



CREATION

January, 2014

SOCIAL-ECOLOGICAL FRAMEWORK

The territory observed by the OHMi is has been a “mining country” for more than a century since gold and copper exploitation started at the end of the XIXth century. It is also marked by the development of the Tucson metropolitan area due to the expansion of the air and space industry, of services and also due to the migration from other regions of the US of retired people wishing to enjoy the dry and sunny climate of the “sun corridor”. In the context of aridity which characterizes the Sonoran desert, providing this socio-ecosystem with water is a difficult challenge, which puts the different water users more and more in competition for this scarce resource. Mining operations, irrigated agriculture and urban sprawl have nonetheless coexisted during about a century. Only recently did agricultural and mining uses of water like what is projected in the Rosemont project appear more and more contradictory with the new emphasis on water management developed in urban areas.

DISRUPTING EVENT

The beginning of the controversy around the Rosemont mine project, which is located in the Santa Rita mountains South of Tucson (its opening is still uncertain due to juridical procedures).

The intensity in this debate, in what used to be a mining country, shows the changes that have taken place in the man/environment relationship in Pima county, where landscapes and biodiversity tend to be more valorized today than ore extraction. The controversy about the Rosemont mine also allows to study the intertwining between scales (local/regional/national) of political organization, militant activity and rules. It also points out to the fact that the binomial relation between landscape and water management is the keystone of the local socio-ecosystem.



KEY TOPICS

The OHMi wishes to favor the study of the following topics:

- Conceptual modeling about hydrological aspects of the Rosemont mining site and of the upper Santa Cruz river basin;
- Characterization of the upper Santa Cruz river as complex socio-ecosystem including numerous human and non-human actors;
- Following of the impact of mining operations (active or forthcoming) in terms of pollution, ecological changes, water management, particularly in the light of the “new mining” concept and of corporate social/ecological responsibility;
- Studying the interface between science and society related to these questions through the information/mobilization/resistance perspective;
- Management of environmental conflicts linked with mining, especially through the comparison of Pima county with other regions across the world.

TERRITORY

The Pima County OHMi is centered around the upper valley of the Santa Cruz river, a nowadays ephemeral stream which crosses the Southern part of the state of Arizona. This watershed will be heavily impacted by the Rosemont mine project. It corresponds to the Eastern part of the Pima county and is the eastern end of the state’s Sun Corridor. Inside the OHMi’s territory stands the Tucson metropolitan area, surrounded by mountains little above 10,000 feet. Urban areas have sprawled on a very large area, covering about five times the size of Paris for about 900,000 inhabitants. As in the rest of the US West, those urban areas are characterized by a very low demographic density. The area observed by the OHMi also includes two major running mining operations (Sierrita and Mission mine) and several abandoned mines. It also encompasses irrigated areas for the production of alfalfa or pecan nuts.



SOCIAL-ECOLOGICAL ISSUES

The socio-ecological issues covered by the OHMi span across three different aspects, each with its own temporal and spatial scale. At the local level and on a short contemporary time span, the OHMi studies the controversy around the Rosemont mine project and how it polarizes the population and the authorities across the Pima county. At a region scale and on a longer time span, this issue must be replaced within the general question of surface and groundwater management in the US Southwest. Last, the issues covered by the OHMi cover the question of the use/preservation of natural resources and the transformation/conservation of landscapes, which allows for comparison with other observatories and for global historical analyses.



CONTACTS

François-Michel LE TOURNEAU (Director)
» Francois-michel.le-tourneau@cnrs.fr
<https://ohmi-pima-county.in2p3.fr/>

ADDRESS

UMI 3157 iGLOBES - University of Arizona
Marshall Building - 845N Park Avenue
POBox 210158-B - Tucson, AZ 85721 - USA