

The “vertical archipelago” model of Andean economics and settlement

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- Announcements

- The vertical archipelago model
 - First formally proposed by John Murra in 1967, laid out more fully in 1972
 - based on ethnohistorical documents, that is, shortly before and after Spanish conquest
 - but he suggested that it might be a very old, ingrained pattern of Andean behavior
 - Murra called on archaeologists to test how much further back it might have applied
 - and it did inspire a lot of archaeological research
 - describes a specific pattern of
 - the location of settlements across the ecologically varied landscape
 - and their economic and social relationships to each other
 - originally claimed to be uniquely Andean
 - part of the search for “que es lo Andino” (“What is the Andean?”)
 - others see it as just a variant on practices known in many parts of the world
 - initially adopted by many people, especially in Latin America, almost uncritically as a near-universal, explanatory model
 - very influential on archaeological research for decades
 - we have read it in Murra's original words both to give you the model straight from the horse's mouth, and as an example of what ethnohistorical arguments can be like
 - the model is now accepted by most people as one common way that some Andean people organized their economies and settlements
 - but not one that applied everywhere or at all times
 - nor that explains everything, even when it does apply
 - manifested in highly variable ways
 - instead, one of many useful conceptual tools to consider when trying to understand some aspects of some Andean phenomena
 - But Mary Van Buren, who wrote one of our readings for today, would probably not even give it that much credit

- The model: Murra 1972 (or 1975)
 - the Andean environment is highly variable on a short-distance scale
 - the main controlling factor is elevation
 - so the landscape can be envisioned as a series of steps or tiers (“pisos ecologicos” are literally "ecological floors") with different resources available in each
 - and because of the steepness of the Andes, these tiers are relatively close together
 - unlike less abrupt territories, where there might be a vast expanses of one ecological zone to cross before you could get to a different one
 - One way to handle this steep environment is for a group based in one tier to set up satellite villages in several other tiers

- All the villages remain in close contact, family members move back and forth, and all consider themselves members of the same group
- Since they are members of a single community, they exchange the products of each tier with each other, so all have access to a full range of crops, meat, wool, fish, etc.
 - this is often within a single family
 - for example, a family in a high elevation potato growing zone might send grandma off to tend the coca field two days' walk away, and a brother up into the puna to pasture their herd
 - Murra does not emphasize this within-family aspect, although many of his quoted sources clearly imply it
 - he looks on the arrangement as more of a shared, community strategy
 - Mary Van Buren explains why he does that in intellectual history terms
- the result is that single groups have multiple settlements scattered around at various elevations: an “archipelago” of little villages
 - with lots of unutilized space in between them
 - “asentamiento salpicado” = “scattered settlement”
 - this contrasts to the traditional concept of a territory that is one contiguous region that can have a boundary drawn around it
- another result is that multiple groups might set up peripheral settlements in the same general area
 - several highland groups might have maize fields in the same coastal valley
 - in effect, the “archipelagos” or “scattered settlement patterns” of different groups can cross and overlap
 - producing “multiethnic settlement” in some areas
 - that is, multiple different groups living close to each other in the same area
 - relations in such a situation might range from harmonious to hostile
 - depending on how much competition there is for the land, water, etc. in that ecological tier
 - or on personal, political, or ethnic affairs
- Critique: this is nothing surprising or special
 - similar multi-level settlement patterns have developed in other steep, mountainous regions
 - Himalayas
 - “high” (volcanic) Polynesian islands in precontact times were divided into pie-segment territories, intentionally designed to give each group access to the full range of ecological zones from the shore to the mountain peak
 - many societies view exchange as embedded in group membership, kin relationship, etc.
 - so, Murra's model of exchange as being a system of supplying needs within a single group fits equally well as a way of describing many other economic systems that are commonly described as “trade” or “exchange”
 - or, conversely, the relationships between the settlements in an “archipelago” could be seen as ordinary trade relationships strongly embedded in descent group membership
- the multiethnic settlement aspect is one of the more interesting features

- this may not be so common worldwide, at least in the form seen in the Andes
- in which each group maintains independent settlements that have little or nothing to do with the neighboring settlements of other groups
- this pattern of multiethnicity with minimal interaction does seem to turn up in the Andean archaeological record
- Murra’s case 1, the Chupaychu and Yacha of the upper Marañón and Huallaga valleys
 - inquiries in low-elevation coca fields on the eastern slopes of the Andes found several people there who were from highland towns
 - some had already been counted in the visita (census) in the highlands
 - they were permanently associated with their coca plots, and people from their highland villages replaced them if they left or died
 - they were called *coca camayoc*, quechua for “people responsible for the coca”, or “coca specialists”
 - every division of the Chupaychu and Yacha had a few *coca camayoc* in the area
 - similar arrangements put people in the puna to pasture herds, and in Yanacachi to dig salt (for animals to lick)
 - note that while Murra calls the people in peripheral settlements “permanent”
 - most of them have houses in the highland agricultural towns
 - and were in the highland village often enough that some were counted by the census-takers there.
 - so some, at least, move back and forth frequently
 - while others really do sound relatively permanently stuck in their peripheral settlement
 - also note that some of these distant people take care not only of their own family’s fields, but of many fields for “all” the members of a community
 - this suggests a community (residential, political unit) level of organization
 - of course, community and kinship may be almost identical in practice
 - what does that horrible diagram of the Chupaychu mean?
 - My best interpretation is that the line is supposed to be the slope of the Andes
 - The “highland core” is located midway along the slope
 - it is around 3000-3200 m elevation
 - resources: farming tubers and maize
 - monoethnic settlement
 - main population and power center
 - the Puna is located 3 days’ walk above the highland core
 - 4000 m elevation
 - resources: herding camelids, salt
 - multiethnic settlement (shared with other groups)
 - the Montaña is located 3-4 days’ walk down from the highland core
 - no elevation shown, but it would be roughly 1500 m
 - resources: farming cotton, peppers, coca, gathering wood
 - multiethnic settlement (shared with other groups)
- Murra suggests that there may be additional tiers not yet documented, and gives a more specific list

- 1. the highland core, with the settlement located between the lower maize fields and the higher tuber fields, within a day's walk of each
- 2. salt licks in the puna
- 3. pastures in the puna
- 4. cotton and pepper fields below the maize fields
 - unlike the others, these were tended by widows
- 5. coca fields in the ceja de selva
- 6. forests, for honey, wood, etc.
 - may have been conceived of as the same tier as the coca fields
- Murra's summary of his first case: Chupaychu
 - 1. small system: 500-3,000 people total
 - 2. highland core between the maize and tuber elevations, below 3,200 m elevation
 - 3. permanent peripheral settlements above and below the core (hence called "verticality")
 - all within 3-4 days' walk of the core
 - small peripheral settlements, sometimes only 3-4 houses
 - inhabitants have houses and membership in the core community
 - peripheral areas were multiethnic - other groups also had outposts in them
- Murra's case II: altiplano kingdoms
 - Lupaqa, especially are well known because rather than being given "in encomienda" (like property attached to a land grant) to an individual, they were given directly to the crown of Spain
 - which demanded a lot of detailed reports that we still have
 - by the way, notice this Spanish method of "encomienda"- entire populations of indigenous people were simply given to Spaniards and occasionally swapped like herds of cattle
 - colonies both down towards the Pacific (Moquegua, Tacna, Arica) and into the jungle on the eastern slopes
 - Murra's summary of the second case: altiplano kingdoms, especially the Lupaqa (compared to Chupaychu case)
 - 1. much larger system: 100,000 people or more
 - 2. core located in the altiplano, around 4,000 m above sea level
 - core is zone of tuber cultivation and preservation (i.e. chuño freeze-dried potatoes)
 - and lots of pasture for large herds
 - 3. permanent peripheral settlements
 - some further away, 10 or more days' walk
 - some larger, up to hundreds of houses
 - inhabitants still considered themselves to be from the core
 - peripheral regions were multiethnic (other groups also settled there)
 - another type of colony is added: craft colonies ("artisans' islands"), as in villages of people who specialized in pottery or metalworking
- Murra argues that this pattern of "verticality" is very ancient
 - first, he just says he suspects that verticality is very old

- then he points out that it survived into colonial times despite active attempts to disrupt it, so it must not be so fragile
 - implying that it could have arisen without the support of a state, and thus, before states came to be
- even if the logic is correct, this would not prove that verticality *did* arise before the Inka state, only that it could have.

- He goes on to discuss how the verticality concept was used by the Inka
 - ecological verticality continues
 - supplemented by "functional" verticality, in which the same term (*mitimaes*) is used for ecological colonists and groups of people sent to certain locations for non-ecological purposes, like craft work or guarding a frontier
 - interesting detail that in one case in Huanuco, the *mitimaes* who were sent there to man "fortresses" were granted access to a local vertical archipelago of fields, so that they could be self-sufficient
 - an archipelago within an archipelago...
 - also, the "rights in the core" aspect may have been diluted or reduced to a legalistic formality, since the *mitimaes* were sent to places that were months away from the core
 - if the strong relationship of the colonists with the core can be lost without altering the system, is it really much different from interregional exchange or other non-"Andean" economic strategies?

- Murra 1985 extract: a concise restatement of the model
 - 1. each ethnic group tries to control a maximum of ecological tiers
 - 2. the bulk of the population was on the altiplano, with permanent colonies forming an archipelago of "islands" physically separated from the core. They maintained constant social and trade contact
 - this is not commerce (he doesn't specify precisely why, except that commerce is a "model from other latitudes"), nor transhumance
 - 3. instead, the relations were those of reciprocity and redistribution. All members had rights to products of all zones, based on kinship ties that were reaffirmed through ceremonial activities in the core. All were members of the same group.
 - 4. distant regions were occupied by colonists from multiple altiplano core groups: multiethnic settlement.
 - not always peaceful
 - [what about people who weren't part of the altiplano-based system, i.e. indigenous locals?]
 - 5. Two changes occur as the system grows large, especially under the Inka
 - 5a. colonies grow more distant, and as a result, the colonists' rights in the core became difficult to exercise. Exploitation of the colonists by the core creeps in.
 - 5b. additional, non-ecological types of colonies are added, such as potting, metalworking, and military colonies

- Mary Van Buren 1996: Questioning the model on its home turf, the supposed Lupaqa colony in Moquegua

- she find archaeological evidence that there was a Lupaqa colony in Moquegua in early Spanish colonial times
 - and maybe in Inka times
 - but no evidence any earlier
- she then looks at written documents again, and suggests that the colony -- and maybe verticality in general -- was a specific strategy responding to the conditions of the time, not an ancient, enduring way of life
- She gives some very enlightening intellectual history of the model
 - but if you don't recognize all the names and concepts, don't sweat it
- Chip Stanish looked for pre-Inka Lupaqa colonies in the Otoro valley
 - but didn't find any evidence of Lupaqa people until Inka times
 - some possible hints of Qolla people, a neighboring altiplano group
- Mary Van Buren and others looked at the best candidate for a Lupaqa colony, in the Moquegua valley: Torata Alta
 - the site plan is either Inka or Spanish
 - in either case, a product of a larger state, not reflecting ethnic identity
 - the fancy ceramics are largely Chucuito-Inka
 - a style produced and partially distributed by the Inka state
 - in the altiplano, this Inka variant is found primarily within Lupaqa territory
 - but since it was made and distributed by the Inka state, its presence at Torata Alta does not necessarily mean that the people there were Lupaqa
 - it could have just been the most convenient Inka pottery to send to whoever was there
 - or it could have been locally made by Lupaqa people who made pottery in the style of their altiplano homeland
 - spindle whorls and plain pottery would not have been controlled by the Inka
 - the ones at Torata Alta are of Altiplano type
 - but they are the same for Lupaqa, Pacajes, etc. groups, so they don't tell us from what part of the altiplano the colonists came (or got their spindle whorls)
 - some camelid mandible tools have the same problem
 - conclusion: altiplano, maybe Lupaqa, colonists were present at Torata Alta in Spanish colonial, and maybe Inka, times
 - but no evidence of earlier occupation
 - [actually, only Stanish was really properly looking for earlier occupation, and that only in a tiny, remote bit of the valley]
 - [so this is pushing the evidence a bit, even if it is probably right]
- She reinterprets the ethnohistorical documents
 - most coastal fields were owned by elites and were worked by commoners in some sort of service relationship
 - the workers had been given to the altiplano elites by the Inka
 - commoners went down to the coast to exchange goods (trade)
 - both commoners and elites were providing for their own household needs, not the community in general
 - in the elites' case, these needs included
 - tribute demands imposed on them because they were leaders

- and supplies they had to provide to workers on their altiplano fields
- so the colonies were run for the benefit of the elites, in order to satisfy their political obligations, not to meet subsistence needs of the whole group
- if the colonies were relatively new institutions, mostly benefiting a few leaders, why did they persist in the face of Spanish meddling?
 - Murra says it is because they were basic, ingrained features of Andean life. Could there be some other reason?
 - Van Buren says yes:
 - it was in the interest of both the chiefs and the colonists for the colonists to continue in that role
 - the colonists got to avoid being sent to the Potosí silver mines, a murderous forced labor duty
 - because they were under the authority of the Lupaqa, but lived so far from the Lupaqa rulers that forcing them to go was difficult
 - and besides, the colonists provided maize that the Lupaqa leaders needed to meet their tribute and other obligations, so the leaders also had an incentive to keep them functioning as colonists
 - so while the Lupaqa leaders lost control of their other labor sources, the colonists were glad to stay on and insist to the Spanish that they had no choice, because it saved them from an even worse duty
- Van Buren's conclusions
 - the Lupaqa colony was not a way for the altiplano community to get needed resources
 - instead, it served the specific need of Lupaqa leaders for tribute
 - and later, when the colonists might have wanted to escape this, it also served the colonists themselves by saving them from being sent to Potosí
 - vertical archipelagos probably never supported communities through redistribution, but rather always supported specific political leaders
 - Van Buren just asserts this, but gives a few possible kinds of support
 - we should consider the amount that the colonies could produce and how much was actually shipped up to the core
 - would it have been significant to the nutrition of the whole core population?
 - [well, maybe yes if the crops were lightweight and consumed in small quantities, like ají peppers or coca]
 - [also, maybe yes if it was highly valued, maybe of ritual importance, as certain varieties of maize might have been - by analogy to the way we ship prized wines around the world]
 - instead, ordinary exchange was probably important for individual families
 - she warns us not to overemphasize a static view of Andean society, but to consider how Andean people have changed their strategies to fit changing circumstances
- My parting shot
 - despite what Van Buren says about this case, there are increasingly convincing archaeological examples of intrusive, multiethnic settlement in coastal valleys
 - as we will see with Tiwanaku and Wari in Moquegua

- and with my work in the coastal Osmore valley
- these may not be identical to what Murra describes, but they share some interesting features with it.
- to me, one of the most fascinating aspects of the model is this multiethnic nature of settlement
 - the model does not really explain why this should often apparently prove a workable arrangement
 - even though we might imagine that competition would make it impossible for small outposts of different groups to get along
 - but it clearly happened in early historic times and archaeologically
- I agree with Van Buren that we need to look at specific motivations of individuals or sub-groups
 - rather than treating verticality as an ingrained aspect of Andean behavior, we should see the separate aspects of it as concepts that might have been applied when they served some individuals' needs
 - so multiethnic settlement, for example, apparently came about repeatedly, in multiple places, but typically lasted only for a finite period
 - it served some need, then ceased to do so or began to have greater costs than benefits
 - the problem is to figure out what the needs, costs, benefits, and strategies were for each case
 - then we will be starting to understand a bit of prehistory...

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