
Simulating verticality

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Résumé

The theory of verticality is a paradigmatic model of Andean historical anthropology. It proposes that many societies sought to develop mechanisms to take advantage of the ecological complementarity of the different altitudinal niches of the Andean region. The mechanisms and modalities of socio-ecological interactions between niches have been explained through different socio-territorial models, formulated in different case studies, based on ethnographic, ethnohistoric and archaeological data, and sometimes on certain environmental determinism. Redes andinas research project investigates the history of socio-territorial networks and agro-ecological systems in the vertical transect of the 18S parallel (Chile-Bolivia), in order to understand their formation and transformations over the last millennium, from the Inca period to the present day. To this end, we are experimenting with a modelling approach, using agent-based simulations, to evaluate how sociopolitical, economic and climatic variables may have influenced the structuring of settlement patterns between the Pacific and the Altiplano, as well as the socio-economic mechanisms of human cooperation and socio-ecological sustainability in this heterogeneous hyper-arid region.

Mots-Clés: Peuplement, écologie, montagne, modélisation multi, agents

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