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**REGIONAL PLANNING AND MANAGEMENT FOR THE CONSERVATION AND  
SUSTAINABLE DEVELOPMENT OF CULTURAL DIVERSITY AND HISTORICAL  
HERITAGE - URUBAMBA RIVER VALLEY AS A CASE STUDY**

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**FIELDWORK IN URUBAMBA RIVER VALLEY. CUSCO. PERU \_ 2009/1/5~2009/1/17**

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**INTRODUCTION**

This fieldwork has been done in the context of the research titled "Regional planning and management for the conservation and sustainable development of cultural diversity and historical heritage". The purpose of this research is to create a methodology for regional planning based in the traditional territorial planning of the study area, the Urubamba river Valley, and to develop strategies for conservation of the cultural and historical heritages with the aim of generating a sustainable regional development, using the landscape as a framework, by studying areas in transformation from rural to urban.

The target of study is the Inka Sacred Valley, inside the watershed of the Urubamba river, occupying a small part of the central area of this system, in the limit between the mountains range and the rainforest. In 2006, the Inka Sacred Valley was declared "Cultural Heritage of the Nation" (Law No 28296), becoming subject of protection by the INC (National Institute of Culture of Peru) as an Andean core where it is possible to find historical and cultural heritage as well as biodiversity and unique sceneries. Vilcanota river, also called Urubamba river, the sacred river of the Inka culture is the axis of the most tourist area of Peru where one can visit Inka archeological remains spread all over the territory. However, Vilcanota river is now at the risk of becoming a "dead river", because of its high levels of pollution due to its function as the drainage of Cusco city coming from Huatanay river and from the towns and tributaries along the valley. Vilcanota river articulates several settlements that could be considered cultural landscape where *"cultural landscapes often reflect specific techniques of sustainable land-use, considering the characteristics and limits of the natural environment they are established in, and a specific spiritual relation to nature."* (UNESCO, 1992) Nonetheless the lack of a proper management of the region becomes an obstacle when it is necessary to define boundaries and responsibilities. Therefore, this area is now in great danger due to a mixture of lack of urban and ecological planning, the lack of policies implementation for the protection of the cultural heritage and the increasing economical abuse from the historical assets through tourism. *"Protection of cultural landscapes can contribute to modern techniques of sustainable land-use and can maintain or enhance natural values in the landscape. The continued existence of traditional forms of land-use supports biological diversity in many regions of the world. The protection of traditional cultural landscapes is therefore helpful in maintaining biological diversity."* (UNESCO, 1992).

**HYPOTHESIS**

It is possible to apply ancestral concepts of territorial planning that consider the relationship with environment, for the sustainable process of urbanization in this historical area. By ancestral concepts, I refer to the strategies used by the Andean people along time for inhabiting and managing the territory. I think it is possible to find these essential concepts or pattern of settlement by the study of historical heritage and local culture relationship with water and soil in order to create a plan based on watershed management.

**FIELDWORK PURPOSE**

The purpose of the fieldwork in the Inka Sacred Valley was, first, to collect information about current plans or projects being applied in this area, visiting municipalities and institutions in charge of the urban planning of the settlements in the study area and have interviews about the guidelines and perspectives for the conservation and planning in the area. Secondly, it

was essential to visit the settlements in the study area in order to observe the existing conditions and the development directions and results.

## **PROCESS**

The fieldwork had a duration of two weeks, both in Cusco city and the Inka Valley.

The institutions visited in Cusco city were as follows:

1-The National Institute of Culture - INC

2-Municipalities of Ollantaytambo, Chinchoro, Pisaq, Urubamba and Calca

3-Institute for Disaster Prevention – INDECI

4-Ministry of Agriculture

5-Regional Government – IMA Project (Institute for Water and Environmental Management)

6-San Antonio Abad University Library

The visit to the settlements was based in a trajectory along the main and secondary riverside, the open public spaces, the axis of development and the boundaries of the settlements and the observation of the water system. The Inka remains were not visited, except in the case of Chinchoro, because of a lack of time – usually they are located in the top of the mountains and the access is by walking -.

The settlements visited were Ollantaytambo, Urubamba, Calca, Pisaq and Chinchoro.

A Inka trail was done from Chinchoro to Urquillos in order to understand the connection between Chinchoro and the Valley System.

## **RESULTS:**

The results were the acquisition of important documents about the conservation and development planning inside the study area:

1) Plan de desarrollo de la provincia de Urubamba, 2002

-Development plan for the province of Urubamba-

2) Plan de desarrollo de la provincia de Calca, 2005

-Development plan for the province of Calca-

3) Desarrollo urbano de Calca, 2004 (tesis)

-Urban development of Calca-(thesis)

4) Plan de desarrollo urbano de Ollantaytambo 2006

-Urban Plan of Ollantaytambo-

5) Plan de desarrollo urbano de Chinchoro 2006

-Urban Plan of Chinchoro-

6) Plan maestro del Valle Sagrado – Diagnóstico

-Master Plan for the Sacred Valley-diagnosis 2008

7) Risk management evaluations for Pisaq, Calca, Urubamba, Ollantaytambo 2006

8) Zoning of the Region 2007

9) Indicadores ambientales de la Región Cusco, 2005

-Environmental Indicators of the region of Cusco-

10) Dataset of Calca

11) Quickbird satellite images of Inka Sacred valley settlements, 2007

The visit to the settlements result is a collection of pictures of the study area existing conditions and the detection of the axis of development and the problems being generated in the urbanizing areas. Also it was important for the observation of the landscape features and to understand the geographical position of the settlements.

According to the fieldwork, the target area was delimited to the zone from Ollantaytambo to Pisaq, excluding the town of Aguas Calientes (Machu Picchu town) and the southern part of the river Valley, the districts of San Salvador and Santa Teresa.

The study area will cover two provinces: Calca and Urubamba, and 11 districts from these provinces, Urubamba, Ollantaytambo, Chinchoro, Maras, Huayllabamba and Yucay from Urubamba and Calca, Pisaq, Lamay and Coya from Calca side.

However the settlements where this research will focus are Calca, Urubamba, Ollantaytambo, Pisaq and Chinchoro, that are the ones facing more problems due to the lack of planning and the tourism intrusion.



Fig.1 Urubamba Plaza



Fig. 2 Ollantaytambo Plaza



Fig 3 New Plaza of Chinchorro



Fig 4 Calca Plaza



Fig 5 Pisaq market in the Plaza

## CURRENT WORK

### 1) Research and bibliography review:

- Ian Mc Harg. "Design with nature". John Wiley & sons, INC 1992. USA.
- Ann Spirn. "The language of the Landscape". Yale University Press 1998. USA.
- David R. Maidment, editor. "Arc Hydro". Esri Press 2002. USA.
- Alfredo Lozano, "Cusco, Qosqo. Modelo simbolico de la cosmologia andina", CONAIE / FAD-PUCE / CODENPE, Ecuador 1998
- John Hyslop, "Inka Settlement Planning", Texas University Press, 1990

### 2) Study area analysis:

- a) Watershed analysis
- b) Acquisition of Aster data (Geo-grid) for land cover analysis of the study area
- c) Creation of maps of the towns of the valley: Chinchero, Calca, Pisaq, Urubamba based on Google Earth photographs, satellite images and maps from the Diagnosis and Development Plans
- d) Characterization of the cultural landscape in the Inka Sacred Valley: Historical heritage, water system, land use patterns

## PAPERS:

- a) "Conservation of Andean cultural landscape", Proceedings for the 13<sup>th</sup> Inter-universities Seminar on Asian Mega-cities, Manila, Philippines, 2008
- b) "A study on the conservation and Regeneration of Andean cultural landscape. Ollantaytambo village as study case". Journal of the City Planning Institute of Japan, October 2008 - PUBLISHED
- c) Presentation in the City Planning Institute meeting for presentation of papers, University of Hokkaido, November 2008.
- d) "Sustainability in the Inka Sacred Valley, Chinchero village as a case study" – PAPER IN PROGRESS- Proceedings for the 14th Inter-universities Seminar on Asian Mega-cities, Taipei, Taiwan, 2009.