

Summaries of articles

The intertropical Andes: an ecological mosaic

Olivier DOLLFUS

The Andean space forms an extremely rich ecological mosaic on account of a large number of contrasts: cold/hot, dry/moist, forested/desert, flat/hilly. In the course of the millenia, the pieces of this mosaic have been modified both by anthropic action, so vigorous that it brought about the destruction of the vegetation, and by holocene climatic variations, which, although limited in intensity, did affect the ways in which space was occupied. It should be noted, however, that very little precise and generalizable data is available concerning the ancient Andean landscape; the archaeological work still remains to be done. Consequently, prudence is called for in interpreting the natural milieux of past ages.

The interpretation and use of the area's natural potential vary as a function of the technical level and forms of spatial occupation. The slope becomes a major constraint for modern societies using the motor; the damages caused by earthquakes are greater for an urban society than for shepherds. The limitations created by the presence of mountains are more severe in the contemporary period than in the past, whence the decline of the Andes.

The millenary evolution of a valley: settlement and resources in Tarapaca

Lautaro NÚÑEZ

The Tarapaca Valley, like that of other rios which traverse the Peruvo-Chilean desert, opens on to the broad pampas of Tamarugal, in a landscape which today is extremely arid. Various periods of human occupation, revealed by means of archaeological techniques, constitute the steps of a long process of settlement running from the preceramic epoch up to the present distribution of the population into small villages.

In this article, the author defines various populations existing in the pre-European era. The disturbances occasioned by the Spanish colonization introduced a new situation: socio-political and economic changes accelerated, initiating a process of disintegration in the indigenous society. The nature of this process and its critical stages, along with societal and geographical factors which account for the continuity of the occupation: these are all synthesized in a model of the disarticulation of the Andean structure. This evolution accelerated at the close of colonization with the increase in mining activity and reached its culminating point with the exploitation of the region's saltpeter resources.

The Andean "horizons": the critique of a model

Ana María LORANDI

This article examines a group of social, economic, technological, and ecological phenomena which characterized the Central Andes at the end of the pre-Hispanic period. Particular attention is devoted to the Inca state. Analysis of the archaeological

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data makes it possible to conclude that these phenomena can likewise be found during the Tiwanaco and Chavin "horizons". The author therefore suggests that these older expansions were essentially the means of establishing a system of economic, social, and political control—similar in part to that of the Inca state—and that they testify to a great degree of originality with respect to the rest of the continent.

War and rebellion in the expansion of the Inca State

John V. MURRA

Recent research on changes in the recruitment of the armed forces in the growing Inca State, has reopened the larger issue of the rapid expansion of this polity in the XVth century and its instantaneous collapse in the 1530's. The study of the rebellions frequently mentioned in the dynastic oral tradition is another way of approaching the same topic.

The archaeological study of Andean exchange

Craig MORRIS

As a result of the collapse of the state economy almost immediately after the arrival of the Spanish, primary sources describing the precolonial system are virtually nonexistent. It is therefore necessary to turn to archaeology for the concrete data needed to test our ideas on exchange in the Andes, both on the level of the ethnic communities and on that of the state. Studies on the spatial distribution of certain objects and of certain activities in a number of varied contexts have brought to light storehouses and artisan's workshops and have made it possible to analyze their production and to reinterpret the function of some urban areas. In this way the author has been able to judge the importance of the complex network of reciprocal obligations which linked the state to its subjects and to determine the nature of the exchanges involved.

The exploitation of precious metals in the Inca period

Jean BERTHELOT

On the basis of several examples, this article attempts to determine the principal characteristics of the exploitation of precious metals in the Inca period. As in the case of land, cattle, and grazing, it is necessary to distinguish, on the one hand, the "mines of the Inca", which supplied the needs of the State, of the royal families, and of the official cults, and, on the other hand, the "communal mines", which the communities could freely dispose of and which supplied the local chiefs or caciques. These two types of mines were characterized by two very different systems, one based in the centralized power structure (i.e. in the State) and the other in the communities (where it was in the hands of the local chiefs). This fundamental difference can be seen in all aspects of mining: in the control of the exploitation of the mines and in decisions concerning the number of workers and where they came from; in the location of mines, in the types of beds worked, and in the techniques employed; and even in the realm of beliefs and underlying ideologies.

Vertical politics on the Inca frontier

Frank SALOMON

How deep were the differences between the Incas' own political economy and that of the North-Andean peoples whom, in 1532, they had only recently conquered? In what way did

the seemingly abstract and rigid model of the "Fourfold Domain" offer a realistic plan for integrating these resistant chiefdoms into a state economy without any local traditional mandate? Since the Spanish invasion froze the provinces of northernmost Tawantinsuyu at varying stages of incomplete consolidation, a comparison between those at the utmost frontier of Inca penetration and those which had lived longer under Inca rule should help us picture Tawantinsuyu not as a static structure, but as a process of historical transformation.

The comparison of three zones allows us to analyze the social, economic and political aspects of this differentiated integration, as well as their destiny beyond the conquest. (One of the original features of these northern zones was the existence of a corps of merchants who travelled long distances and engaged in political activity—the mindalae.) This integration implies, moreover, that a particular kind of dynamic was at work here. This dynamic, deriving ultimately from the difference between, on the one hand, the outward-looking, alliance-oriented character of interzonal ties among chiefdoms which could achieve only local territorial control, and, on the other, the aspiration of state-organized societies to territorial control of complete resource assemblies, may be of some use in explaining the explosive growth potential of Andean "horizon" civilizations.

Some aspects of the Inca kinship system

Floyd G. LOUNSBURY

Through the analysis of the Inca kinship terminology found in various historical sources, the author attempts to construct a theory of the system which accommodates all the data, whatever their apparent contradictions or inconsistencies might be. It is a bifurcated merging system displaying an obvious Omaha character (through extension of some of the kinship terms: MB = MBs), with some evidence, as well of asymmetrical matrilineal cross-cousin marriage (MB, MBs = WF, WB, BWB, sWF, sWFF, ssWF). However, some of the terminology is clearly Crow in character, and this fact suggests the existence of the quite contrary Crow-type principle of reckoning as opposed to the Omaha-type principle (matrilineal vs patrilineal).

The author's hypothesis is that the two principles might be employed simultaneously in one and the same system, but in totally separate domains, in accordance with a principle of parallel descent, in the agnatic line for men and in the uterine line for women. Indeed, some terminological data (e.g. a man uses the term ususi, daughter, for his dddd) constrain the author to posit three-generation cycles, which result from matrilineal cross-cousin marriage among just three unilineal descent groups (minimum number for the maintenance of asymmetry). The combinations among these various terminological features of the Inca kinship system imply that any matrilineal cross-cousin marriage is also a patrilineal one; in other words, the MBd is at the same time the FFSdd, in conformity with the parallel descent principle. These conclusions are supported, at least with regard to parallel descent, by specific evidence concerning the transmission of names in historical times. The author also puts forward the hypothesis (which, however, is impossible to verify given the data available) that the Quechua of Cuzco during the Inca period did in fact conceive the matrilineal cross-cousin marriage as a marriage between a man and his F²Sd².

Classification and denomination of South American camelidae

Jorge A. FLORES OCHOA

In order to identify the animals of their herds (alpacas, lamas, wari, the shepherds of the high Andean puna generally resort to a traditional taxonomy based on a certain number of

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characteristics: the quality and nature of the wool; the sex and age of the animal; the basic tone of the animal's coat, determined in accord with one of several color ranges; and the combination, contrast and disposition of these colors. These combination of these criteria makes it possible to differentiate each animal as much as is necessary to individualize it. The present article analyzes the most elementary forms of this combinative scheme and shows the practical efficacy of this system of nomenclature.

The semiology of Andean fabrics: the talegas of Isluga

Verónica CERECEDA

The present article attempts to analyze the language of Andean fabrics on the basis of the example of the talegas woven by the women of Isluga (Chile). These are bags or sacks measuring from 20 to 50 cm which serve a number of uses, both daily and ceremonial (the transport of seeds and food during the journeys of the living and the dead).

The woven space is highly structured: square in form, the sacks are decorated with bands and stripes (in natural colors or dyed) which create a central axis, called the "heart". This axis divides the sack into two symmetrical halves, which constitute the "body" of the talega. The extremities of each side, which are always brown, represent "mouths". Within each half, a black band, contrasting with a bright band, creates a secondary axis and symbolically represents the dialectic of light and dark, of masculine and feminine.

The sack is thus conceived as a living being, an animal, drawn according to the model of "duplicated representation" analyzed by C. Lévi-Strauss. The ensemble of bands and stripes constitutes a textile code which transmits a message concerning fertility.

Sacred places and irrigation: historical tradition, myths, and rituals

R. TOM ZUIDEMA

In this article the ceque system of Incaic Cuzco is analyzed, on the basis of recent fieldwork, as a system of sightlines radiating outward from the central Temple of the Sun. One major reason that led the Incas to define the direction of a ceque was their concern with water. During the feast dedicated to expelling illnesses from the valley of Cuzco, the principal ceques separating the four suyus were followed as far as the first major rivers; but all ceques were also followed until a source was reached where water that entered the valley was ritually cleaned. Two important ceques are discussed that were directed towards the sources of two of the most important irrigation canals of Cuzco. Place-names associated with these ceques and canals also played a major role in Inca ancestor myths. A re-analysis is given of Inca concepts of social organization in Cuzco and of the mythical character of their history on the basis of these data on the spatial organization of the Cuzco valley.

Aymara space: urco and uma

Thérèse BOUYSSÉ-CASSAGNE

Before the Inca conquest, the Aymara chiefdoms had organized Collao's space according to a twofold dualism oriented about a central axis (rio Azangaro-Titicaca, Desaguadero). This diametrical pattern, which embraced various ethnic groups, reinterpreted the main geographical features (i.e. puna/valleys) and was expressed through a series of opposite terms (high/low, man/woman, right/left, fearless/cowardly), testifying

to Aymara supremacy. This logic, linking spatial regulation to socio-economic relationships, was also noticeable in some ritual ceremonies.

The Inca domination, substituting a concentric pattern for a diametrical one, disrupted the former Aymara system, while at the same time taking advantage of some aspects of the old system, in fact, precisely those that the Conquistadors also found a way to exploit.

Mirrors and maize. The Concept of yanantin among the Macha of Bolivia

Tristan PLATT

The Macha Indians can be historically related to one of the dominant groupings within the pre-Incaic Confederation of the Charka. Today, they constitute one of several ayllus in the north of the Bolivian Department of Potosí, where Andean spatial organisation, social structure, ethnic identities and ideological systems have proved exceptionally resilient. Basing the analysis upon ethnographical material collected during field research, the author shows how the problems raised by a dualistic ordering of the natural and social worlds generate a more complex, quadripartite model, which represents ecological and moiety organisation in terms of conjugal relationships. The ideology of these relationships is shown to turn on the ritual correction of sexual asymmetry in the name of an ideal of mirrored symmetry (yanantin). The analysis is reinforced by the introduction of lexical material from XVIth century Quechua dictionaries, which suggests the pan-Andean importance of this concept, and its usefulness for the interpretation of widely varied Andean meaning-systems, from weaving and ceramic designs to sculptural and architectural complexes. Finally, its function in disguising real inequalities between the sexes is related to the function of other compounds of yana- which similarly clothe relationships of class and domination in the language of "communal" reciprocity.

Symbolic transformations in Northern Potosi

Olivia HARRIS

Andean dualism in its varied expressions is now well-known. The account of Laymi dualism presented here is articulated with that of the neighbouring Macha; for the problem of dualist forms common to both has produced strikingly different symbolic resolutions. The difference is focussed in the representation of the relationship between woman and man, which for the Laymi is characterised by asymmetry and hierarchy; it can be understood both by reference to other pair relationships, and by the tripartite form commonly ascribed to such pairs in ritual. The explicit asymmetry of the triad is however made symmetrical in a sixfold structure of paired tripartition found both in ritual and in the local configuration of ethnic groups. In such symbolic operations a single married couple represents the entire group in balanced multiplicity, but this resolution leaves out of account certain concrete forms of inequality in Laymi social relations.

**People of the water:
the Uru problem in the XVIth and XVIIth centuries**

Nathan WACHTEL

Almost extinguished today, in the XVIth century the Urus occupied an exceptionally vast area running the length of the aquatic axis which traverses the high plateau (rio Azangaro, lake Titicaca, Desaguadero, lake Poopo, rio Lacajahuira, lake Coipasa), where they constituted a quarter of the indigenous population. According to the traditional image

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left by the chroniclers and taken over by travellers and ethnologists, the Uru were "primitive" Indians, purely fishers, hunters, and gatherers.

Actually, in the XVIIth century the picture was more complex: these Indians then constituted a heterogenous group to which the term "uru", rich in various connotations (ethnic, social, and economic), confers a false unity. They formed highly differentiated groups, and certain among them, already "aymarized" (while preserving a lacustrian character), possessed land and troops of animals; still, the majority of the Urus furnished the Aymaras with a work force of inferior status.

The XVIth and XVIIth centuries witnessed three opposite and correlative movements: 1. the majority of the Urus followed the path of aymarization, which in large part was completed by the 1680s; 2. the Indians who left the lakes and became integrated in the colonial system guaranteed a constant, although numerically limited supply which renewed the composition of the group; 3. those who Urus (whether tributary or unsubjected) were all the more marginalized in that the bulk of the group merged with the Aymaras, while the intermediary categories disappeared.

Henceforth, all the conditions existed to produce a veritable "ethnographic myth." In reality, what we find is a particular type of acculturation within the world of the indigenous population.

From filiation to residence: the ethnic groups of the Larecaja valleys

Thierry SAIGNES

Under the Iberic domination, the Indian peasants who immigrated to Larecaja (mitimaes) were obliged to chose their allegiance: they could either remain under the jurisdiction of their caciques from the uplands or take up residence definitively in the valleys. The present article seeks, on the basis of a consideration of the interests of the colonial power (access to manpower), to explain these choices by analyzing the modes of control exercised on the eastern slope: ethnic settlers, who were delegated by groups dwelling on the banks of lake Titicaca and who were subject to the state authority (they were placed by the Inca) made up the population of newcomers who descended into the valleys during the disorders following the conquest.

While certain mitimaes succeeded in harmonizing their vertical loyalty with their new horizontal allegiances, the majority had to give up their double residence. They gradually became mixed with the mass of foreigners and Indian workers who flocked to Larecaja in order to move into the reducciones and haciendas.

Community today

Antoinette FIORAVANTI-MOLINIÉ

"Community", the term most often used to characterize contemporary Andean societies, is much too reductive to be useful. It denies the ethnic nature of these societies and their original features, for it suggests a social structure without internal fragmentation, whereas actually an Andean group often consists of a heterogenous ensemble of parental, residential, and religious units. Moreover, these groups are differentiated on the economic and social level as well. Finally, the term totally ignores history.

Historical study makes it possible to distinguish, within the Andean world, three types of society (beyond those which live as ethnic groups). These are illustrated in the present article by three examples. San Juan Uchucuanicu (Chancay Valley, Peru) represents the archetype of the "community" in which the indigenous strain predominates. Its equalitarianism is evident in the distribution of land and water, in the organization of work,

in a way of organizing work which is based on kinship, and in its political organization. But the development of salaried work and the sale of fruit at Lima generates inequalities which could threaten to upset its equilibrium. Ambana (Larecaja, Bolivia) is representative of those societies which function on the basis of social, territorial, and residential units established at the beginning of the colonial period. Its system of landholdings can be reconstructed only if one considers it in the context of the colonial reducción. But Ambana gradually split up into various social strata in the course of the XIXth century. This is also the case of Yucay, which is illustrative of those societies that become increasingly divided into social classes with the adoption of a merchant economy. All the same, its rituals recall the period when it was organized as a reducción.

The simultaneous existence of these three examples should bring to light some aspects of the evolution of Andean societies.