

SETTLEMENT PATTERN OF THE MACHU PICCHU REGION, PERU

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The Machu Picchu ruins have always been viewed as an isolated settlement in the Southern Andes of Peru. This research has analyzed this well known archaeological site in a regional context.

The region of study is situated in the Vilcabamba Cordillera in the Eastern Slopes of the Peruvian Andes. The approximate boundaries of this region are the Kusichaca, Lucumayo, Santa Teresa, and Urubamba rivers and the nearby ice caps such as the La Veronica and Salcantay. This region covers an area of approximately 1,500 Km² encompassing the Machu Picchu ruins, which are located at latitude 13°09' South and longitude 72°32' West. The altitude ranges from about 700 to 5,250 meters in this area. There are four major ecological zones in the region of study: ice cap, puna, ceja de la montaña, and montaña, which are found at higher and lower altitudes, respectively.

The typical settlement pattern of the Machu Picchu Region was determined by analyzing the architectural and geographical settings of 138 archaeological sites and road network. This research made extensive use of remote sensing data and techniques and a geographic information system approach, which were combined with systematic field work. Subsequently, the data was analyzed with the known models of pre-Hispanic land use and resource exchange in Peru.

The distribution of archaeological sites and ecological zones show that sites cluster according to type and ecological setting. The following types of archaeological sites are found in the study region: agricultural, pastoral, and mixed use. These types can be subdivided into permanent and temporal settlements. The agricultural sites are located at four types of alluvial terrace configuration, at the confluence of major river valleys, and near water sources. The pastoral sites are found within glacial valleys and close to glacial lakes. Also, a complex road network is present in the above-mentioned region, which allowed for communication and high degree of accessibility between watersheds.

The settlement pattern found in the Machu Picchu Region provides evidence of local and regional vertical economy, resource exchange, and land use during pre-Hispanic time. This supports the hypothesis that Machu Picchu played an administrative role in the management of resource exchange, migration, land use, and any possible disputes in the study region. Finally, Machu Picchu can not be viewed as an isolated site, but rather as part of a regional pre-Hispanic vertical economy and land use model.