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SYSTEMIC NESTING AMONG THE ANASAZI: AD 900-1140

Carl G. Drexler

Over the past 150 years, archaeologists have proposed a number of models and hypotheses to explain the growth and florescence of the Anasazi system based in Chaco Canyon, New Mexico. This paper gives an overview of some of those models, then explores how World System Theory (WST) might be used to understand the social and economic processes at work during the pinnacle of settlement in Chaco Canyon.

Introduction

Since its rise in the 1970's, World Systems Theory has spawned a number of research topics and concepts that facilitate new ways of understanding old foci of archaeological scholarship. One of these foci is the finely detailed analysis of the structure of sites within a given culture or, under the World Systems unit of analysis, world. Rarely in archaeology is the clean core/periphery/semiperiphery organization of a world apparent, as close study introduces vagaries into our understandings of these terms. One part of Robert Jeske's (1999) study of the Mississippian world at the time when Cahokia was flourishing is the nesting of peripheries within the world. This paper addresses the topic of peripheral nesting in the context of the Anasazi, the prehistoric residents of northern Arizona and New Mexico, whose locus of power lay between the steep sandstone walls of Chaco Canyon.

Chaco is particularly well-suited for this study as it is, along with Cahokia, one of the very few instances where a complex, stratified society arose in prehistoric North America outside of the Mayan and Aztec cultures to the south. Perhaps the most romanticized of American archaeological areas, the Southwest was home to a wide variety of

cultures and subcultures. The Anasazi are the best known of these, and their great houses at Mesa Verde and Chaco Canyon draw throngs of visitors every year. The peculiarity of the Anasazi, in that they created these large sites with complex masonry and carefully calculated plans, has led to the development of the Chaco-based elements of the Anasazi to be termed the "Chaco Phenomenon," as it is without parallel in the region. This "phenomenon" offers perhaps the best potential for the application of a World Systems viewpoint.

There is one problem with this area though, which happens to be an outgrowth of its scale and popularity. Chaco has been such a widely studied culture area that a proliferation of theories pertaining to its social organization, systemic functioning, and level of complexity has resulted in a morass of theory. Various authors have interpreted Chaco as being a state, a center with only limited local power and negotiated power with its outliers (Durand and Durand 2000:101), and as the center of a wide network of outlier communities over which it exerted a measure of coercive power and expanded to gain control of desirable resources (Neitzel 1994:215). My understanding of Chaco falls somewhere in the neighborhood of the last of these

three interpretations, but, in order to validate that assertion, an understanding of the Chacoan World must first be established.

Pico Chaco

Some archaeologists look at the Chacoan system and see a connected group of residence clusters that focus themselves around the local great house. The great house, under this construct, is not an elite residence but a communal ceremonial structure. Whatever level of political complexity the group has developed produced a small cadre of elites that operated virtually without authoritarian influence from the major towns in Chaco Canyon. Rather, through emulation, the architecture of the local great houses appears to be similar to the masonry styles and floor plans of the central great houses (Durand and Durand 2000:109). While they do not eschew the notion that Chaco held some ritual importance within the system, they tend to avoid the assertion that and group of central elites held decision-making power within the world system.

Grande Chaco

Other archaeologists, perhaps the majority of them, prefer the notion that Chaco was a system whose political power was largely centered in Chaco Canyon. The elites that wielded that power had decision-making rights that extended over a large portion of the system, if not the entire system itself (Lekson 1999:26). They point to the elite burials found at Pueblo Bonito, the sheer scale of the various construction projects throughout the system, and the clear architectural and engineering skill required to produce much of the built environment as good evidence for this complexity. Granted, teams of thirty

men working for only a month or two per year could have built the largest of the additions to Pueblo Bonito (Lekson 1984:64), but would not a specially trained individual have to have the knowledge to direct the construction of room blocks five layers deep and four tall? Would an egalitarian community have been likely to organize the shipment of 215,000 trees to the Canyon for use in great house construction? These seem improbable, particularly when added to the wealth of data that suggest Chaco experienced a level of wealth disproportionately large in comparison to the rest of the system.

Other factors, including the wealth of burials in Chaco Canyon, the possibility of institutional, class-reinforcing cannibalism (Turner 1993:421-439), and the greater variety and number of foreign trade items in Chaco Canyon indicate that the Anasazi who lived in that canyon had a significant amount of political and social power over the surrounding groups

The Emergence of a Regional System in the New Mexico Desert

There are many ways of looking at the growth of Chaco and the Anasazi, more than can be adequately dealt with in a hundred papers of this length. One way that allows for a quick understanding of Anasazi growth and the expansion of Chacoan power is, when used as a proxy, architecture. The database on Chacoan architecture is such that it can either be dealt with in the minutiae, or on a macroscopic level, focusing on the most easily differentiated attributes of the sites within the Anasazi-dominated parts of Arizona and New Mexico.

Site Stratification

Most architectural studies of Anasazi architecture are divided into three parts, large great houses, great houses (or towns), and villages. Large great houses (also spoken of as large towns), are found exclusively in Chaco Canyon, and number between 215 rooms at Penasco Blanco (Schelberg 1984:11) and the immense Pueblo Bonito, which had at least 695 (Schelberg 1984:16-17). There are only four sites that merit this category, three of which, Pueblo Bonito, Penasco Blanco, and Chechro Ketl, are in Chaco Canyon. The last, Aztec Ruin, lies to the north.

Great houses are found within Chaco canyon itself and in as many as 150 "outlier" communities throughout the region. These great houses range in size from over 100 rooms to a dozen or so (Schelberg 1984:14). They may have a plaza or great kiva associated with them and may be associated with a segment of one of the many roads built by the Anasazi to connect settlements.

The Anasazi village was predominated by what archaeologists have dubbed the "unit pueblo" (Schelberg 1984:14). These are irregularly planned assortments of single story rooms, usually five or six in number. A kiva is usually present as well. It is important to note that the term "kiva" has been de-ritualized in archaeological discussion, as the term itself references ethnographic kivas among the Hopi, which carried important spiritual significance. Many archaeologists (for example, Lekson 1999:24) see kivas as nothing more than an activity space that happens to be in a round shape because the people who

occupied them lived in round pithouses before beginning to build pueblos. The round activity area is, then, a survival from earlier times.

Growth of a System

In *The Chaco Anasazi*, one of Lynn Sebastian's foci of study is the point at which a culture group transitions from egalitarian to complex (Sebastian 1992). The study of Chacoan architecture, focusing on the early phases of development in the Canyon, reflects this change well. By studying the changing layout of the large great houses and the inception of outliers, we can plot them diachronically, and thereby watch the growth and proliferation of the Chacoan system.

The great houses in Chaco Canyon did not start off as large residences, home to elites who exerted the kind of power they probably enjoyed in the 12th and 13th centuries. The first building stages at future large great houses resulted in room blocks not much larger than some of the other pueblos in the area.

At the end of the Basketmaker III period, around AD 750, most inhabitants of the San Juan Basin lived a primarily mobile life, living in pithouses and cultivating only a few plants per year. The transition to a more sedentary way of life began somewhere around AD 850 (Neitzel 1994:219), resulting in a series of masonry pueblo construction events throughout the central New Mexico area. These were primarily agrarian sites that had yet to be brought together into a world system.

Though the area was inhabited by agriculturalists, the ease of farming was not uniform throughout the region. Chaco Canyon was a relatively poor

location agriculturally, one that could not support a large community. Rainfall there averages less than nine inches per year. When it does come, it usually does so in the form of desultory July storms that can do as much or more damage to a field than the preceding lack of precipitation. Indeed, the water control features found in the Anasazi area seem to be more focused on controlling the damage of the periodic superabundance of water than evenly distributing the little flowing water in the area. The growing season in the canyon is short, somewhere around 100 days between the final thaw and the first frost. Soils tend to have a rather high acid content, which can stunt plant growth, including corn (Sebastian 1992:9-12).

It would seem odd that such a massive system of large pueblos should arise in such an arid, inhospitable place. However, it may just be that the difficulty of growing crops produced the societal complexity that resulted in such large architectural projects. Faced with any sort of population growth, communalizing in order to share food resources would be an adaptive response to climatic hardship. Apparently, this is what was taking place in Chaco Canyon in the early 10th century.

Phase I (Early Pueblo II)

Archaeologists are fond of their phases. There is an overarching time schedule for the entire Southwest, the Pecos Classification, and there are many more site or culture-specific chronologies. Chaco is no exception. Lekson (1984), as well as others, divide Chacoan prehistory into 5 phases, others use 3. For the sake of continuity with one of the more straightforward interpretations of the development of

Chacoan architecture (Lekson 1984), a five-phase approach will be used here. Phase I, which lasted from AD 900 to 940, was the first period in which great house construction occurred in the valley. Pueblo Bonito, Una Vida, and Penasco Blanco were established as focal sites for three clusters of contemporary villages, probably with a view towards food redistribution as a hedge against drought, and also as places that offered good communication flow between the great houses and the emergent system of outliers.

These three pueblos are built at points in Chaco Wash that allow access to the land outside of the canyon. Pueblo Bonito is built across the canyon from South Gap, a break in the tall canyon walls, Penasco Blanco at the junction of the Escavada and Chaco Washes, and, finally, Una Vida is built at the point where Fajada Canyon merges with Chaco Canyon.

The system of outlier communities consisted of eighteen sites that have been identified as expressing Chacoan architectural styles appropriate to that time period. These sites are noted because they had great houses constructed with core and veneer style walls, were of similar floor plan, some had great kivas, and had 15 to 20 rooms in the great house (Neitzel 217). It is important to note that the term "outlier" does not apply just to the great house or the complex of larger buildings found at a given site, but applies rather to a clearly spatially bounded area wherein the settlements express certain architectural and functional attributes (Doyel et al. 1984:37). The outliers of Chaco, at this point in its history, seem to lump spatially into two groups. One group is within 50 miles of Chaco, the other is closer to 100 miles away. This

would support Doyel's "Chaco Halo" model, to which we will return later.

Between this phase and the next, which began in AD 1020, geographical expansion of the system seems to be minimal. Neitzel (1994:219) states that this is a period when most expansion was done within the pre-existing system, developing local networks and establishing new local villages rather than add territory to the system.

Phase II (Late Pueblo II)

Between 1020 and 1050, not only was Pueblo Bonito expanded in size to over 200 rooms, numerous other buildings were begun, including Pueblo Alto and Chechro Ketl. What is significant about these two new great houses is that they are not located in areas that command some resource beneficial to communalized agriculture. Chechro Ketl stands close to Pueblo Bonito, and, if the inhabitants were intending solely to organize labor, the competition between Pueblo Bonito and Chechro Ketl would have been disadvantageous. It would seem more likely that the construction of Chechro Ketl is indicative of multiple big men or women residing in different great houses, sharing political power in some way.

Pueblo Alto, on the other hand, while it is not even in the canyon, but on the escarpment that bounds Chaco Canyon on the north, is away from the other great houses. Lekson (1984:60) identifies both it and Chechro Ketl as elite residences. If this is true, it would indicate that social structure has gone from an orientation towards providing food for the community towards a system with an established hierarchy that has the power to plan, if not coerce the

labor to build great houses, is controlling the flow of goods into and out of Chaco, and supports several groups of elites.

The suggestion has been made that the political power of the valley was not concentrated in the hands of a single elite or elite lineage. If one person wielded power, one would guess that architectural work would be focused on the primary residence of the elite. The fact that Chechro Ketl was begun while Pueblo Bonito was being expanded and Una Vida, Penasco Blanco, and Pueblo Alto were occupied or being built suggests that there were numerous powerful groups in the valley, perhaps each stemming from the earlier period where the three great houses seemed to dominate individual minisystems.

Outlier construction at this time greatly expanded the number of great houses within the previous bounds of the system, though the expansion of the system itself was relatively small (Neitzel 1994:220). The number of outliers within the system increased threefold, however, indicating that a much larger population came under Chacoan influence during this time.

Phase III (Early Pueblo III)

The next major period of construction at Chaco occurred between 1050 and 1075. Most of this work seems to have been focused on expansion of the current great houses, though Pueblo del Arroyo, situated near Pueblo Bonito and Chechro Ketl, was begun. What is important to note, however, is that the increase in living space far outpaces the estimated 3% per year population increase (Lekson 1984). Provided that the rooms identified as residences were occupied at this time, it appears that

people were moving to Chaco Canyon, as birth rate alone is insufficient to fill the increase in population estimates.

Phase IV (Early Pueblo III)

The busiest construction phase at Chaco was between 1075 and 1115. Pueblo Bonito, Penasco Blanco, and Pueblo del Arroyo were greatly increased in size, and Wiji, at the eastern end of the Canyon, had begun. Much of the expansion work resulted in large amounts of storage space. It would appear that the great houses were assuming a much more important economic role within the Anasazi world than they had heretofore (Lekson 1984:66).

Again, outlier construction was focused primarily within the bounds of the Chaco system, though those boundaries did move outwards during this time (Neitzel 1994:219). By now, outliers could be found as far north as the southern boundary of the Rocky Mountains, as far south as the Mogollon Rim, as far west as the Anasazi culture spread, and as far east as the Puerco River. One interesting trend worth mentioning is that great houses tended to become larger at greater distance from Chaco. Lekson interprets this as evidence of the ceremonial importance of Chaco, as people closer to the Canyon would be more likely to attend ceremonial functions there, whereas those at great distance would go to one of the several large great houses, which could perform the same ceremonial function but be nearer at hand.

This is also the first period when archaeologists are sure road construction was under way (Powers et al. 1983:253). These thoroughfares are one of the most

persuasive bits of evidence for social complexity among the Anasazi. These roads, usually around 9 meters wide, connected outlying communities with each other and with Chaco itself. They ran for hundreds of miles, over mountains (not around them), and seemed to be built for both economic and ritual purposes. In order for these roads to be constructed over such a great distance and as straight as they often were, bespeaks a knowledge of surveying techniques and labor organization that would be improbable in an egalitarian community.

The McElmo Phase

The final phase of great house construction was the so-called McElmo Phase, between 1115 and 1140. Some say that McElmo Phase sites are evidence of intrusion from the San Juan area to the north, noting the change to more compact floor plans and the use of larger, blockier stone instead of the slab sandstone used prior to this. Lekson and others disagree with the concept of San Juan influence, offering instead that the changes in style were the result of the exhaustion of building stone resources in the canyon itself. By building more rectangular floor plans, the number of walls that had to be constructed to make rooms was significantly decreased, and a shift in building stone type and style exploited other local rock types. Kin Kletso is an example of a site of McElmo construction.

Whatever the cause, the McElmo Phase, many assert, was the beginning of the end of Chaco (Judge 1983). The entire valley was deserted by the dawn of the 13th century, and the number of great houses displaying Chaco-like characteristics declined dramatically

both during this phase and after it. Lekson's *Chaco Meridian* asserts that the locus of power shifted north to Aztec, then south to Paquime. The likelihood that this happened is somewhat in question, but the basic point is that it was no longer at Chaco. By 1300, only five communities within the canyon have been documented as still inhabited (Powers et al. 1983:258). This same process rippled throughout the Southwest in the following century, as lands and villages that had been occupied for several centuries were abandoned. By the mid-1300's, much of the Four Corners area, which included many sites occupied by the Anasazi, was virtually depopulated, with peoples of different groups moving throughout the area, eventually forming a mixture of cultures that gave rise to the Hopi.

Theoretical Background

Attempts to model the structure of community interactions did not begin with World Systems Theory (WST). Before focusing on the neo-Marxist underpinnings of WST, let us first look at the use of two alternative theories, Graph Theory and Central-Place Theory.

Graph Theory essentially uses a map and a compass to try and link sites according to distance. If an archaeologist has an algorithm for how far a person could walk in a day, a week, or a year, she can, on a map, plot a circle around a site that illustrates how many other communities the site could interact with on different levels. By showing overlap within these areas, a general idea for interconnectedness of sites may develop. Wilcox (1996) provides us with a map that shows how different communities within the Southwest may have

interacted based upon the ability to communicate.

There are two fundamental problems with this approach. First, the Southwest is not a nice, even, level surface. A circle is not an appropriate shape to describe all the area around a site that may be accessed through a walk of a given amount of time. This problem may currently be rectified, however, by the use of advances Geographic Information System software such as the ArcGIS suite. These programs may be used to draw a shape over uneven terrain that much more faithfully represents the actual distance from a site that could be covered.

A second objection, one that is not so easily overcome, is that Graph Theory doesn't delve into actual site hierarchy structuring very well, and does not work well with economic, political, and cultural considerations. It's most reliable results are demonstrations of potential interconnectedness, which are not as useful to describing the totality of interactions between peoples.

Another theory, Central-Place Theory, is similarly tied to geography. Central place theory does a better job than Graph Theory as far as handling system-wide site structuring. Central Place Theory assumes that the largest order of sites within a ranked site size hierarchy will be distributed fairly evenly around the territory of a given group. Around these sites will cluster a number of second order sites, each of which has a halo of third order satellite communities. Goods flow between sites of similar size rank within their own nodes, and then are dispersed to lower levels (Wilcox 1996).

Central-Place Theory answers many of the economic, political, and structural questions that Graph Theory

does not address so well. However, the applicability to the Southwest is somewhat problematical, as, once again, the Southwest, the area dominated by the Anasazi in particular, is not flat. Central Place Theory was developed to explain site dispersal in southern Germany, which has comparatively little relief. The model, therefore, should and does work well there. In places that offer more significant topographical considerations to site placement, another theoretical approach would be more appropriate. In this case, World Systems Theory offers a better alternative.

The year 1974 witnessed the publication of the seminal work within the World Systems canon, Immanuel Wallerstein's *The Modern World System*. This work, an outgrowth of neo-Marxist thought, expounded a number of concepts that were fundamentally different from the way sociological study was done heretofore. Perhaps the most revolutionary was the use of the "World-System" as the fundamental unit of analysis. The world system has been defined as the area within which the people share some division of labor that allows them to regularly reproduce the system and themselves (Wallerstein 2000a:139). Within this region, people and areas are divided first into the core and periphery, with the semiperiphery emerging as an intermediate, almost a buffer, that mediates the flow of goods, both material and ideological, between the two (Wallerstein 2000b:89). Though the semiperiphery is not an essential part of the system, it does greatly assist in the smooth running of it.

The development of world systems, according to Wallerstein, began small, naturally enough. The first systems to appear were minisystems, systems that shared the same cultural

affiliation. As the system expands, however, more cultures become part of it, creating a world system, either a world empire, wherein the cultures are united under one political aegis, or a world economy, where they are not (Wallerstein 2000b:75). World empires, according to Wallerstein, emerge first, as economies are generally unstable at inception, and, provided they do not disintegrate, are more easily created in a world empire, which unites power long enough for the various cultures to develop their economies to make the world economy viable after that single political power disintegrates (Wallerstein 2000b:75).

Perhaps one of the greatest blessings of WST is that it is the first theory that deals with a wide range of complex subjects that also holds the potential for cross-discipline research. Using this theory has allowed sociologists, anthropologists, geographers, and historians to speak to each other using the same language, helping to deconstruct the divisive, arguably unnecessary barriers between different academic departments.

World Systems Theory in the American Southwest

Though Chaco seems like the best candidate or a World Systems-based analysis the prehistoric Southwest may offer, surprisingly little research has been done in this direction. A few authors have made some inroads using neo-Marxist models, however, and these must be mentioned.

Steadman Upham's 1982 *Politics and Power* is an attempt to reconstruct post-Contact Hopi social organization in an explicitly World Systems framework.

The Hopi, who are a derivative group of the Anasazi and other cultures in the region, were one of the groups contacted and subjugated by the Spanish in their conquest of the area.

Politics and Power uses WST in form, but not in terminology, as several other adaptations of WST to pre and non-capitalist situations have done. It takes issue with Wallerstein's definition of culture, form and functions of trade, and a number of other criticisms often lodged against doctrinal WST.

Upham's work is one of the best examples of WST-related scholarship in the Southwest, but there are certain hurdles to adapting his model to Chaco. First, the data sources are different. For Upham, working with a proto-historic setting, there is some written record pertinent to his topic that gives the opportunity to see some approximation of a contemporary viewpoint and interpretation of events. For Chaco, however, where all we have to go on is archaeological data, the surety with which a WST-based model may be attempted is much less.

Secondly, and much more importantly, modern Hopi political organization is much more similar to Hopi organization at contact than Anasazi organization during the period of Chacoan florescence. Chaco exhibited a higher level of social stratification and complexity than do modern Hopi peoples, meaning that a model built from ethnographic analogy, as many have been and are, miss the mark. Understanding Chacoan sociopolitical organization requires models that look to other sources for analogy, if not a completely novel understanding.

A discussion of Chaco that comes tantalizingly close to a World

Systems viewpoint without acknowledging it is Steven Lekson's *Chaco Meridian*. Lekson's model talks about peripheral sites, "outliers," and their relationships to centers (instead of "cores") at Chaco, Aztec, and Casas Grandes. While not overtly World Systems oriented, Lekson's model offers several helpful insights which will serve well a WST model, and will be dealt with later.

Several World Systemic models have been offered that focus to some extent directly on Chaco itself. Gledhill (1978) and McGuire (1986) both interpret Chaco as expressing a prestige-goods economy that reflects competition among ranked lineages of elites living the large pueblos in Chaco Canyon. While they make good points, the fundamental problem with their prestige-goods economy is that they focus too heavily on the function of preciosities, ignoring the important social power of trading in bulk goods. Under the terms of the social contract, the elites remain in power because they see to it that the commoners are supplied with basic wants, including foodstuffs. In order for a prestige-goods model to work, it must be accompanied with adequate exchange of foods to keep the populace backing the elites. Esoteric knowledge and exclusive access to a single suite of goods are not enough to maintain a social structure.

Dean Saitta looks at Chaco with a neo-Marxist angle, too. In his 1997 article in *American Antiquity*, he gives a good synopsis of different theories relating to Chacoan political organization, and offers his own model, which is primarily a prestige-goods model. His is more palatable, however, because it gives agency to the vernacular. Whereas Gledhill and

McGuire focus so heavily on the role of elites within the society as to make the commoner appear as but a cog in the machine, Saitta looks at prestige goods as the result of service to the community. A prestige good is conceptualized here as a reward earned by the elite by satisfying the wants of the populace, and is not entitled to it regardless of his effectiveness (Saitta 1997:19).

One final work that needs to be mentioned is that of Pailes and Whitecotton (1986). Their work brought World Systems to the old Southwestern debate over the origin of the social complexity witnessed at Chaco. They employed WST to back the now rather unpopular assertion that groups of long-range traders from Mesoamerica, known as *Pochtecas*, settled in Chaco and founded the hierarchical society reflected in the construction of large great houses. To enter fully into this debate would tax the reader's attention beyond polite boundaries, so this work is only mentioned here as an illustration of the range of application WST has experienced within Chacoan-themed debates.

These are some of the explicitly WST-based works that have been published on the subject of Chaco to date to date. Using them as a basis for understanding will make applying a WST-based model to questions of Chacoan emergence and systemic nesting much simpler.

The Chacoan World

Thus far, a brief synopsis of changes in Chacoan building styles, both within and without the canyon, has been offered along with a brief background in World Systems and its various previous

applications to the Chaco Anasazi. It is now time to address the issue of Chacoan site structure from a World Systems viewpoint. The study of Anasazi architecture indicates that the Chacoan system consisted of a core and a nested set of peripheries.

A core with nested peripheries expresses several different understandings of "coreness" all at once. A core may interact differently with its immediate group of satellite sites than it does with farther flung peripheries. Also, the major center and surrounding villages can be considered a core in relation to other sites within the system, and interact with them differently.

The Local Pattern: Chaco and Its Halo

The spatially smallest application of a world systems model is within the Chaco Halo, introduced by David Doyel, Cory Breternitz, and Michael Marshall (1984). Doyel et al. focus on the importance of the proximity to Chaco and the effect it had on community organization. They note that where there is a great house, it is usually rather small, and, in many cases, there is none, though the sites that lack great houses seem to be near or astride one of the many roads that runs into Chaco canyon. These sites were likely the homes of the agriculturalists and laborers who built Chaco and supplied it with enough food to keep it running (Doyel et al. 1984:49). These communities date to the mid to late Bonito Phase, 1020-1220, and are likely indicative of the growth of population in Chaco Canyon and the resultant need to feed them. The power of Chaco within this halo was redistributive and complex.

In World Systems terminology, the great houses within the canyon were

the core area that dominated the peripheral Halo sites. Provided Doyel et al.'s work at Bis Sa'ani correctly illustrates the relationship between that community and Chaco, then the peripheral sites were sending food to the core for redistribution. Their labor was being used to feed the elite populations. The flow of goods from the core to the periphery was either through food redistribution in times of want, or through ritual means.

As was noted above, the relative dearth of highly formalized, large outlier great houses within this Halo, which extends approximately 35 kilometers away from Chaco in a roughly circular layout, indicates a political domination of the periphery by the core. The functions of the great house, as either the home of some form of legislative elite or as a communal ritual center, were tied up in the canyon itself, and effectively bound the near outlying communities to it. I should note here that in all fairness, this is not necessarily such a harsh thing. By saying the core established this relationship robs the periphery of agency, which may well be unfair. The periphery, once included in the core's system, could have been part of a ceremonial or religious system that prized the great houses in Chaco Canyon for some great spiritual significance. If this were the case, the periphery would have the benefit of visiting these spiritual sites directly, instead of being bound to a great house at a distant outlier. An analogy to this might be the difference between hearing a mass performed by the Pope in Rome versus hearing it from a local curate. While the rites may be virtually the same, the experience of the former is much more dramatic and exhilarating because of the

importance of the Vatican and the Pontiff.

Whatever the nature of the ties between Chaco and the surrounding ring of sites were, the outliers were tightly bound to the fortunes and decisions of the inhabitants of the great houses, among whom Pueblo Bonito seems to have come to supremacy.

The Regional Pattern: Chaco and Its Outliers

Past a certain distance, the redistributive processes that Chaco maintained within the Halo become uneconomical. The cost in food consumed to carry a load of sustenance to Chaco becomes greater than the value of the vittles carted in. Past that point, the nature of relations between Chaco and outlying great houses changes dramatically.

Assuming that outlying great houses are the product of the spread of Chacoan power and not local developments undertaken through competitive emulation, the elites in Chaco would have maintained a certain level of power over the lesser elites residing at the outlying great houses. As the distance from Chaco increases, however, and the lines of communication stretch, the importance of the local elite and the amount of power that he or she may wield should grow. Perhaps this is reflected in the increase in size of great houses as distances from the core increase.

This is not to say that the elites in Chaco lacked the ability to reinforce and exert power over those at great distances. Within the archaeology of the prehistoric Southwest, there is a growing body of literature that suggests there might have been some form of annual festival in Chaco that integrated peoples

from throughout the Anasazi world. Large deposits of intentionally broken pottery at places like Pueblo Alto and just outside of Pueblo Bonito could be the remnants of some sort of ritual that involved offering food or "killing" pottery as a sacrifice. Also, the road segments built by the Anasazi throughout the Chacoan World become noticeably wider as they near Chaco. If part of the importance of roads was the movement of people towards the Canyon for an annual festival, the increase in traffic as one neared the canyon would make a widening of the roads a desirable development. This is at this point conjecture, as there does not appear to be a supporting body of fieldwork to verify this last claim.

The Macro-Regional Pattern: Chaco and the Wider World

The final stage of this nested system considers the Anasazi, as a group, as a core that consumed goods from the neighboring peoples and was involved in regularized trade with groups as far away as Mesoamerica.

Many of the power issues inherent to World Systems Theory break down in an attempt to accurately describe these relations. Perhaps a better would be interregional interaction, along the lines of the model suggested by Stein (1999) as an alternative to doctrinaire WST. It has been demonstrated that goods flowed from the Anasazi out to the neighboring polities, and from those groups back. These interactions linked Chaco to the states of Mexico, and brought macaws, copper bells, and, some argue, T-shaped doorways to the Southwest. Shells, ceramics, and a number of other items came from the

closer peoples, the Mogollon, Hohokam, and Sinagua.

Anasazi interactions with the Sinagua might be a fruitful area of research for future scholars in that the site of Wupatki expresses both Sinaguan and Anasazi architectural and artifactual traits. Parts of Wupatki appear to be Chacoan style core and veneer masonry, enough so that Lekson (1999) includes Wupatki in his list of outliers. Looking from the other end Wilcox (1996:247) and a number of others think that while Wupatki might not have been an outlier, it could have been a gateway site that allowed for fairly open trade between the Anasazi and Sinagua. A closer study of Chacoan border dynamics might be fruitful.

That aside, it has been documented that the trade with other regions was not one-dimensional. Perhaps the most thoroughly researched and frequently encountered export from the Anasazi was turquoise, which permeated the Southwest and reached Mesoamerica. One of the first identifiable outliers to the Chacoan system is Guadalupe Ruin, situated at some distance on the Rio Puerco. The early inclusion of this site in the system may represent an early move by the Chacoan elite to gain control over turquoise production in the area, as Guadalupe sits near several productive turquoise mines, located in the vicinity of Mount Taylor (Judge 1989:232). Perhaps turquoise was used in some form of a prestige-goods exchange system between the elites at Chaco and their neighboring peoples.

This model deals with Chaco primarily in a single slice of time near its peak in the early 1100's. My hypothesis was that the system would start small and expand to encompass new peoples

and areas. Following Neitzel's model, such does not appear to be the case, as the actual extent of Chacoan power doesn't seem to move outwards much after Phase I of construction, as several of the most distant outliers are incorporated into the system between 900 and 940. While there is some extension, the primary vehicle of Chacoan complexity development seems to be through intensification, not expansion. I found this a bit curious, but could not find evidence that would refute this on a general level. In view of this, and the fact that a complete reconstruction of a diachronic model would absorb several papers of such length, the model presented here deals primarily with the system at the transition between the fifth major construction phase and the McElmo Phase, the period of Chaco's greatest power and substance.

Conclusion

The rich history of Chaco both as the home to a dynamic, complex culture and as a research topic for historians, ethnographers, and archaeologists makes the application of new interpretive models particularly fruitful in comparison to the rest of the Southwest. The architecture of the great houses, villages, and roads within the canyon and in outlying settlements reflects, to a certain extent, the power relations that shaped this culture.

Obviously, there are many things that architecture will not tell us. The various processes of social replication are inscrutable through an architectural lens, as are shifts in dietary preferences or kinship systems. This project used the architectural developments and

alterations made to Anasazi sites in Arizona and New Mexico to offer a very cursory model of Anasazi community organization based on World Systems Theory.

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