authority by founding houses near the chief’s house (Drennan, 1995a; Drennan and Quattrin, 1995) because elite demands on the local populace was very low (Drennan and Quattrin, 1995, p. 230). These results also coincide with recent investigations into the basis of political authority among Muisca societies that identify a more individualistic than institutional basis for political authority (Boada, 1998, 1999, 2000; Kruschek, 2003; Langebaek, 1995, 2000).

One of the most interesting results of our analyses is the idea that Muisca chiefs elaborated on the animate qualities of houses in the construction of elaborate residential compounds to demonstrate their influence and control over general life processes, a notion that we hope will challenge archaeologists towards deeper analyses of Muisca leadership strategies. The relationship between humans, their houses, and their settlements was a metaphor that elites and perhaps subordinates elaborated on to express hierarchical relationships. Our linguistic analyses give a very specific sense of the religious content of leadership and we have suggested how these ideas can be evaluated archaeologically. Did Muisca chiefs and subordinate political leaders elaborate on the skeletal and/or animate qualities of gue by building residential compounds that featured larger and a more complex arrangement of house posts and wall construction? To what extent were houses and house posts “fed” and associated with human sacrifices? Were residential structures built and positioned to coincide and observe astronomical phenomena? Were roads or i.e built at the entrance to the chiefly palisade? If so, the notion of “making place” as “putting the road” or “filling the stomach” with offerings can be evaluated as another source of authority that contributed the centrality of the chiefly residence and the animate quality of the whole settlement. There are many symbolic aspects of the Muisca house that chiefs, subordinates, and the general population may have elaborated on to enhance their prestige. It seems unlikely that a chiefly elite exclusively controlled the animate aspects of the Muisca house and settlement, though this is a question for future research. Since the Muisca house was a multifaceted symbol, we hope that future research will explore the degree to which all Early and Late Muisca populations built, cohabited, and fed fearsome residences.

The notion that Muisca political elites used architecture as an expression of “nourishing” a place and feeding the gods is not altogether unexpected for the appearance of a diversity of serving vessels, associated with corn beer, in the 11th century AD has already been interpreted as evidence that Muisca chiefs sponsored feasts to build political alliances and social relationships of debt and obligation. Our analyses put feasting in a broader context for Muisca chiefs seemed to have not only “fed” their followers, but also their houses, their settlements, and the gods. In a culturally specific sense, we find it interesting that Muisca chiefs at Suta may have expressed their authority in terms of nourishing, feeding, and providing for others but that their actual political authority seems to have hinged more on persua-
sion than direct control over productive structures. Muisca political authority may have depended a great deal on immaterial matters: performance, dances, prayers, oratory, ceremony, and timekeeping. The chiefly residence and surrounding settlement was perhaps one of the few material manifestations of their individual political and organizational abilities.

While this study does not resolve the central issue as to the presence or absence of significant wealth differences between houses that are indicative of direct control over local populations and more institutional forms of government, it does clearly suggest that political authority was not based on territorial control over a single whole settlement. Nevertheless, the variation in the continuity of house locations and the evenly spaced spatial patterns of the Late Muisca could reflect economic differences associated with wealth inequality. Political elites of the Late Muisca period may have manipulated house alliances so as to benefit from the local economy (see Boada, 1998, 1999, 2000; Langebaek, 1995, 2000) and as a consequence, competition between Late Muisca period houses may have lead to wealth differences within the population. Alternatively, the evenly spaced Late Muisca period pattern could be seen as a more dispersed spatial pattern associated with more intensive agricultural practices (Drennan, 1988). Even so, the absence of a clustered spatial pattern between houses is a strong indicator of house independence rather than (1) dependence on a central authority or (2) social and economic interdependence between neighboring houses (Henderson, 1998; Wilk, 1991). Moreover, the distances between the central points of Muisca residences only increased by 11 m from the Early to Late Muisca period and this increase is not really meaningful in terms of increased space for agricultural production directly around individual residences. Additionally, discontinuity in house locations suggests that land, specifically a house location, was not a scarce or heritable material resource. Finally, these findings support ethnohistoric accounts that stress the ability of Muisca chiefs to create work obligations (Tovar, 1980) but not tribute obligations that yielded clear material wealth differences within the population (Langebaek, 1987, pp. 47–52). Even so, the issue of wealth differences as evidence of more institutionalized power structures at Suta is an issue that only further research can address.

This study has also contributed to current debates on anthropological and archaeological reconstructions of house societies (Carsten and Hugh-Jones, 1995; Helms, 1998; Joyce and Gillespie, 2000) by showing how the institutional qualities of the house can benefit from existing theoretical debates on the individualistic and institutional bases of political authority (Blanton et al., 1996; Drennan, 1995a; Renfrew, 1974). The individualistic versus institutional bases of power presented here have the advantage of distinguishing between prestige and wealth based frameworks of political negotiation and competition. This approach has been proposed for chieftain societies in the Muisca area and in the Alto Magdalena region of Southern Colombia where individualistic patterns of leadership have been documented at the regional, community, and household levels (Blick, 1993; Boada, 1998, 1999, 2000; Drennan, 1995a, b, 2000; Drennan and Uribe, 1987; Drennan and Quattrin, 1995; González, 1998; Jaramillo, 1996; Kruschek, 2003; Langebaek, 1995, 2000; Taft, 1993; Quattrin, 2000). Moreover, a similar distinction is proposed for Mesoamerican societies (Blanton et al., 1996). In comparative terms, it seems that at Suta the house, gue, was not a political institution linking political authority to personal wealth accumulation. Muisca chiefs could use the house as a forum for organizing activities that enhanced their own political authority but they did not integrate regional populations by directly controlling more general organizational structures (Fried, 1967). A prestige good, gue was another element in the politics of competitive generosity, which like corn beer and feasts, enabled leaders to demonstrate their organizational capacity and create relationships of interdependence.

This study also shows how incorporating native concepts of house into archaeological studies of settlement patterns can generate a more critical reflection over basic units of analyses. Archaeological analyses have focused on households, communities, factions, and regions but tend to equate each of these analytic units with exclusive and unitary phenomena and consequently variation within and between households, communities, factions, and regions tend to be under explored. If we are going to understand variation in past political traditions, we need a more fine-tuned approach to questioning the relationships between archaeological settlement units, social organization, and political authority (Blanton et al., 1996, p. 14). Native concepts of house, because they are complicated and malleable, force us to reconstruct more critically the relationships between social and political organization. Analyzing house terminology to create more detailed and precise units of analysis will facilitate studies that explicitly recognize variation within types. Studies of the house have had precisely this effect within kinship studies and unilinear evolutionary frameworks of social and political organization (Kuper, 1988, 1993). Archaeologists are in a similar position to evaluate more critically political traditions within complex societies by questioning the relationship between native language categories and archaeological settlement patterns (Hare, 2000; Lockhart, 1992). The identification of variation between gue locations and possible uta or zibyn divisions within the settlement at Suta are a first step in this direction. The ideas presented here are not conclusive but it is hoped that future research will expand upon them to uncover the variation in gue.
settlement patterns and provide a more detailed reconstruction of the specific processes by which houses and political leadership developed at Suta and at other Muisca sites.

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