

# Trade patterns in the Central Highlands of Peru in the first millennium B.C.

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In reconstructing the development of the pristine state in Peru, a number of basic assumptions have been made. After consideration of the economic interactions of the Jauja-Huancayo polity in the Central Andes during the first millennium B.C., I would propose modifying two of these assumptions. In simple terms, the two are, first, that with the advent of a suitable number and range of domesticated plant species, the Peruvian populace inexorably adopted patterns of settled agricultural village life; and second, that the Chavin religious cult (here used synonymously with the pristine Peruvian state) extended throughout Peru, following its first major expansion of approximately 1200–1000 B.C. (uncorrected radiocarbon years).

In many areas of Peru, agriculture did begin to play an increasingly important role between 3000 and 1500 B.C., with greater quantities and varieties of domestic plants being exploited, and with a general increase in the tempo of cultural change (MacNeish and others 1970; Moseley 1972; Patterson 1971a). Since food production required inhabitants to spend more time each year in one place than they had previously, permanent settlements eventually emerged in many areas. In return for a dependable food supply, the early Peruvian agriculturalist sacrificed mobility and variety of diet; he traded his role as a generalist in the acquisition or production of food, for that of a specialist. To provide the power and the complex technology (such as elaborate irrigation works that involve skilful engineering, or agricultural terracing that requires careful construction and yearly upkeep), the agricultural society needed a much more sophisticated political structure than was previously required.

It is proposed that one measure of increasing sedentism should be increasing trade. The sedentary agricultural communities would no longer have direct access to certain resources utilized under their previous more nomadic hunting and gathering regime. Trade is a major mechanism by which former ecological zones could still be exploited by increasingly sedentary agriculturalists. Economic dependence on trade and the redistribution of food would encourage a more sophisticated political system, which could provide stability for economic growth and mobilize the populace for the successful exploitation of resources within the trade complex. The location of such developing political centres and their spheres of influence should help us to understand the development of the pristine state.

Twelve months of fieldwork in the Peruvian Andes by this writer provide the data against which our basic assumptions are compared. The locus of research was the Jauja-

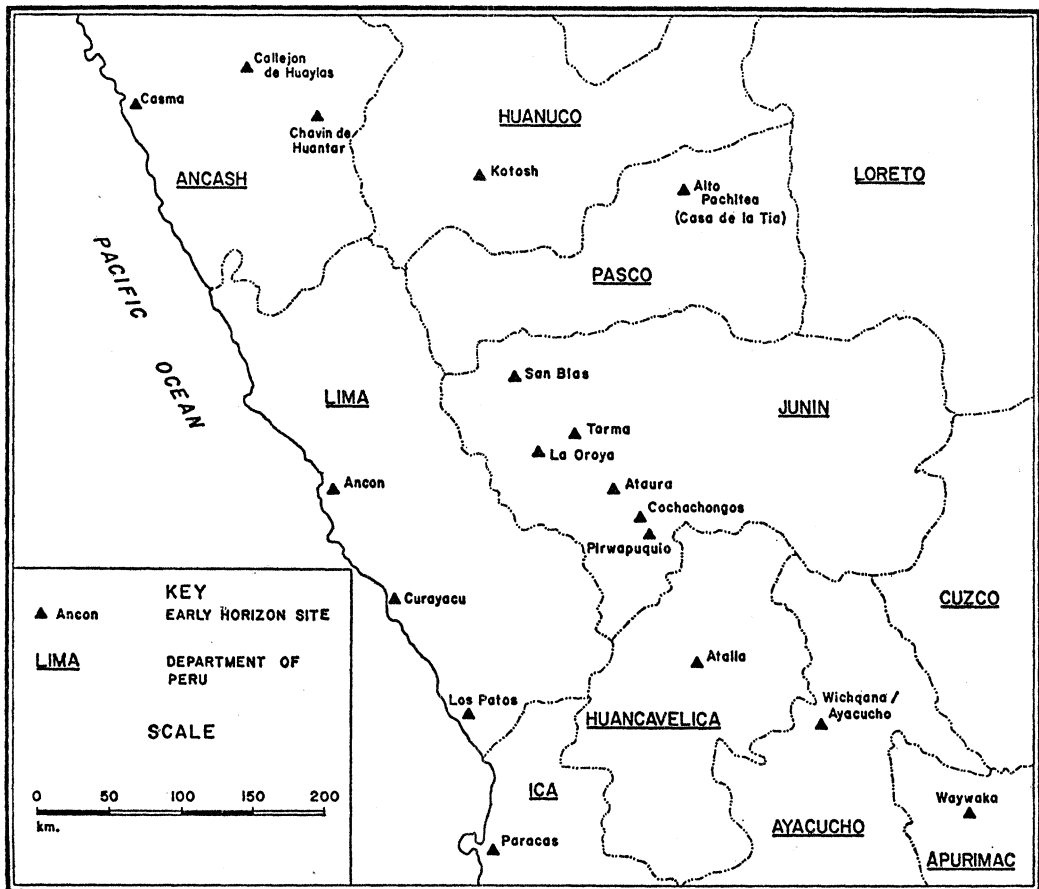


Figure 14 The Central Highlands of Peru

Huancayo valley on the Mantaro river at an elevation of roughly 3,000 m. (11,000 ft). Within the basin, which is approximately 60 km. long and 10 km. wide, 301 ceramic period sites were surveyed; ten of these were selected for test excavation, and produced a complete ceramic chronology for the area, beginning approximately 1500 to 1200 B.C.

In many areas of the Peruvian Andes, the older patterns of nomadic wandering associated with hunting and gathering had been supplanted by 1500 B.C. by sedentary, agricultural villages (Lanning 1967; MacNeish 1969; MacNeish and others 1970; Moseley 1972). But in the Jauja-Huancayo basin, for another 2,000 years, until A.D. 500, the inhabitants maintained an emphasis upon semi-nomadic llama and alpaca pastoralism, while their surrounding highland neighbours had become sedentary, fully agricultural and even, in the case of the Wari further south on the Mantaro, urbanized.

This retention of a pastoral lifeway was no doubt in part through cultural preference, but the shift in surrounding areas towards sedentary agriculture also placed an added incentive to the retention of a mobile, pastoral life. Pastoralism created a new ecological niche; it exploited land in the puna, which was basically unsuitable for cultivation, by an alternative form of food production. Pastoralism also allowed the continued exploitation of certain sierra resources in ecological zones distant from the settled agriculturalist.

It made mobility profitable by giving access to various economic goods, by encouraging the development of llama caravan trade routes, and by providing pastoral products such as wool, hides, meat etc., no longer readily available to the village farmers. Such specialization is also observable later on when, in the Jauja-Huancayo basin, a new functional niche was established – the exploitation, extraction and fabrication of copper artefacts (Browman, 1970; 1973; 1974a).

Exploitation and maintenance activities in the Jauja-Huancayo basin between 3000 B.C. and A.D. 500 are mainly concerned with llama and alpaca pastoralism, supplemented by hunting deer, guanaco and other animals, by gathering wild plant foods, and by limited wet-season horticulture (Browman 1973). Even in zones where agriculture was inappropriate, there was a contribution from agricultural products, increasing in later times. Where transhumance between lower agricultural zones and higher pastures was not possible, the herders traded with the agricultural *poblados* to obtain additional vegetables (Browman 1974a).

The preference for herding and hunting over agriculture produced settlement patterns of seasonally occupied villages and camp sites. The typical wet-season base camps in our survey area were small villages situated near rivers or lakes supplying sufficient water for the herds and suitable arable lands for the wet-season horticulture. The village of Acclahuasi (PJuM-613), one of the largest of these villages during the first millennium B.C., had a few score semi-subterranean pithouses. Average wet-season village population, based on a household size of 5–6 persons, would have ranged between 40 and 100 persons. Other seasons of the year saw dispersal into smaller settlements of herding group size; location of dry season domiciles was determined by the nature of the pasture from season to season. The wet-season settlement served as a ceremonial centre for the community and as the focal point of expression of the social community, which was dispersed and transient during part of the year, and gathered together as an entity only during the wet season at this location. The llama caravan trains were also probably organized at the ceremonial centres.

Direct botanical evidence is lacking from the survey, but based on the botanical evidence from elsewhere in the Andes, it is known that the chenopod grains and tubers were domesticated (MacNeish and others 1970; Browman 1974a). The emphasis of wet-season horticulture is proposed to have been upon growing root crops, such as potatoes, ulluco, oca and mashua and chenopod grains, such as quinoa and cañihua. Because of the relatively little attention required during the growing period and the relatively high yield of these crops, the llama and alpaca pastoralists would be able to produce and store significant quantities of agricultural crops with no apparent stress placed on their semi-nomadic pastoral lifestyle. The Andean environment was not only the optimum habitat for the domestic camelids, but it is the region where there was also early domestication of frost-resistant tubers and grains, and where freeze-drying preservation techniques for tubers and meat were developed (Browman 1973; MacNeish and others 1970; Ponce Sangines 1972; Kidder 1956). These special food preparation techniques – *charqui* or dried meat, *chuño* or dried potato tubers, and *cancha* or parched maize – allowed additional foods to be stored and consequently enhanced mobility.

Alpaca and llama pastoralism represents a cultural adjustment to a semi-arid grassland and ecosystem that can support grazing animals, but that is poorly suited for culti-

vated crops. In the Puna biotope, pastoralism is the most effective form of land use and resource exploitation. The domestic camelids were a major strategic resource, providing both energy and products readily convertible in the Andean economy. The animals provided wool for clothing, cordage, bags and slings; meat; skins for sandals and sleeping robes; *sebo* or fat required for religious sacrifices, medicine and incense; bones for weaving and leather working tools, and for flutes and panpipes; *taquia* or dung for cooking fuel and for fertilizer in tuber cultivation; the major sacrificial or ceremonial animal; and an important beast of burden for the yearly dry season trading caravans (Browman 1974a). The herds were important as long-term insurance, as commodities and transport in the elaborate long-distance trade networks, and also as a basic unit allowing the individual to participate in the institutionalized Andean system of reciprocity.

Economic dependence upon interregional trade to provide additional access to agricultural products appears well established by the first millennium B.C. Regular trade routes reached the selva or montaña to the east, other sierra communities north and south along the Andean chain, and the Pacific coastal communities to the west (Browman 1974b). If analogous to modern-day caravans (Browman 1974a), caravan merchants would have picked up textiles, dried meat, llama fat, hides, wool, chuño and tuber products from their own community. Along the way, the caravan would have traded with other sierra settlements for agricultural products, pottery, metal goods etc., picking up a variety of goods to trade in other regions. The llama caravans would have performed an educational function as well as fulfilling an economic need; new ideas and news of current events would be carried from one community to another along with the trade goods.

Religious aspects of Chavin spread rapidly throughout much of coastal Peru between 1300 B.C. and 1000 B.C., spreading along the major trade routes that connected the coastal settlements, and playing a prominent role in Andean prehistory for the next ten centuries (Benson 1971). It has been assumed that Chavin concepts similarly spread throughout the highlands, but recent work in the central and southern sierra has failed to confirm this. Events in the Mantaro re-emphasize the need for a precise definition of Chavin as a cultural complex, and the need to demonstrate cultural affinity rather than mere contemporaneity before labelling cultural manifestations in Peru during the first millennium B.C. 'Chavin' or 'Chavinoid'.

The extent of the spread of Chavin art style and concepts depends, in part, on how the style is defined. The definition used here is the same as suggested by Patterson (1971b: 33): Chavin art includes pottery and sculpture that share design features with the iconographic stone sculpture at the temple centre of Chavin de Huantar. On the basis of this definition, the entire central and southern highlands were outside the orbit of Chavin until late in the Early Horizon (see Rowe 1962 for definition of Peruvian stage terminology), when a reformed variant of Chavin emanating from Paracas seemed to sweep the entire southern half of the Peruvian Andes from Lake Junin to Lake Titicaca. However, while there are no specimens yet reported that show direct Chavin iconographic influence, it should be noted that there are rare trade pieces found at sites such as Atalla in Huancavelica, Wichqana in Ayacucho and Pirwapuquio in Huancayo, that resemble central coast styles of the time of Chavin domination.

In the Jauja-Huancayo basin, the Early Horizon is represented by two ceramic phases – Pirwapuquio, dating from the later part of the Initial Period (1300–1000 B.C.) and lasting through Early Horizon Epochs 1–4 (1000–650 B.C.), and Cochachongos, dating to the latter half of the Early Horizon (650–50 B.C.). The lower excavated levels at the site of Ataura (PJuM-801) near Jauja and of the type site of Pirwapuquio (PJuM-704) near Huancayo share ceramic features with the Colinas style and the Curayacu style of the Central Coast near Lima, with temporally equivalent phases at Kotosh and Casa de la Tia to the north in Huanuco and Pasco, with Wichquana near Ayacucho to the south, and also share a number of more general traits with a number of contiguous zones (see fig. 43).

Economic networks were clearly developed between the highland and coast, highland and selva and highland and highland communities. Pottery features indicate interaction of the posited highland llama caravan trains with the selva to the north and east for coca and other selva products; with the coast to the west for seashell (such as *Spondylus*), corn etc., and with the highland farmers to the south for tubers and other farm produce (Browman, 1970; Matos 1974). While the Central and South Coast were being incorporated into the Chavin economic sphere, Jauja-Huancayo was extending its economic networks in other directions, principally for the exploitation of new economic resources, such as copper, not widely utilized before, and in the establishment of new or expanded ties with groups in the ceja de montaña previously not as extensively exploited. Copper trade was evidently relatively important; copper was mined near Jauja, and goods excavated from the site of Ataura (PJuM-801) and Acllahuasi (PJuM-613) indicate trade with both the Pacific coast and with the Amazonian lowlands. Copper so traded must have indirectly fed the Chavin interaction sphere, for although there are no Chavin trade goods in the Jauja-Huancayo basin, with the collapse of Chavin influence to the north in Kotosh and also on the Central Coast by 650 B.C. (Patterson, MacNeish and Browman, n.d.), the copper trade goes into partial eclipse until new ties are established with the Paracas interaction sphere on the South Coast, and the copper trade revived, with goods now flowing towards the South Coast.

The religious bifurcation in Chavin ideology that occurred roughly in Early Horizon Epoch 4 (700–600 B.C.) is reflected by marked concurrent changes in the Jauja-Huancayo economic patterns. The tempo of exchange, as indicated by the quantity of foreign trade goods, increased considerably. Agricultural products and raw materials were not the only commodities being traded; technological innovations in metal-working, and ceramic design concepts and techniques were also being exchanged, as shown by artefacts recovered from both the highlands and the coast. New economic thrusts were made into the Central Highlands from both the Central Coast and the North Highlands; with the deterioration of Chavin control of the Central Coast and other areas, new trade patterns were built up to replace those collapsed, apparently reflected in part in the strengthening or establishment of new ties between individual areas formerly participating in Chavin trade, with Central Highlands communities.

Most of these new ties are with the north at this time. The conceptual stimulus for the Cochachongos style appears to have come from the highlands to the north. With Early Horizon Epochs 5–6 (600–400 B.C.), the diffusion of a new style of stamped and impressed ware, common at Kotosh and Chavin de Huantar, as well as the site of San

Blas on Lake Junin, spread to the Central Coast, occurring in small numbers in Ancon phases 5 and 6 (600–400 B.C.; Scheele 1970), and appears to spread by stimulus diffusion to the Central Highlands at least as far south as Huancavelica, introducing new ceramic decorative techniques.

The dating of this new influence to Early Horizon Epochs 5–6 is based on ceramic correlations with the Ancon and Kotosh sequences. A number of new Chavin features occur in the South Coast Ocucaje style in Early Horizon Epochs 4–5 (Menzel, Rowe and Dawson 1964); religious bifurcation of Chavin concepts occurs at Chavin de Huantar in Early Horizon Epoch 4 (Rowe 1967). The new wave of influence out of the north highlands is correlated with these events. It reaffirms the shift towards secularism in Chavin religious art that takes place in some areas of Peru at this time. More important, this new influx appears to originate in the general Chavin heartland, and suggests that even though Chavin religious concepts are still not penetrating the Central Highlands, the Central Highlands are engaged in economic interchange with Chavin-dominated areas; and that even if religious concepts are apparently not being borrowed or accepted, various ceramic traits are being borrowed from the Chavin area by Central Highlands groups.

In the period between 450 B.C. and 250 B.C. trade with external areas reaches a new maximum. Not only is there a greater range in the quantity and kinds of goods traded, but the trade itself has been extended into regions previously outside the Jauja-Huancayo interaction sphere (such as the Paracas peninsula). It marks one of the few epochs when the basin made a significant contribution to Peruvian culture history. The wide-ranging llama trading caravans, emanating from the puna from Lake Junin to Lake Titicaca, are proposed to be a basic factor in integrating the sierra regions with the coastal regions, laying the foundations for the later central and southern sierra empires of Wari, Tiwanaku and Inca Cuzco, which dominate Peruvian prehistory after the time of Christ.

By Early Horizon Epoch 8 (300–200 B.C.; see Rowe 1962, Lanning 1967 for elaboration of terminology), Paracas and Chavin had ceased to participate in the same stylistic trends (Menzel, Rowe and Dawson 1964). If the argument developed here is correct, Paracas became a primary centre for diffusion and trade for the entire Central and Southern Highlands. Ceremonial and religious practices associated with Chavin first appear in the Jauja-Huancayo basin in Early Horizon Epoch 8, a reformed Paracoid variant of Chavin concepts. This reinterpreted and revitalized version of the Chavin theology, emanating from the Paracas or Ocucaje area, swept the altiplano and puna, being carried to pastoralists and highland farmers previously outside the Chavin sphere of influence. By the end of the Early Horizon, I am proposing that the Paracas area, which had earlier been overshadowed by Chavin, had become the paramount cult centre influencing the highlands from Lake Junin to Lake Titicaca, and with spheres of influence north along the coast perhaps as far as Tembladera, near Pacasmayo. Not only was Paracas or Ocucaje a major centre of religious innovation and influence at the end of the Early Horizon, but the change in the themes present implies a modification in actual religious or mythical conceptions, a true reformation.

Returning to the assumptions at the beginning of this paper, I am explicitly suggesting that the Chavin religious cult did not extend throughout Peru for most of its 1,000-year-long period of influence. The modification suggested here is of a three part division:

the first division, early Chavin, up to Early Horizon Epoch 4, with Chavin de Huantar as the paramount cult centre, with spheres of influence including the total Peruvian Coast, but not the Central or South Highlands; a second division from roughly Early Horizon Epoch 4 until Early Horizon Epoch 7 (700–300 B.C.), where new economic, religious, artistic, and technological thrusts can be recognized and defined, with increasing secularization and erosion of the exclusive control of Chavin de Huantar; and a third division, encompassing Early Horizon Epochs 8 to 10 (300–1 B.C.), with Paracas or Ocucaje emerging as the paramount cult centre, and with Paracoid versions of Chavin concepts for the first time being found widely in the Central and Southern Highlands.

Additionally, I have suggested that, with the advent of suitable domesticated plant species, the Peruvian populace did not inexorably adopt patterns of settled agricultural life. Cohen (1974) has recently come to similar conclusions in a study on the Central Peruvian coast, and in this paper I have pointed out that certain highland groups preferred to maintain an emphasis on semi-nomadic llama and alpaca pastoralism.

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## **Abstract**

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### **Trade patterns in the Central Highlands of Peru in the first millennium B.C.**

Consideration of economic networks of the Jauja-Huancayo basin of the Central Highlands of Peru clarifies two larger issues: first, the development of the pristine (Chavin) state in Peru in the first millennium B.C.; second, the importance of alpaca and llama pastoralism previously unremarked upon in the Andes. It is suggested that llama trade caravans formed the basis of trade networks in the Central Highlands area, giving the highlands a certain economic independence, so that Chavin influence penetrated the central highlands 500 to 800 years later than it did in the coastal areas.