

The project aim is to identify and comprehensively analyze the pre-Columbian settlement in the Atico basin, located in the northern edge of the southern coast of Peru *Costa Extremo Sur*.

It is a region where the impacts from the lying further north areas of Paracas and Nasca cultures and located south of Atico valleys of southern coast of Peru intersected. However, despite its location so interesting to archaeologists, the Atico basin is a pristine area in the terms of research. In publications and documentation of the Peruvian Ministry of Culture we can only find perfunctory information regarding to the cave sites with rock painting in the mountain area, remains of Inca roads and located within the coast shell middens of gatherer fishing communities.

Only in 2017 and 2019, a Polish-Peruvian archaeological expedition conducted here a preliminary survey aimed at assessing research potential of the valley. During the survey merely cave sites with rock painting and relics of settlements associated with hunter-gatherer communities were recorded, as well as numerous sites with materials indicating the settlement of this area since the appearance of the formative community until the expansion of the Wari empire. Within one site (El Curaca) particular attention was paid to the ceramic wares showing great similarity to the formative materials from the Tambo and Quilca Valleys, as well as the materials related to the previously undefined Late Intermediate Period culture.

The proposed project is an interdisciplinary research endeavour. In addition to archaeology, it also includes research in settlement geography, botany (palynology), physical and chemical sciences, as well as isotopic analyses of strontium and aDNA studies. During the planned research the course and character of settlement and cultural changes taking place in this region will be analyzed in spatial and temporal aspects. Creation of a map of pre-Columbian settlements for the whole region supported by geographic information systems (GIS) will be pioneering. At the same time, for each period the degree and role of various external influences (interactions/migration) in the formation of the region's cultural mosaic will be determined. This applies to the influence of communities living in the areas south and north of the Atico Valley, as well as those from the high mountain area.

The results of aDNA studies, allowing to genetically define the populations associated with particular archaeological cultures of the region, will be used for this purpose. The results of 147 samples analyzes from the Tambo and Acarí basins, currently being developed in the laboratories of the University of Poznan, will provide a comparative background.

The obtained results will demonstrate not only the development of pre-Columbian communities in the Atico catchment area against the background of environmental conditions, but will also be important for general considerations on human-environment relations as well as the role of migration and cultural interaction in the formation of communities.