



A visual report of the visit to the facilities of *Nuevos Riegos El Progreso* during the Congress “Traditional irrigation systems and environmental values”, organized by the WADI team from the University of Alicante.
Saturday, 11 november 2006

The company “Nuevos Riegos El Progreso” was founded in 1906 with the aim of pumping drainage waters from the Lower Segura valley to the Elche Countryside. It was the first time that freshwaters arrived to this arid contry, so this fact provoked a deep landscape transformation, both from the ecological and the socio-cultural point of view.

Further, the initiative was soon followed by other companies, the most important of which was 'Riegos de Levante Co'., who built the El Hondo reservoirs (the present Natural Park) in order to retain and regulate the waters taken from the Segura.

Since 1906 (so 100 years ago), El Progreso continues to provide water to the fields of Elche. It is now one of the oldest private enterprises of Elche and a living part of its historical, cultural and environmental heritage related to water management



Water systems should be considered also a historical, environmental and cultural heritage

According to WADI Project objectives, this visit has tried to discover to local teachers of Elche, as privileged transmitters to new generations, one of the key (but frequently forgotten) factors of the present Elche landscape, as so as the great value of this heritage of industrial archaeology, a living testimony of the local history related to water management

The first stop of our visit: Assarb de l'Acierto

One of the drainage canals of the Segura valley from which the water of El Progreso is taken



Recycling scarce natural resources as far as possible can be considered one of the basis of sustainability.

Used waters from the 'assarbs" (drainage canals), which had already irrigated the Segura Valley fields, were reutilized by El Progreso in order to irrigate other fields, those of the thirsty Elche Countryside.

In the first years of 20 c., these modern ideas of '*recycling*' were already practised, as a necessity, in the surroundings of El Hondo

Ortices, the first pumping station, near Assarb de l'Acierto.
Water from the *assarbs* or *azarbes* is here elevated ca. 5.30 m.



Speech by Mr. Rafael Martinez, expert on the hydraulic industrial heritage of Nuevos Riegos El Progreso,



Speech by Mr. Enrique Ferrándiz,
engineer of N.R. El Progreso Co.

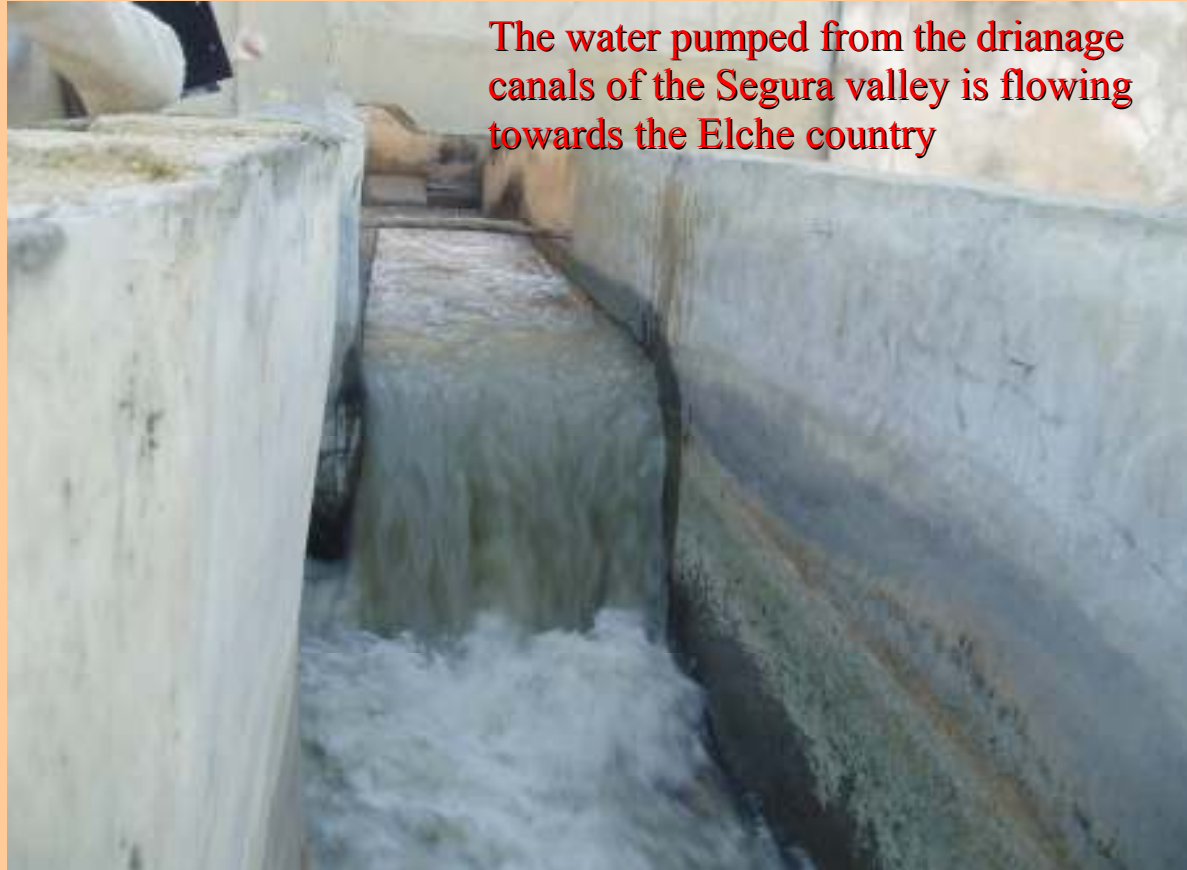


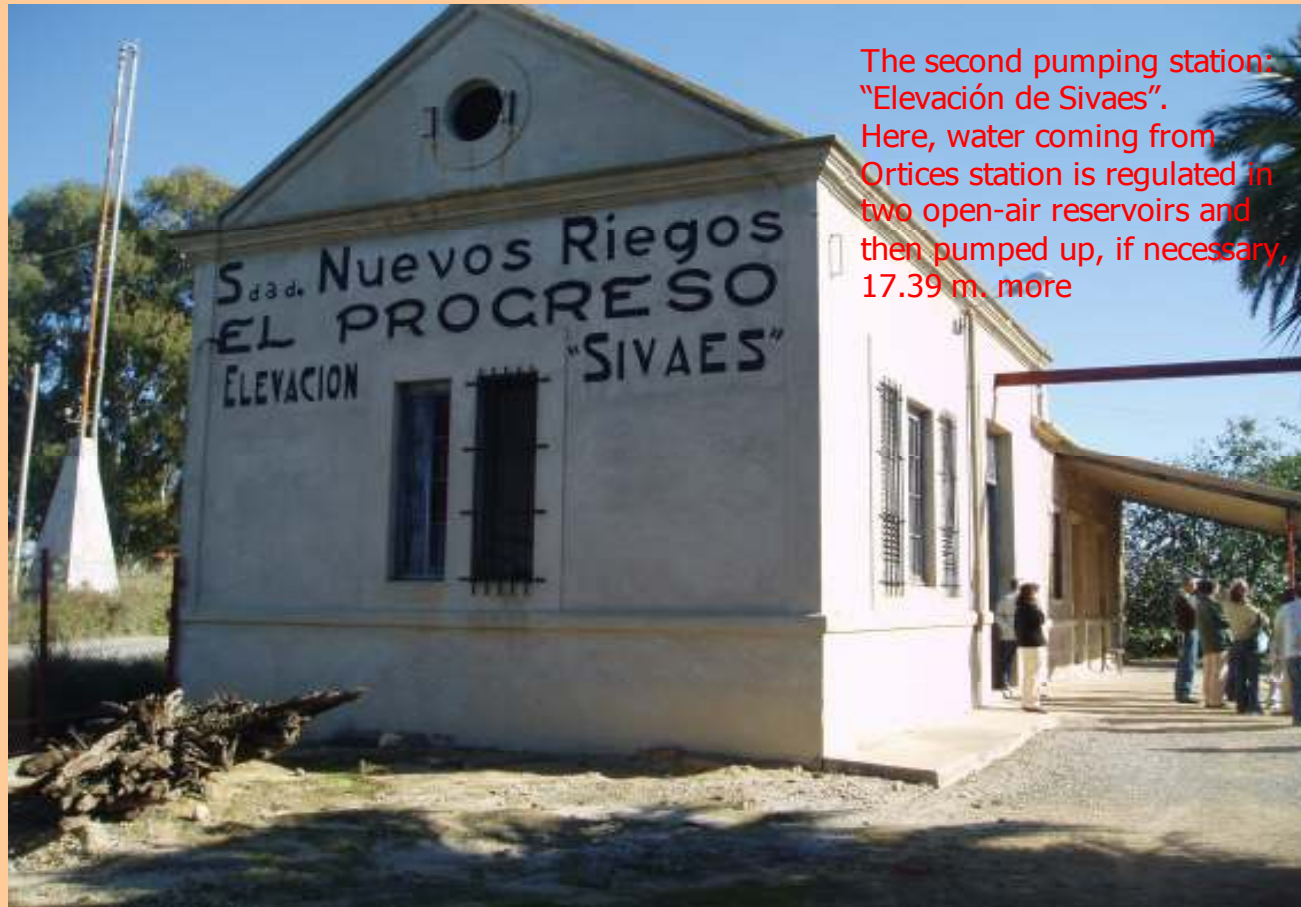
El Progreso facilities contain an unusual collection of old pumps and machinery dating back from the first year of 20 c. still functioning and thus maintaining the Elche agro-landscapes.

Here, the pumps of Ortices station



The water pumped from the drianage
canals of the Segura valley is flowing
towards the Elche country





The second pumping station:
"Elevación de Sivaes".

Here, water coming from
Ortices station is regulated in
two open-air reservoirs and
then pumped up, if necessary,
17.39 m. more

Irrigation facilities provide useful habitats for a rich fauna in the surroundings of El Hondo Natural Park



A heron (*Ardea cinerea*) seen at the Sivaes water reservoirs during our visit to El Progreso facilities (november, 1st 2006)



Mr. Ferrándiz switching on the old pumps of Sivaes Station



Machinery from the
1930's still at work
in Sivaes Pumping
Station

The third pumping
station: "Derramador"

Water is elevated
here ca. 15 m. more



The stones of Derramador's walls are very rich in fossils, almost a palaeontological exhibition of the biological communities inhabiting Elche's sandy beaches in ancient times.



It is said that the wall stones of the Derramador station were taken from the ruins of the San Francisco de Asis' parish church, an abandoned village founded by the Marquis of Elche in the 18 c. as a failed effort to colonize the wetlands surrounding the present El Progreso facilities.

***A symbol perhaps of the continuity of human efforts aiming to control water in these arid lands?
The same stones,
used in two phases of the history of the relations of man and water in the Elche countryside***

The iron staircase descending
to the machine's room of
the Derramador station



Also here, the machinery is formed by an interesting collection of hydraulic industrial archaeology



Cuatro Pilaes Station,
the fourth pumping
station. Water is
elevated here other 32m.,
in order to reach the
remaining Southern
half of the Elche
countryside





The elevation of water to the Elche countryside was possible only thanks to the technical advances related to the use of electric power.

For this reason, our ecosystems, including those of the greatest ecological importance, as El Hondo, should be considered electricity-subsidized ecosystems.

Here, the old electrical board of Cuatro Pilaes Station, from which power was transmitted to the other pumping stations

The impressive wooden staircase which descends to the machines room of "Cuatro Pilaes" station



A view from the top of the staircase.
Down, in the machine's room
eng. Ferrandiz explains the
characteristics of the old machinery



The old machines
pumping up water.
During our visit,
the strange noise
of the their
ancient power filled
the room





Part of the visitors group, formed mainly by local school and college teachers

.... And this is the result of El Progreso historical initiative: an irrigated agricultural landscape in the Elche sub-desertic countryside (surroundings of El Hondo Natural Park)



Nowadays Elche's rich natural and cultural heritage is largely based upon irrigation, upon a history of wise water management. The landscape of the surroundings of El Hondo are largely a product of human transformation of a dryland, and depends on the maintenance of this traditional wisdom, now in risk of disappearance



Some technical advances
have created our social
and environmental
welfare

Memorial of Ernesto Martínez
Riviere, promotor of the idea
of Nuevos Riegos El Progreso

(Municipal Park of Elche)



Special thanks to Mr. Rafael Martínez and Mr. Enrique Ferrándiz,
our guides during this fascinating visit.
Also to Mr. Antonio Valero, member of the directive board of the
company, and Mr. Manuel Martínez and Mr. José Esclapez
employees in charge of El Progreso facilities.

Photos provided by José Francisco Girona, Francisco Bellod,
Ismael Gallardo and Samantha Pastor, teachers and environmental educators
participants in the Congress