Archaeologists seeking to understand the structure and nature of political and economic power in complex societies, and in particular to assess the degree of centralized political and economic control exercised by elites, must make inferences about these dimensions from the material record. This inferential process is, of course, fundamental to archaeology itself. We would argue, however, that archaeologists studying complex societies are faced with particular difficulties when we ask about the degrees and forms of elite control and its centralization. This difficulty lies in the fact that many of the most dramatic and visible aspects of the material record of complex societies are purposively created and manipulated by individuals and institutions to make public "statements" or "claims" about their power and authority. These claims are directed primarily at a contemporary audience, but in some sense they are also directed toward us—toward posterity. Because these material expressions of ideological claims may sometimes obscure actual relations of power, they cannot necessarily be taken at face value by archaeologists seeking to understand prehistoric power relations. Thus, we face a methodological dilemma. If the monumental remains constructed, financed, or otherwise brought into being by prehistoric elites can be seen as claims rather than as simple reflections of power, authority, or control, then we must consider more closely our methods for making inferences about the past from these remains.

We are not proposing a solution to this problem; instead, we only examine a few dimensions of the dilemma. This dilemma, that aspects of the material record are purposively manipulated to express elite claims and thus are not unambiguously interpretable, is not confined to studies of complex societies, but we would argue that it is in complex societies that this danger, that elite claims of control may be exaggerations or outright "lies," is most profound. However, this expressive aspect of monumental remains is not the focus of this paper. Instead, we focus on the ambiguities of interpretive conventions in which the pres-
ence, scale, or form of monumental architecture is used to address issues such as centralization.

The conventional association between monumentality and social complexity is most visible in origin studies. Among the most important indicators of incipient "complexity"—a term used as a gloss not only for a multiplicity of social or status roles but also for inequality—are monumental constructions. These constructions may be walls, platforms, large buildings, irrigation networks, or other features that embody considerable quantities of human labor. Of course, the exact quantity of labor or volume of soil, rock, bricks, or plaster that constitutes monumentality is undefined, and many contemporary arguments regarding early complex societies range around this ambiguity. The form of such structures also invites interpretations about the presumed authority behind them, so that, for example, arguments about the identification of temples, palaces, and public works assume a central significance inasmuch as palaces "stand for" political elite, temples for theocratic elite, and so on. The organization of labor and, more, of authority that lies behind monumental structures has thus been of central interest for those studying early complex societies.

It is not only in origin studies that monumental constructions assume an interpretive burden, however. Although the mere presence (and to a certain extent scale and form) of large buildings or built features has been taken to signal the start of social or political complexity within what are more obviously state or imperial polities, archaeologists have also attempted to wrestle social and political meaning from monumental remains. Archaeologists of complex societies have not been content, and rightly so, simply to measure the extent of state or imperial systems by mapping the distribution of structures and artifacts exhibiting a unitary "imperial" or "urban" style. Instead we have also been interested in assessing the degree of centralized political and economic control in the polities we study, and the temptation to base this assessment on those same distributions of monumental architecture or artifacts is great. However, the relationship between archaeological patterns that may reflect centralized elite control and the actual dimensions of control is neither simple nor unambiguous.

This paper considers the case of the Vijayanagara empire of southern India and some of the material and textual evidence of and claims to elite control expressed by both the rulers of the empire, the Vijayanagara rayas, and by cooperating and competing groups of other elites. In the case of Vijayanagara, there is no simple relationship between the degree of centralized political and economic power in a region and the nature of the material record—even monumental structures of a distinct imperial style. If this is the case there, then it seems unlikely that such a simple relationship exists anywhere. The lack of a simple relationship does not, of course, imply the lack of any relationship, and our challenge, then, is to investigate more fully some of the connection between power relations and their material expressions.

**VIJAYANAGARA**

The Vijayanagara empire was established in the early fourteenth century, when a small kingdom at the interstices of more established seats of power expanded its
territory through military conquest and alliance-building, rapidly transforming itself from a petty principality on the resource-poor northern Karnatak Plateau to a vast territorial empire claiming large portions of southern India (Fig. 1). There is an extensive historical literature on Vijayanagara (Karashima 1992; Krishnaswami Aiyangar 1991; Mahalingam 1951; Nilakanta Sastri 1966; Sewell 1982; Stein 1980, 1985, 1989; Venkata Ramanayya 1933, 1935), but archaeological research has begun more recently (Dallapiccola 1985; Devaraj and Patil 1991a, 1991b; Fritz et al. 1985; Morrison 1990, 1992; Nagaraja Rao 1983, 1985; Narasimhaiah 1992; Sinopoli 1985, 1988, 1993). The only archaeological program of study that has adopted a regional approach to Vijayanagara-period landscapes is the Vijayanagara Metropolitan Survey (Lycett 1991, 1994; Morrison 1991a, 1991b, 1992; Morrison and Sinopoli 1992; Sinopoli 1991; Sinopoli

Fig. 1. Southern India, with locations of places mentioned in the text. The core area used for the analysis of inscriptions is shaded.
and Morrison 1991, 1992). In the discussion that follows, we draw on some of the evidence from that survey, combined with information about monumental architecture and contemporary inscriptions throughout the empire.

The Vijayanagara period can be divided conveniently into four temporal divisions, roughly corresponding to the fourteenth, fifteenth, sixteenth, and seventeenth centuries. The Early Vijayanagara period saw the rapid growth of the large capital city of Vijayanagara and the early imperial conquests of the region to the south and west of the city. To the north, the Bahmani empire prevented territorial expansion, and a pattern was established in which the districts north of the city were contested constantly. During that period, control of many important coastal trading cities on the Kanara coast was maintained despite opposition from the Bahmanis and, later, its successor states. Vijayanagara was just one of many kingdoms, however, and in the first decades of the Early period, Vijayanagara rajas did not claim imperial titles (Kulke and Rothermund 1986).

In the Middle period, Vijayanagara emperors expanded their conquests across the peninsula and, despite many setbacks, were able to claim large portions of the peninsula south of the city of Vijayanagara, although a campaign by the Gajapati kingdom to the northeast caused Vijayanagara to lose its hold over much of the Tamil country for a time. Despite the breakup of the Bahmani empire into several smaller kingdoms, Vijayanagara was unable to expand its territory north of the river.

The Late Vijayanagara period is generally acknowledged to be the period of maximal imperial control and expansion, and a succession of military campaigns and royal construction projects mark the map of South India as far as northern Sri Lanka. In and around the city of Vijayanagara, we have documented a major expansion of settlement, the construction of monumental temples and other structures, and an intensification of agricultural production during this period (Morrison 1992; Morrison and Sinopoli [in press]).

In A.D. 1565, the Vijayanagara armies were defeated by a coalition of Bahmani successor states, and the capital city was sacked, looted, and burned. The emperor and his court moved to the southern city of Penukonda, where the capital stayed for some time before being moved again to Chandragiri and then to Vellore, with each successive capital farther south than the previous. Although the location of the capital shifted in this period, which we term the Penukonda period as a matter of convenience, the empire persisted as a (somewhat reduced) regional polity into the late seventeenth century (Nilakanta Sastri 1966:305).

ARCHAEOLOGICAL PATTERNS IN DISTANT, CONQUERED AREAS

Given this brief background in political history, we consider some of the materially expressed claims of control made by Vijayanagara royal elites, the emperors and their wives, at two distinct spatial scales. The first is the empire as a whole, the second that smaller region surrounding the capital city that has been considered by some (e.g., Stein 1989) to be the core area of direct central control.

The Vijayanagara period is marked by a distinctive style of temple architecture, albeit one that drew heavily on previous styles from southern India. Michell (1993) has also defined what he refers to as the Vijayanagara courtly style of secular architecture. Other monumental constructions include irrigation facilities
such as canals and large reservoirs (Morrison 1992, 1993). Elites directly financed and commissioned construction projects, most often through the reassignment of various taxes and rights in agricultural produce from specified villages. Royal elites were not the only ones involved in the construction of monumental projects, and some constructions, such as reservoirs, were not financed by high-level elite but rather by coalitions of, for example, local landowners. The spatial distribution of royal patronage is patchy, with the selection of locations for monumental projects related primarily to the locations of resources. These resources included developed agricultural regions, established fortifications and roads, and trading and production centers (e.g., weaving [Ramaswamy 1985]), but they also included less-tangible “resources” derived from the preexisting landscape of power. Temples and palaces were constructed in locales with powerful associations with goddesses, gods, and previous rulers. Royal actions that left material traces often took the form of construction: renovating, rebuilding, restyling, and realignment. Thus, it is possible to see in some of the monumental remains of the Vijayanagara period the results of central (that is, royal) elite action. However, as outlined below, this central action does not necessarily translate into centralized control.

First considering the empire as a whole, several examples of material statements by Vijayanagara rayas can be seen. Rulers sought to expropriate existing symbols and structures of authority. Stein (1989:1) suggested that the royal emblem of the boar (varaha) was adopted from the Chalukyas of Badami, a sixth- to eighth-century kingdom claiming a South Asian “universal sovereignty” (Dikshit 1980; Inden 1990; Stein 1989). The Chalukyan capital, Badami, lay a short distance north of the city of Vijayanagara. Varaha emblems can be found carved into Vijayanagara-period structures such as gateways and temples. In the Late Vijayanagara period, one Vijayanagara king constructed a bastion in the ancient city of Badami, an area that lay well outside the boundaries of the empire (Gopal 1985).

The port city of Mahabalipuram lay far to the south of the capital in what was to become the Padaividu rajya or administrative district under Vijayanagara (Karashima 1992:182). This was part of the region earlier called Tondaimandalam [Kulke and Rothermund 1986:120–121]). Mahabalipuram was the chief port of the imperial Pallavas (Nilakanta Sastri 1966:151) between the sixth and ninth centuries. When Mahabalipuram was conquered by Vijayanagara forces in the late fourteenth century (Karashima 1992:19, what we have termed the Early period), the celebrated shore temple, seven rathas, and other sacred and secular structures were neither destroyed nor defaced. Instead the city was realigned, with access funneled through several Vijayanagara-period structures such as gateways and temples. In the Late Vijayanagara period, one Vijayanagara king constructed a bastion in the ancient city of Badami, an area that lay well outside the boundaries of the empire (Gopal 1985).

In the late fifteenth century, the Vijayanagara rayas sent agents to subdue the rebellious chieftains of Padaividu (Karashima 1992:19). These warriors established a fort at Gingee. The Gingee fort sits atop imposing rock outcrops and is massively constructed. Inside the fort are temples, storage structures, and even agricultural land. Inscriptions indicate that Late Vijayanagara kings (often in conjunction with local elites) were actively involved in organizing resource flows in...
and around Gingee, setting aside the revenue from specific villages to support worship in the Gingee temples, for example (Karashima 1992:22–23).

The military logic of a fort like Gingee is evident. Less obvious, but equally important for both asserting and legitimating royal rule, was the patronage of temples (Appadurai 1978; Stein 1980). Kings asserted their authority over specific areas by constructing and endowing temples in those areas (see Morrison and Sinopoli 1992). A striking example of this is the liberal royal patronage of the distant temple of Tirupati in the Chandragiri rajya (e.g., Vijayaraghavacharya 1984). Vijayanagara rulers liberally endowed the temple at Tirupati, and many of them were crowned there. Material evidence of the involvement of one Vijayanagara king at Tirupati, Krishnadevaraya, can be seen in the life-size bronze statues of him and two of his queens still found in the temple (Wagoner 1993).

Gingee, Mahabalipuram, and Tirupati are just a few examples of distant locales where monumental constructions of the Vijayanagara period can be found. In fact, some of the most impressive structures of the period are found in parts of the empire (and even out of it) far from the apparent seat of central power, the capital city. Is there, then, a paradox in the regional material record of the Vijayanagara empire? We suggest that such a “paradox” is, in fact, only a product of archaeological systematics that assume that the meanings of monumental constructions are relatively straightforward. There is, of course, no paradox at all because on the one hand arenas for the exercise of royal power were structured by factors more complex than distance, as noted above, and on the other hand the “messages” of these impressive forts, temples, storehouses, and other structures are not unambiguous. The gateways and temple complexes do not simply reflect extant power, they also constitute claims to power, claims that may potentially be contested by elites and nonelites. These distant constructions, then, although recognizably Vijayanagara in style, cannot be used as simple proxies for or markers of centralized elite control.

ARCHAEOLOGICAL PATTERNS WITHIN THE CORE REGION

Among historians of Vijayanagara, arguments have raged over the degree and extent of political and economic control exerted by the Vijayanagara rayas over their extensive empire (see Sinopoli and Morrison [in press] for a fuller discussion). Most would agree, however, that within the “core” region of the empire, Vijayanagara rulers exercised powerful centralized control (Karashima 1992; Nila-kanta Sastri 1966; or relatively more powerful centralized control, cf. Stein 1989). No consensus exists about the precise boundaries of the core region, but it can be approximated by several districts of what is now northern Karnataka, surrounding the imperial capital of Vijayanagara.3 It must be noted, however, that the largest and most imposing Vijayanagara-period monuments, except for the capital city itself, are not concentrated in this core region but occur throughout the empire, often in areas quite distant from the center, areas where the degree of centralized economic and political control exercised by the Vijayanagara rayas was, by all accounts, much less intense than in the core region.

In the northern part of the core region lies the monumental capital city of Vijayanagara. The city contains a walled zone of elite residences and public buildings, many of which show scenes of elephants, horses, and other symbols
of royalty and military might (Fritz et al. 1985; Narasimhaiah 1992). The city is also heavily fortified, perhaps as much to maintain internal control as to divert external attack (see Sinopoli and Morrison [in press]). The city of Vijayanagara was itself established in a place with long-standing sacred associations. A locus of pre-Vijayanagara temples north of the city was expanded under royal patronage to become a large walled complex with multiple towering gateways, or gopura, that are among the hallmarks of the Vijayanagara temple style. Other temples were built to commemorate royal military victories, such as the Krishna Temple, which housed an image captured from the rival Gajapati empire (Venkata Ramanayya 1986: 438).

Although the capital city certainly constitutes the premier locus of Vijayanagara monuments (cf. Fritz et al. 1985; Michell and Filliozat 1981), particularly those of the Vijayanagara courtly style (Michell 1993), monumental constructions occur throughout the "core" region. If one were to consider only the archaeological record of Vijayanagara and map the distribution of imperial architecture, there would be little difficulty including most, if not all, of this area in the empire. However, even within this area neatly defined by archaeological conventions as imperial, it is possible to discern a disjunction between the distribution of monuments and the distribution of central authority and activity. This disjunction stems, in part, from the multiply contested nature of political control as well as from considerations of resource distributions and political exigencies. The contested, patchy, and at times powerful centralized political authority of the Vijayanagara rayas is only erratically reflected in the material record. To more fully examine the complex texture of power relations we must turn instead to another line of evidence, that of contemporary texts.

**PATTERNS OF GIFTING: A CONTROLLED COMPARISON**

Contemporary texts of the Vijayanagara period include literary and religious works (e.g., Wagoner 1993), accounts of foreign travelers and ambassadors (Morrison 1992), and, most abundant, inscriptions. Vijayanagara inscriptions usually refer to gifts or donations, often made to Hindu temples (Appadurai 1978; Breckenridge 1985; Karashima 1992). Many of these gifts can be thought of as investments, in which donors received both religious and material gain from their actions. Other inscriptions record agreements of various sorts, tax remissions, dispute resolutions, and the granting of offices and titles. The inscriptional record, then, chronicles patterns of access to and participation in fields of elite economic and social activity. Inscriptions typically include references to the date (day, month, and year), to authority figures such as kings and local leaders, and to the terms of the grant or agreement (see also Morrison 1992). Two kinds of inscriptions exist: public and semipublic lithic inscriptions carved into temples, built into reservoirs, and set up on slabs in villages and fields; and private and semiprivate copper-plate inscriptions held by individuals or associations. Unfortunately, sample sizes are not sufficient to compare contents of these two types, and the following discussion is based on an analysis of 1,866 inscriptions,4 almost all lithic inscriptions, from the "core" region of the empire.

In areas closest to the city, the overall temporal distribution of inscriptions follows an archaeologically identified pattern of two distinct periods of settle-
ment expansion and agricultural intensification, one during the Early period, and the second in the Late period (Morrison 1992). However, when a somewhat larger area is considered, including the coastal districts of North and South Karnataka, a different tempo is evident. In this region, considered here, the volume (number) of inscriptions increases steadily through time, falling off sharply in the Penukonda period. Chronological patterns of inscriptions vary considerably between districts; a fuller discussion of district-wise patterns is found in Morrison (1992). In a rough sense, the volume of inscriptions measures the intensity of economic and political activity among elites and corporate groups. Although some inscriptions do refer to the construction of monumental or other constructions, most do not, and although the volume of inscriptions through time does correspond with the pace of construction, it also reflects the tempo of claims, demands, complaints, and commemorations. Thus, the inscriptional record should not be taken as isomorphic with the archaeological record of forts, temples, palaces, and agricultural facilities but rather as a distinct but not unassociated arena for the expression and constitution of power by kings, local elites, merchants, cultivators, royal officers, and others.

DONORS AND GIFTS

We consider here a simplified typology of donors: royals, local elites, officers of the king, and others. Royals include kings, queens, and identified members of the royal household. Royal donors are relatively easy to identify, but the categories local elite and royal officer are more ambiguous, and individuals are distinguished by certain titles (see Morrison 1992; Sircar 1966). Local elites are defined as those using the title nayaka, although others not identified as nayakas certainly also qualify as local elites. The interpretations of historians regarding the degree of independence of royal officers and local elites from the center differ greatly (e.g., Appadurai 1978; Karashima 1992; Nilakanta Sastri 1966; Stein 1980, 1989), and it is clear that this varied by time and place. Nayakas often expressed fealty to the Vijayanagara kings in their inscriptions (particularly in the coastal districts), and Karashima (1992: 27) has emphasized the degree to which nayakas derived legitimation from their association with the center and were directed by Vijayanagara kings. Certainly, nayakas also sought to increase their own influence (e.g., Appadurai 1978) and often broke free of imperial bonds (Nilakanta Sastri 1966). By the Late Vijayanagara period, nayakas were increasingly imposed on areas by the center (for example, northern Telugu warriors in the southern Tamil country) rather than drawn from traditional local leaders. However, the Late Vijayanagara period has also been suggested to be the period of maximum power and influence on the part of the nayakas (e.g., Karashima 1992: 107; Stein 1980: 396–398). Farther to the south, outside the “core,” or what Narayana Rao, Shulman, and Subrahmanyam (1992: xii) call the “older decaying imperial centre,” nayakas were able to establish independent polities during the Penukonda period and into Colonial times.

Royal officers are also distinguished by their titles (cf. Morrison 1992; Sircar 1966) and although appointed by the center may also have exercised some independent control. This group is not considered at length here. The omnibus category of “others” includes merchants, village assemblies, and many individuals.
**Table 1. Cross Tabulation of Donor by Gift, All Time Periods Combined**

<table>
<thead>
<tr>
<th>GIFT</th>
<th>ROYAL</th>
<th>LOCAL ELITE</th>
<th>OFFICER</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>COUNT</td>
<td>COUNT</td>
<td>COUNT</td>
<td>COUNT</td>
</tr>
<tr>
<td>Village</td>
<td>148</td>
<td>212</td>
<td>97</td>
<td>99</td>
</tr>
<tr>
<td>26.6 row %</td>
<td>148</td>
<td>212</td>
<td>97</td>
<td>99</td>
</tr>
<tr>
<td>56.3 col. %</td>
<td>148</td>
<td>212</td>
<td>97</td>
<td>99</td>
</tr>
<tr>
<td>Land</td>
<td>43</td>
<td>145</td>
<td>73</td>
<td>252</td>
</tr>
<tr>
<td>8.4%</td>
<td>38.3%</td>
<td>28.3%</td>
<td>14.2%</td>
<td>49.1%</td>
</tr>
<tr>
<td>16.3%</td>
<td>24.9%</td>
<td>22.7%</td>
<td>36.1%</td>
<td></td>
</tr>
<tr>
<td>Agricultural facility</td>
<td>10</td>
<td>38</td>
<td>21</td>
<td>29</td>
</tr>
<tr>
<td>10.2%</td>
<td>38.8%</td>
<td>21.4%</td>
<td>29.6%</td>
<td></td>
</tr>
<tr>
<td>3.8%</td>
<td>6.5%</td>
<td>6.5%</td>
<td>4.2%</td>
<td></td>
</tr>
<tr>
<td>Nonagricultural</td>
<td>53</td>
<td>159</td>
<td>118</td>
<td>209</td>
</tr>
<tr>
<td>9.8%</td>
<td>29.5%</td>
<td>21.9%</td>
<td>38.8%</td>
<td></td>
</tr>
<tr>
<td>20.1%</td>
<td>27.3%</td>
<td>36.7%</td>
<td>29.9%</td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td>9</td>
<td>29</td>
<td>13</td>
<td>109</td>
</tr>
<tr>
<td>5.6%</td>
<td>18.1%</td>
<td>8.1%</td>
<td>68.1%</td>
<td></td>
</tr>
<tr>
<td>3.4%</td>
<td>5.0%</td>
<td>4.0%</td>
<td>15.6%</td>
<td></td>
</tr>
</tbody>
</table>

Note: Cell counts, row percentages, and column percentages.
Chi square = 247.2, df = 12, \( p < 0.0001 \).

Known only by name and not by status. It must be noted that “others” are sometimes low-ranking elites whose influence is regionally important; for example, groups of merchants were always major figures in the inscriptions of North Kanara District, an area of coastal trade centers (Morrison and Sinopoli 1992; Subrahmanyam 1990). This category probably also conceals local elites and thus, like royal officials, is of more ambiguous significance.

The subject matter of inscriptions is similarly simplified here into: villages (the assignment of certain revenue rights from a village); land; agriculture-related inscriptions; and nonagricultural inscriptions. In this latter category are included building projects, but nonagricultural inscriptions more often relate to smaller gifts to temples and religious institutions: lamps, money, jewelry, and so forth. A comparison between donors and gifts reveals significant differences across categories (Table 1). Kings focus their primary attention on gifts of villages (56 percent of royal donations concern villages). However, more villages are actually given by local elites (38 percent) than by royals (27 percent). Local elites and royal officers divide their attentions in a similar way between gifts of villages, nonagricultural gifts, and land. All categories of donors contribute to the construction of agricultural facilities, but gifts of land are dominated by “other” donors (merchants, groups of cultivators, and individuals).

It is thus possible to establish patterns of gifting. Local elites patronize temples (just as kings do), give gifts of agricultural facilities, gifts of land, and resolve disputes. Kings do all those things, but above all they give villages. Agricultural facilities and land are the concerns of all categories of donors (cf. Morrison 1992). Nonagricultural inscriptions, which include among other things construction projects and gifts of cash and livestock to temples and Brahmins, are not the exclusive domain of elites, although differences in the scale of donations certainly exist (Mor-
Early
Middle
Late
Post

Fig. 2. Patterns of donation through time by donor category. Percentage of total inscriptions by time period is indicated for each class of donor.

rison 1992). Thus, "others" such as merchant groups or groups of cultivators tend to give somewhat smaller gifts than kings or local elites, but there is no marked difference between the scale of royal and local elite gifting.

Inscriptions, like structures, cannot be unambiguously interpreted. Certainly they represent claims of power and authority, but they also reflect the extent to which kings, local elites, and others are able to reallocate resources such as taxes, rights in land and produce, labor, and offices. However, not all transactions are memorialized in inscriptions. Thus, these texts also have a dual identity, constituting both "actual" and "claimed" power and authority much as structures do. The overall pattern of inscriptions shows that royal donations account for only about 14 percent of inscriptions, with local elites and others (many of whom are probably local elites themselves) dominating the record. Breaking this pattern down by time period (Fig. 2), it is clear that local elites and others are consistently the primary donors, and in the post-Vijayanagara period, when the capital shifted south to Penukonda, local elites come to dominate all gifting, with their inscriptions outnumbering those of others by a two-to-one ratio. Thus, even in the core territories, royals did not have exclusive power to allot resources and engage in such material and symbolic actions as endowing temples.

DONORS AND DISTRICTS

A closer look at the spatial pattern of inscriptions shows significant differences between districts in the types of donors for every time period (Table 2). A cross
tabulation of donors by districts, controlling for time period, gives a measure of the difference between expected and actual values of donations, given the expectation that donations will be evenly distributed by donor type within the core region. Sample size by district is quite variable, and a large number of inscriptions from one district either may indicate a large number of donations or may reflect archaeological and epigraphical interest in that district. Thus, residuals may better reveal patterns rather than raw values.

The standardized residuals of the chi square indicate whether a particular donor class occurs in larger- or smaller-than-expected frequencies. This number consists of the ratio of the difference between the observed and the expected cell frequency to the square root of the expected cell frequency and is the square root of the contribution to the chi-square statistic for each cell (Haberman 1978; Koopmans 1987; Norusis 1992). By examining the standardized residuals, it is possible to see both the direction and magnitude of the contribution to chi square of each cell, where a cell represents donations by a particular donor class in a specific period in a specific district. That is, a negative residual indicates a lower-than-expected cell frequency given the null hypothesis, and a positive residual indicates a greater-than-expected cell frequency. Thus, these patterns indicate not the absolute importance of gifting by any particular donor category, but the unexpected divergences in the occurrence of these categories, under the null hypothesis of no association between donor and district. Standardized residual values by district are indicated on the maps in Figures 3–10.

**ROYAL GIFTING THROUGH TIME**

In the Early period (Fig. 3), royal donations were differentially focused on a contiguous area immediately around the city. Residuals in this central corridor are strongly positive, indicating unexpectedly high levels of royal gifting. High negative values in the coastal districts and two southern districts indicate low levels of royal inscriptions.

In the Middle period (Fig. 4), royal gifting occurred more often than expected in a somewhat larger area, but this area does not include Bellary, the home district of the capital city. Some expansion is seen in the southern districts, particularly Mandya, but the decrease in the level of royal gifting in Bellary District is the most striking difference (mirrored in an overall decline in the sheer number of royal donations in this Middle period). Thus, the rayas, arguably both local elites themselves as well as agents of a nascent imperialism, began by focusing
Fig. 3. Standardized residuals for royal donors. Based on cross tabulation of donor by district for the Early Vijayanagara period. Positive residuals are shaded.

By the Middle period (Fig. 5), royal gifting was widespread across the core region, but lower than expected frequencies of royal gifting occurred not only at the edges, but also in Chitradurga and Chikmagalur Districts, areas that were under relatively close central control. The Late Vijayanagara period saw the max-
imal expansion of central political control, and yet only the home district of Bellary indicates very strong positive residuals. The overall number of royal inscriptions increased sharply in the Late period, but so did the volume of inscriptions by all donor classes.

In the Post-Vijayanagara or Penukonda period (Fig. 6), royal donations occurred at lower than expected frequencies everywhere except South Kanara, which had never before been a major focus of royal interest; Chikmagalur, which had seen unexpectedly low levels of royal investment during the Late period; and Hassan, a recipient of consistent royal gifting. Hassan District contains a
Nascent central power in the Early period is reflected in the pattern of royal gifting, but the imperial consolidation of the Middle period and the imperial apo­gee of the Late period are not reflected by contiguous patterns of royal elite in­volvement. In part, it could be argued that kings did not need to build their image at home. Most inscriptions refer to rather routine economic transactions, although some also commemorate more visible projects. Perhaps many royal ac­tivities in the home districts of the nayás were simply never recorded. Equally important, however, is the pattern discussed above in which elites differentially

significant “resource,” in the site of Dvarasamudra, capital of an earlier imperial polity, the Hoysalas (eleventh to fourteenth centuries).
concentrate their energies in areas of existing resources. For example, a large proportion of temples in this core region (but outside the city) exhibits building episodes from earlier periods as well as the Vijayanagara period. To follow out some of these patterns we must consider other donors as well.

LOCAL ELITE GIFTING THROUGH TIME

Local elites may be considered to be competitors for power and authority, with some local elites claiming kingly status on their own (Appadurai 1978; Karashima
Local elites generally acknowledged the suzerainty of the Vijayanagara rayas, although they often broke free of the center. Patterns of local elite activity can be expected to be patchy, because these donors do not represent a single interest group. In the Early period (Fig. 7), donations by local elites were curiously low outside three of the southern districts. Only one of these districts (Tumkur) overlaps with the region showing unexpectedly high numbers of royal donations. In the Middle period (Fig. 8), local elite donations are evident in a number of districts, including the coastal and mountain districts of North Kanara and Shimoga, where many important trading cities were found. In the Late period (Fig. 9), when central control was at its peak, the area in
which unexpectedly high numbers of local elite inscriptions occur was not reduced, including, in fact, Chitradurga and Chikmagalur Districts, in the heart of the royal territory. The highest residual values for local elite inscriptions in the Late period occur in Hassan District, an area that was also a focus of royal inscriptive interest.

Finally, by the post-Vijayanagara or Penukonda period (Fig. 10), a major expansion can be seen in the provenience of local elite economic and political activity. Thus, although the well-documented loss of central power after the fall of the city has evident consequences in the inscriptive record, the exercise of economic and political power does not reflect in a simple way the distribution of archaeological and epigraphic remains.
DISCUSSION

In identifying the extent and structure of centralized political and economic control in complex societies, archaeologists are necessarily limited to bodies of material evidence created or distributed through elite involvement, including monumental architecture. We have suggested that monumental architecture cannot be unambiguously interpreted as evidence of centralized control or even of involvement by "central" elites, and yet in describing a few of the construction and renovation projects of the Vijayanagara rajas, we have not hesitated to associate certain projects with these elites. This association between specific projects and specific rulers is only possible because of the existence of written texts of the
period. One might legitimately ask not only with whom—kings, local elites, or others—monumental structures are associated, but whether such an association is even automatic. Certainly the invariant association posited by Wittfogel (1957) and others (see discussion in O’Leary 1989) between large-scale irrigation facilities and centralized authority has been found to be empirically incorrect (Hunt 1988; Hunt and Hunt 1974; Netherly 1984; see also Morrison 1992 for evidence that many irrigation facilities at Vijayanagara were not [and still are not (Sivamohan 1991)] elite directed or financed). This is a valid concern, but one that is not addressed here.
Even if we can assume that monumental structures were in some way associated with elites, which elites? Do such structures necessarily imply centralized control over the area in which they are found? As archaeologists interested in tracing the areas of "influence" and control of prehistoric empires, we may be tempted to use the distribution of structures, symbols, and styles of imperial policies as proxy evidence for their sphere of control. We suggest, however, that this procedure—this interpretive convention—is not fully justified. The problem lies in the ambiguous status of such features as "claims." Surely "real" power in the sense of either coercive force or the ability to mobilize resources lies behind monumental remains, or they could not have been constructed. That such "claims," however materially impressive, can give a lie to the actual distribution of power relations is made evident by examining more closely patterns of royal investment in the Vijayanagara period. These patterns reflect a complex structure of authority parceled out and contested by many groups of elites and nonelites, one in which royal investment (so often associated with archaeologically recoverable structures and features) does not simply reflect areas of royal power. We have already noted the existence of a great many monumental Vijayanagara temples, forts, and other structures in the more distant parts of the empire despite the apparent lack of strong central control in those areas.

Within the core region, kings, local elites, and others (not considered here) used their economic and political "capital" selectively. Thus, there is a disjunction between the distribution of monumental architecture and inscriptive records of gifting, and the degree of central political and economic control. Part of this ambiguity stems from the complexity of power relations and the multiplicity of potential authorities in the Vijayanagara empire. Nonroyal elites could construct forts and temples in the core region; without inscriptional data one cannot distinguish these structures from those constructed under the direction of the center. The distribution of royal inscriptions and monumental architecture, even that known to have been constructed under royal patronage, also varies, but these patterns of variation are not completely coincident with the patterns of power and authority. This disjunction stems from the dual nature of such features as both reflections of and claims of control, claims that could be contested or that construct rather than represent centralized authority. Archaeologists need not uncritically accept these claims through a kind of methodological naïveté. Instead, our recognition of organizational variability within and between complex societies and, more, of the multiple interpretive implications of material patterns created by complex societies should impel us to develop the methodological tools for partitioning and accounting for this variability. Monumental architecture, imperial styles, and documentary records constitute important forms of information in archaeological studies of complex societies, but we must come to terms with their interpretive ambiguity and begin to develop ways of addressing it more squarely.

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NOTES

1. Actual both in the sense of material and effective, but claims may also be contested by others and we include this contestation as an aspect of the actuality of power. Discussions of this point can be found in Mann (1986).

2. More specifically, the Early Vijayanagara period dates from A.D. 1330-1405, the Middle Vijayanagara period from A.D. 1406 (the reign of Devaraya) to 1504, the Late Vijayanagara period from 1505 (Vira Narasimha) to 1565 (the battle of Talikota, which prompted the abandonment of the city of Vijayanagara), and the Post Vijayanagara or Penukonda period from 1566 to 1700. These dates were chosen to follow conventional periodization as closely as possible, but also to facilitate coding of inscriptions dated to regnal period. Obviously, a more refined chronological treatment would be preferable, but, as should become evident below, sample size issues in the chronological and spatial distribution of inscriptions require some temporal lumping. As discussed in Morrison (1992), these divisions do actually correspond to major periods of political and economic change in the area around the city of Vijayanagara.

3. Admittedly, this is a very poor approximation and should be considered a trial formulation. The absence of areas in the modern state of Andhra Pradesh is a serious difficulty, and one that is currently being remedied. The boundaries of this “core” area are also quite liberally drawn, with areas as far as 200 km away from the capital included.

4. Inscriptional data were coded into a data base containing basic information on dates, rulers, scripts, donors, donees, content, location, and context of the inscription. Codes are based on either full translations or published summaries, and both unpublished and published inscriptions are included. However, this sample in no way represents all the extant Vijayanagara-period inscriptions nor is it based on systematic field collections. Coding procedures are outlined in Morrison (1992).

5. The standardized residuals represent four separate contingency tables, one for each time period (donor by district). Space does not permit the inclusion of all four tables (each four by 13) here. Complete data on 11 of the 13 districts are given in Morrison (1992).

6. Although we have emphasized the value of standardized residuals for identifying patterns of unexpected divergence from independence, their magnitude is also meaningful. Under the null hypothesis, the standardized residuals approximate a standard normal distribution. Thus, deviations from zero can be interpreted in terms of standard normal probabilities. For example, values greater than or equal to 1.96 would have a 5 percent chance of occurrence, and values greater than or equal to 2.58 would have only a 1 percent chance of occurrence (Koopmans 1987:415-417).

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ABSTRACT

Elite claims of power and authority may take material expression in both the archaeological and historical records. Such claims may be expressed through the renovation, rebuilding, realignment, or construction of monumental architecture; the appropriation of symbols of power and authority; or may be made outright in verbal and written media. The South Indian empire of Vijayanagara (c. A.D. 1300–1600) laid claim to a vast portion of the Indian subcontinent, but scholars agree neither on the nature nor the extent of power exercised by the imperial center. In this paper, we examine the ideological claims of the Vijayanagara political elite, as they are materially expressed. Specifically, we differentiate the forms and spatial extent of centralized power and centralized authority in the imperial “core” versus several “peripheral” regions through the distribution and form of fortifications and temples and through a quantitative spatial analysis of inscriptions. Such claims can be related to material conditions only in the “core” region; relationships between ideological claims and archaeological patterns in that area suggest avenues for future archaeological research in complex societies. KEYWORDS: Monumentality, South Asia, power, archaeological inference, Vijayanagara.