

1st IWA Regional Symposium on  
***Water, Wastewater and Environment: Traditions and Cultures***,  
 Patras, Greece, 22-24 March, 2014

## Conclusions

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## Organization

The 1st IWA Regional Symposium on ***Water, Wastewater and Environment: Traditions and Cultures***, has come to its end after three fruitful conference days and one and half year of preparation, which demanded substantial efforts from the Organizing Committee (OC) and Program Committee and of course the contributors. The Symposium was organized in Patras, Greece, from 22 to 24 March, 2014. The Conference was organized in the following 9 Sessions:

- Ancient and traditional technologies for water and wastewater management
- Urban water supply in ancient civilizations
  
- History of water and climatic changes and /or variability
- Cultural and socio-economic issues of water and sanitation in ancient civilizations
- History of irrigation
- Historical development of urban water supplies ( e.g. cisterns, aqueducts, fountains, etc)
- Cultural heritage in river basins
- Evolution of urban wastewater and storm water management through the centuries
- Environmental issues

The aims of the Symposium were:

- (a) To reveal the cultural heritage in several regions of the world and to make visible the archaeological remnants of technologies which have contributed to the development of the existing technologies in water and wastewater management.
- (b) To describe and evaluate the ancient and traditional technologies, which on a long term may contribute to water and wastewater management systems and to the development of integrated methodologies.

- (c) To develop small systems based on old technologies using new equipment, which may be of great significance for water, wastewater and environmental management in the future, particularly in developing countries.

It is a joint conviction of all participants that the Symposium succeeded in its objectives. The OC was impressed by the diverse themes of presentations and the substantial advancement of the several topics. 118 full papers and 6 short papers were selected and included in the proceedings of the Symposium.

The Symposium was an international one, with more than 118 scientists and professionals from 21 countries.

### **Final conclusions**

We have attempted to draw a few general conclusions that summarize the state of the art in the field and the Symposium contribution. Here is the list of the most important conclusions:

- Ancient hydraulic structures such as baths, theaters, palaces, monasteries, etc constitute valuable historical resources for information related to water management and technology.
- Development of new technologies is not trivial but a historic process.
- Culture and politics are important factors for the incorporation of a new technology or a new water science concept developed in a different region.
- Water management is affected by both climate variability and uncertainty and natural hazards such as earthquakes, floods, etc.
- The best design includes optimization and foresees future needs.
- A closed water cycle and/or water reuse are ideas that are often seen in the history of water science.
- Wastewater treatment alone does not seem as a satisfying solution. Production of valuable by-products (e.g. effluents and biosolids) is desired.
- All symposium participants believe that they can learn from the past.
- A common language is required in order to be able to communicate new information from historic resources to new technology developers and vice versa.
- These topics have a great importance in an educational perspective since we have the opportunity to educate the new generations also by means of (new) Water Museums, focusing on historical and technological aspects of ancient water civilizations.
- The continuation of this conference will certainly improve communication among scientists and help provide solutions for current and future problems. Thus, the organization of the 2nd IWA Regional Symposium was proposed to take place in Estonia.