



Panta Rhei – Everything Flows Change in Hydrology and Society IAHS Scientific Decade 2013- 2022

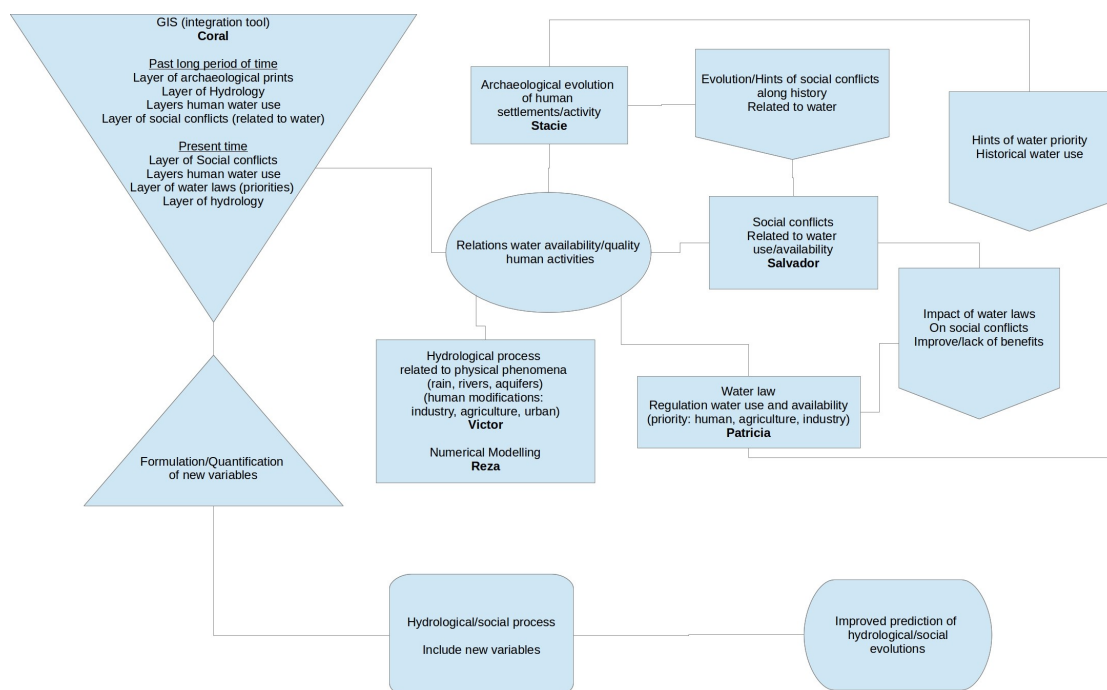
www.iahs.info/pantarhei

Summary of the activity of the Panta Rhei Working Groups - Year 2014

**Title of the Working Group: Integrating history, social conflicts
and hydrology: From semi pristine to highly modified hydrological
systems**

Report of the activity of the working group in 2014

1 We have built a conceptual map of the activities of the group.



2 We have been working in the setup of the hydrological model to study the dynamics of the surface water flows and the impact of the pollution from the mine at “San Jose de Gracia” near “Nejapa Valley” in Oaxaca, Mexico.

We have built the model using NOAA database elevations and a refinement on the Rio Tehuantepec course. We run a simulation of two days with extreme rain and the impact in the case of a dam break with a tracer using Telemac system.

We need to better define the model at Nejapa Valley as we have seen some divergences at the river course and then we will run the model for at least one year.

3 We have integrated the ancient settlements in the region provided by Dr. King. We have noticed that the biggest settlement have been located near the river course. Also, that the destruction of these settlements may have be related to extreme hydrological events and social conflicts in the past.

4 We presented these results at the “5º ENCUESTRO NACIONAL DE INVESTIGADORES” UABJO Oaxaca. In that congress we presented Panta Rhei as well.

5 We have contacted local authorities in Nejapa and San Carlos Yautepec, Oaxaca to inform about our activities.

Description of the opportunities provided by Panta Rhei

We have the platform to collaborate with colleagues in an alternative way. No need to get through the paperwork of the institutions. Panta Rhei gives us more visibility and impact for our discussions because it has an robust structure and clear objectives.

Suggestions for the future development of Panta Rhei

Make a hub of Panta Rhei in Mexico as many Mexican authors are integrated in different groups. This will facilitate face to face discussions and integrate ideas. This also may have a more important impact to approach stakeholders and apply for fundings to achieve field work.