all aspects of water and wastewater analysis techniques and categorizes the analytical methods based on the constituent and not on the type of water. Since the Twenty-First Edition, all existing, revised and new methods are available online (www.standardmethods.org). The recently published Twenty-Second Edition contains 87 EPA-approved methods, 233 revised methods and 14 new methods described in ten chapters divided in sections. The procedures described in this edition are intended for use in analyzing a wide range of waters and in certain cases are intended for use with sludges and sediments, all of them with the widest possible application and most of them have been endorsed by regulators. The 22nd edition contains methods for the analysis of dissolved solids, metals, free and total chlorine, odor, taste and flavor profile analysis, disinfection by-products, radionuclides, total organic carbon and total and fecal coliform. All methods are dated to clearly identify changes between editions.

There are more than 80 sections with significant technical/editorial changes consisting of references to the revised quality assurance/quality control (QA/QC) section. These changes are a direct and a necessary result of the mandate to keep up to regulatory requirements and also a policy intended to clarify the QC steps considered to be an integral part of each test method. To improve consistency and ensure reliable results, laboratories that desire to produce analytical results of known quality, are encouraged to phase-in and use the QA/QC procedures specified in the most recent, approved editions of that compendium.

Iciar Vázquez Carranzo

Professor Francisco Armijo has done a very plausible job both in the organization committee as well as in the scientific committee for the 38th World Congress of the International Society of Medical Hydrology held in Lanjarón Spa in June this year. However as he says in the introduction to his book: “I wanted to add something very personal to this congress and I thought that this book that you now have in your hands would be very appropriate both to the subject and to the place of the celebration”.


The author, bibliophile expert, includes a rich and complete bibliography with two hundred sixty one references that include twenty nine books specifically on medical hydrology and cover most of the information on Granada spas between the years 1697 and 2010 as well as a rich and personal iconography or as he puts it (“I have always tried to include personal pictures or engravings of the spa establishments, most of them done by the aragones painter Manuel Ramos Armijo who in my opinion has grasped perfectly the aesthetics of the buildings and of the scenery”).

The travelers and the hydrologists give the information included in the texts. Traveler is defined by the Real Academia de la Lengua (official Spanish dictionary) as “the person who does a trip and writes down what he has seen”. Armijo has done these journeys under this condition, observing in detail all the places mentioned in this book and as a hydrologist, with more than forty years of experience dedicated to the teaching and investigation of medical mineral waters in the School of Medical Hydrology of the Complutense University of Madrid, has taken note of his impressions “my medical friends prefer to visit the spas in full activity, the bathers give them life; but I prefer to visit them when they are empty because it is then that the water shows its full strength, heat and purity, listening to it flow through the corridors in the darkness brings me closer to that wonderful molecule that gives man life and health”. This way he becomes the last traveler-hydrologist to give his first hand comments and figures and brings us all the way to present days.

In all, as said in the conclusions: “we have to ask the different authorities, owners, neighbors, visitors and users of any type of water to get to know them in order to understand their importance, respect them and fully enjoy their beneficial properties knowing that we are absolutely in need of them”. There is no doubt that papers like this one contribute to these objectives and, as in this case, achieve the recognition of a prize from the scientific committee of the ISMH as the main contribution to the Congress.
In my opinion, this book is essential for anyone who wants to understand Granada’s medical mineral waters and its history.

Francisco Maraver Eyzaguirre


This monography of the Anales de Hidrología Médica de la Universidad Complutense de Madrid titled Medical Hydrology and Balneology: Environmental Aspects, is entirely dedicated to the 38th World Congress of the International Society of Medical Hydrology and Climatology, celebrated in Lanjarón, Granada on the 20 to 23rd of June, 2012.

The first thirty five pages of the total 465 pages have all the information on the different committees; honorific, organizer and scientific, the program of the congress, the various presidents’ messages and the titles and authors of the many oral presentations and posters.

The oral sessions of the Congress were dedicated to The State of Art, Climatology, Thalassotherapy, Dermatology, Health Benefit, Dead Sea Climatotherapy, Scientific Investigation Methodology, Drinking Cures, Mud Therapies, Sustainable Health Tourism, Biology, Dermo-Cosmetological Issues and Miscellaneous. The Société Française de Médicine Thermale, the Sociedad Española de Hidrología Médica and the Consejería de Termalismo del Ayuntamiento de Ourense also had their own particular sessions.

Two poster sessions dedicated to Biology, New Trends, Drinking mineral waters, Mud Therapy, Climatotherapy, Thalassotherapy and Dermo-cosmetological issues and Miscellaneous took place.