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## THE BANA PERIODICAL

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FALL 2014 ISSUE 1



**Quapaw Bathhouse, Hot Springs Arkansas**

*Photo: Gail Sears, National Park Service*

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# BANA WELLSPRINGS EDITORIAL

## *WELCOME FROM THE BANA BOARD*



**Saratoga Springs, N.Y.**

*Photo: C. Josayma*

**The Balneology Association of North America (BANA)** supports a diversity of people interested in natural mineral waters for health and wellness by providing education, research and information. We all share an interest in the field of Balneology, the science and culture of baths and bathing, either through our expertise or personal experiences.

Millions of people around the world regularly use natural mineral waters for their personal health and wellness benefits. People throughout Europe, Asia and Latin America have long relied on Balneology as a valid health care and medical field. Balneology is consistently taught, practiced, researched and documented for its important and widespread contributions to health, wellness and healing in these countries.

Our primary goal is to revitalize Balneology as a significant healthcare practice in North America. Our highest interest is to encourage and engage you, your family, friends and colleagues to join our association. The purpose of the BANA Periodical is to initiate a forum on topics and issues to revitalize mineral water bathing, research, education, information and most importantly, the health-giving practices of Balneology.

Welcome to BANA!

**Executive Director:** Cynthia Josayma, MA; **Board Members:** Janet Abbott, TLMT; Dr. Marcus Coplin, ND; Prof. J. Paul DeVerville, PHD., MSSW; Chris Devlin, FNP, EdS; Deborah A. Smith, MBA, CMC; and Michele Solloway, PHD., RP.

**Board Editorial Advisors:** Dr. Les Moore, Mary Bemis.

# INTRODUCING BALNEOLOGY

PROF. J. PAUL DE VIERVILLE, PHD, MSSW

When I first began writing about BALNEOLOGY and BALNEOLOGICAL on my iPad various words and options appeared unexpectedly on the screen.

A few examples: bold apology, ball apology, bone analogy, ball myology, ball knowledge as well as MOMA logical, bald electrical, phonological, ball illogical, ball low logical, the only logical, boldly a logical...and on and on....

Obviously the two words – the noun: BALNEOLOGY and adjective: BALNEOLOGICAL – are not within the iPad dictionary, vocabulary or language.

Few people in North America have heard of these terms and even fewer have occasion to use them in conversations or in descriptions of matters concerning baths and bathing for health-full, well-full and therapeutic uses in natural mineral waters.

If on the other hand, you take a little time and look a little deeper with any search engine, you will find the right definition.

bal·ne·ol·o·gy : n. / bal·ne·ol·o·gical: adj.

"The science of baths or bathing, especially the study of the therapeutic use of thermal baths."

So BALNEOLOGY is really a simple word referring to the study and use of natural mineral water baths and the healing practices of those unique waters, including the temperature, various types of minerals, gases and periods, as well as the health and wellness conditions for using the baths.

*Photo: JP DeVerville*



Of the various words that came up unexpectedly on my iPad, I particularly liked the term: "MOMA-logical." This brought to mind pleasurable visit in the Museum of Modern Art in NYC. Here I was bathed in art-- some I liked, others not.

The baths and bathing in art, as well as the art of baths and bathing for leisure, aesthetics, wellness and therapeutics. The beauty of therapy as well as the therapy of beauty.

Of course there is a whole lot more than just art and beauty in baths and bathing. There are also the fields of the sciences and technologies of baths and bathing as well as the social, politics and spiritual experiences.

# BALNEOLOGY EDUCATION

CYNTHIA JOSAYMA

In countries around the world, Balneology is an integral part of medical science training and research within universities. Balneology focuses specifically on health in natural mineral waters, gases and periods and is prescribed for prevention, healing and rehabilitation. The field also takes in account climate as well as natural energies such as light, sound and electromagnetic fields that influence human health.

In general, Balneology studies include Balneotherapy, the specific uses of natural mineral waters through bathing, drinking and steaming; the curing and applications of periods, as well as new practices emerging from scientific research.

Every country has identified their geographic sources of therapeutic mineral waters and determined their healing benefits. In order for a region to receive the designation as a Balneology spa town, it has been carefully researched for its specific profile, the kinds of minerals and temperatures of the waters; the gases, periods and climate variations, all which lead to defining the ultimate benefits for specific kinds of diseases. In general, natural mineral waters used for curative purposes must contain at least 1000 mgs. of at least one kind or a total variety of dissolved minerals and gases.

Throughout Europe and many other countries around the world, Balneotherapy is covered by the national health care systems and patients will be referred by their doctor to the appropriate waters for their particular disease. Every Balneology spa has a chief physician who oversees the patient's recovery and patients are assisted in their treatment by trained Balneotherapists.

The field of Balneology is typically taught in medical departments. In Italy, Balneology treatments are actively practiced in 390 natural mineral water sites, treating over 1 ½ million people annual. There are two main schools for thermal medicine in Rome and Milano. In both, all medical students receive an overview course in the field and specialization lectures are given within Physical Medicine, Rehabilitation and Rheumatology. There is also a Masters Degree in Spa Medicine.

At the University of Seville, Spain, classes are taught in Medical Hydrology and Climatology since 1989, as part of required medical studies. The courses include soaking, drinking and steam treatments, as well as climate, periods and ocean waters. The treatments are specifically oriented to address rheumatic and respiratory conditions; digestive and metabolic, endocrine, neurological, circulatory urological, skin, as well as pediatric and geriatric diseases. In France, Balneotherapy is principally taught in the Institute of Hydrology, in Dax Institute. The majority of educational institutions focusing on Balneology are involved in extensive research on the subject which continually supplies new data that is used to support the practice throughout Europe. The research is done at the Universities in Paris; Grenoble; Bordeaux; Montpellier and Toulouse, and all have documented the health benefits for chronic arterial diseases, post thrombosis, chronic pulmonary diseases, rheumatic and low back pain, as well for Alzheimer prevention and geriatric health.

Since 2008, medical degrees across Europe are harmonizing their curriculums and are currently in the midst standardizing the core coursework requirements, which include Balneology, Medical Hydrology, and Climatology.

Here in the United States, there are currently no educational institutions, yet, teaching the field of Balneology or Balneotherapy. There is one new research program in Balneotherapy within the Master of Science in Integrative Medicine Research within the National College of Natural Medicine, in Portland Oregon.

There are numerous natural mineral water spas across our landscape and we have a long history of extensive research on their benefits, as well as wide public use, but we are lacking the education and research to adequately utilize the waters for the natural health benefits that Balneology provides people in other countries around the world.

BANA is committed to engaging educational institutions throughout North America to establish Balneology into the core medical curriculum, as a part of complementary care practices. The job creation alone from the educational development of Balneology will be significant. New professions would include professors, therapists and researchers, but also water management specialists, health policy and insurance specialists, and significant growth in architecture, hospitality and entertainment services for specific natural mineral water locations. Finally it is the health benefits that are the true goal for bringing Balneology into practice.

### **BANA'S Educational Work**

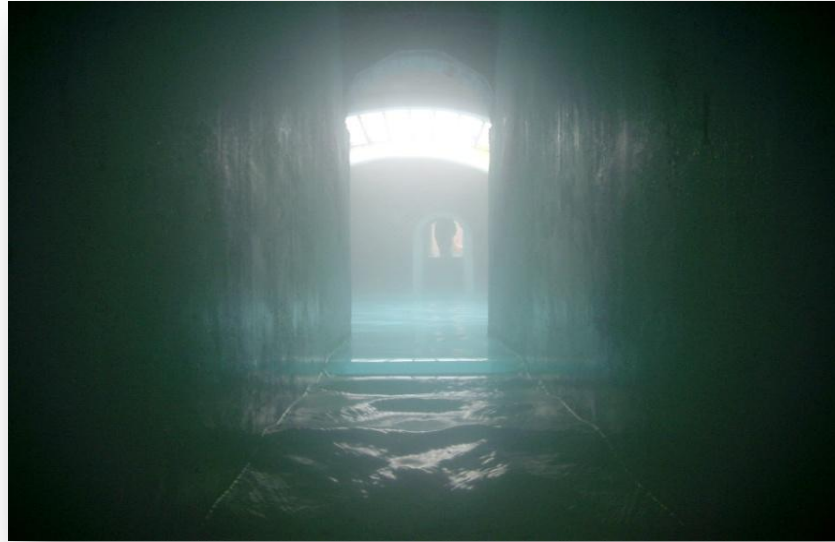
Our educational focus is to inform North America about the field of Balneology and Balneotherapy, and to encourage individuals and organizations to participate in regional research initiatives.

BANA plans to collaborate with contemporary medical research organizations, to introduce Balneology to encourage health projects that engage local communities with medical issues distinctive to the healing values of the waters within a 25-50 mile radius of each town, to set a base line for tracking outcomes. We believe that the reinstatement of Balneotherapy will provide economic incentives for regional health care industries, as well as support environmental protection and appreciation of these unique waters.

We believe that a secondary benefit to highlighting the natural the healing benefits will lead to increased tourism, with many people coming back regularly, to support their best health in adapting to the seasonal changes in temperature. Balneology Spas will be recognized as healthy vacation destinations, for preventive care, as well as treatment of chronic diseases and rehabilitation goals.

# SEEKING THE WATERS FOR WELLNESS

JANET ABBOTT



***El Escondido Hot Springs, Mexico***

*Photo: J. Abbott*

Natural mineral waters have always provided benefits to living creatures on earth. There are both cold mineral waters as well as thermal waters that are naturally heated by the earth's core. Water travels through the depths of geological time, dissolving minerals on its way to the surface and emerges as springs with a unique chemical composition that can be used to hydrate and heal.

Most commonly found beneficial minerals are calcium, magnesium, potassium, iron, bicarbonates, sulphur, chlorides, silica, lithium and boron. Native people in countries around the world were the first to use natural mineral waters and often referring to them as sacred healing waters.

In North America, Lakotas named their waters "Wakan Tanka" or "Great Mystery". The Salinan Indians from Paso Robles called them "Heaven's Spot" for their health benefits. The springs were also respected as sacred neutral grounds among warring tribes for resting and recuperation.

Natural mineral water spas subsequently developed around the globe with unique styles for bathing based on culture, climate and quality of the waters. The Romans were the first known to have developed "Thermaes", vast bath houses where people would soak in pools and steam in saunas to recuperate and revitalize. These community

bathhouses were such a popular place for people to meet regularly for health and conversation, that Rome established Thermaes throughout the Roman Empire for the use by all citizens.

Balneology, the science of using natural mineral waters through soaking, drinking and steam cures has provided significant research that proves the health benefits for people who seek the waters for wellness. Both the temperature and mineral composition of natural spring waters have been validated for their specific healing qualities.

Thermal water brings about healing through the beneficial effects of both the minerals and the water temperature. Naturally earth heated mineral waters are also known to contain a high concentration of negative ions which contribute to good health.

When immersed in thermal mineral waters, the body reactions also stimulate health.

First, the pores in our skin dilate, allowing only the necessary amount of minerals to be absorbed, such as calcium, magnesium, sulfur and chlorides. For instance, sulphur water can cure many skin conditions such as fungal infections, dermatitis and psoriasis.

The heat also increases blood circulation which helps to stimulate the removal of toxins from the body as well as regularize gland functions.

Balneology research has proven that within 2 to 3 weeks of using natural mineral waters that are specific to your health condition, full health can be restored.

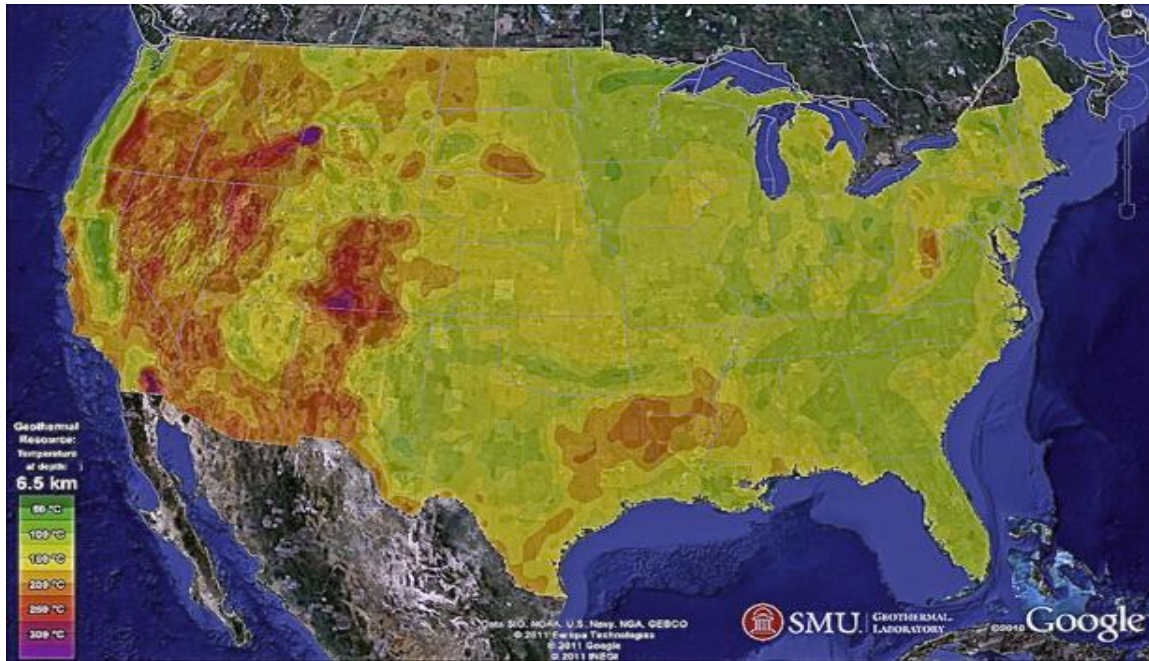
**Sources:** *Balneological Use of Thermal Water in the USA.* John W. Lund

*Healing Springs. The Ultimate Guide to Taking the Waters.* Nathaniel Altman



# SIX GEOTHERMAL SPA TOWNS

CYNTHIA JOSAYMA



<b>West Virginia, Berkeley Hot Springs</b>	39°37'32"N 78°13'37"W	Temp 74.3°F/23.5°C
<b>Arkansas, Hot Springs National Park</b>	34°29'50"N 93°3'19"W	Temp 43°F/6.6°C
<b>New Mexico, Truth or Consequences</b>	33°8'1"N 107°15'10"W	Temp 98-115°F/36.6-46°C
<b>Wyoming, Thermopolis Hot Springs</b>	43°38'44"N 108°12'53"W	Temp 72-133°F/22-56°C
<b>California, Calistoga Hot Springs</b>	38°34'53"N 122°34'58"W	Temp 180°F/82.2°C
<b>California, Desert Hot Springs</b>	33°57'40"N 116°30'29"W	Temp 85-200°F/29- 93°C

\*Modified from SMU Geothermal Laboratory 6.5 km Temperature-at-DepthMap (2011) [Google.org/egs](http://Google.org/egs)

Throughout North America there are significant cold and thermal natural mineral water sources that are being used extensively for health purposes, some for over 10,000 years. Here we will profile six major spa towns in the United States that have at least five mineral water spas on site. All locations have played a significant historical role in the health of people who came to *take the waters*. The balneological differences between these regions are determined by the kind of minerals in the water, as well as the heat, climate and periods of the region.

**Hot Springs, Arkansas.** These hot springs were used for centuries by the Tunicas Indians, who introduced them to the Spanish conquistador, Hernando De Soto for their healing benefits in 1541. The waters were later designated as the first Public Land grant to the citizens of the United States in 1832 and later became a National Park. There are numerous mineral water springs on location, containing principally bicarbonate, silica, calcium and carbon dioxide, emerges at 143 degrees, and are used for rheumatism, skin conditions and rehabilitation. There use to be 20 bathhouses with over 50 attending doctors prescribing water cures for over 2 million people annually. Today there are only

three places that medically use the waters; a rehabilitation center, and two hospitals, Libbey Memorial and Levi hospital.

**Berkeley Springs West Virginia.** The waters here are known for becoming the source for the first privately owned hot spring spa, directly after the founding of the United States. President George Washington purchased the site from the Iroquois Indians. He had been introduced to the waters healing benefits in his youth and had subsequently used them often to heal his soldiers after battle. The waters are lightly mineralized, principally infused with carbonates, sulfates and trace minerals, with a geothermal temperature of 74 degrees. It is used predominately for rheumatism, arthritis and skin diseases.

**Thermopolis, Wyoming** sits alongside of Yellow Stone, the first National Park selected specifically for its geothermal sources. The town is rich in healing mineral water sources that were long used by the Shoshone and Arapaho Indian Tribes. Yellow Stone National Park, Hot Springs State Park claims to have the largest mineral hot spring in the world, also has numerous thermal springs that people from around the world come to bath in. In Thermopolis, there are eight hot springs that emerge at 180 degrees, with 27 minerals including bicarbonate, sulfate, chloride calcium, magnesium, and sodium, with over 2400 mg. of dissolved minerals per liter. These waters are used commonly for arthritis, rheumatism and stress.

**Truth or Consequences, New Mexico**, which lies along the historic Spanish trade route between Mexico and Santa Fe, New Mexico, also has one of the largest thermal water basins in North America. The waters have one of the highest concentrations of sodium, calcium chloride, and bicarbonates thermal mineral waters in the country, and the water is naturally heated between 98-115 degrees. There were once 40 hot springs spas, with a constant flow of people, coming to take the waters for arthritis and digestion problems.

**Calistoga, California** was used for centuries by the Wapoo Indians and was subsequently developed as the first major spa town in California in the 1870s. These waters which emerge at 180 degrees are high in sulphur and there are significant quantities of volcanic mud that are used in treatments. There had been 30 resorts in Calistoga at its peak; today there is only four that use the mineral waters.

**Desert Hot Springs, California** is the healing water home to the Cahuilla Indians, and has been a mineral water spa destination since the 1950s. It is unique in that the water is drawn from two geological water sources, an ancient deep coldwater table and a thermal lake. The minerals include sulphur, sodium chloride, bicarbonate and silica which are used for arthritis and joint pains.

**Sources:** *Balneological Use of Thermal Water in the USA.* John W. Lund

*Healing Springs. The Ultimate Guide to Taking the Waters.* Nathaniel Altman

# GEOLOGY AND HEALTH BENEFITS OF NATURAL MINERAL WATERS

JANET ABBOTT

**Corpora non agunt nisi soluta**  
**Only when dissolved can substances have an active effect.**

While visiting a natural mineral water source one might want to know the qualities of the water. Many water sources are rich in minerals that can be absorbed into the body by both drinking or bathing. Each cell in our body forms and maintains an extensive network of essential minerals. The human body requires minerals to regulate the metabolism, hormones, enzymes and general health. Human skin, the largest organ of the body, absorbs only the amount of needed minerals, which is a much more effective system than taking mineral supplements through the digestive system.

Below is a general overview of the geological origins of natural mineral waters and general information related to how mineral waters are utilized by the body for health through hydration.

## **Calcium:**

**Geology:** An alkaline earth metal found in limestone and marble.

**Health Benefits: Hydrating with Calcium rich mineral waters** allows a consistent level of calcium in the body's fluids and tissues is needed for muscle contraction, blood vessel contraction and expansion, the secretion of hormones and enzymes, and communication through the nervous system. An adequate intake of calcium builds and maintains proper bone mass and helps prevent osteoporosis, a condition of low levels of calcium.

## **Magnesium:**

**Geology:** An alkaline earth metal, found in dolomite, carnalite and seawater.

**Health Benefits: Hydrating with Magnesium rich mineral waters** supports energy production, oxidative phosphorylation, and glycolysis. It contributes to the structural development of bone and is required for the synthesis of DNA, RNA, and the antioxidant glutathione. Magnesium is also a cofactor in more than 300 enzyme systems that regulate diverse biochemical reactions in the body, including protein synthesis, muscle and nerve function, blood glucose control, and blood pressure regulation. Magnesium also plays a role in the active transport of calcium and potassium ions across cell membranes, a process that is important to nerve impulse conduction, muscle contraction and normal heart rhythm.

**Potassium:**

**Geology:** An alkali metal, typically in carnallite, langbeinite and polyhalite that has been formed in ancient lake and sea beds.

**Health Benefits: Hydrating with Potassium rich mineral waters** alkalizes the system by working with sodium to balance body fluids. Potassium helps regulate the heartbeat and is necessary to move nutrients and wastes through the cell walls. More of this mineral is needed when the body is under physical or mental stress. Potassium is essential for normal heart rhythm, assists recuperative powers and reduces inflamed joint conditions. It is a natural pain reducer.

**Sodium Bicarbonate:**

**Geology:** A salt found in nahcolite and natron formed during the Eocene age during periods of high evaporation.

**Health Benefits: Hydrating with Sodium Bicarbonate rich mineral waters** neutralizes acids in the system. Sodium bicarbonate is also used to make the blood and urine more alkaline in certain conditions. It may be used to treat the symptoms of stomach or duodenal ulcers.

**Sulfur:**

**Geology:** Non-metal sulphur usually derived from a combination of minerals, most commonly in sulfides of copper, iron, lead, and zinc or in sulfates such as barium, calcium, magnesium and sodium. It is usually found in salt deposits and volcanic regions.

**Health Benefits: Hydrating with Sulfur rich mineral waters** has been used medicinally since ancient times. Also known as "nature's beauty mineral", because your body needs it to manufacture collagen which helps with skin elasticity and keeps us young looking. Sulfur is contained in every cell in the body. It's a component of three different amino acids, the building blocks that makes up protein. Approximately 0.25 percent of your total body weight is sulfur. It is most concentrated in keratin which gives you strong hair, nails and skin. Sulfur eases irritated skin conditions and helps protect the body against toxins in the environment. Inflammation can be relieved by taking a soothing bath in hot sulfur springs.

**Chloride:**

**Geology:** Derived from subterranean sea beds with significant deposits of rock salt or sandstone.

**Health Benefits: Hydrating with Chloride rich mineral waters** regulates fluids within the cells and supports absorption of nutrients, stimulates lymph and nerve impulses. Chloride travels primarily with sodium and water and helps generate the osmotic pressure of body fluids. It is an important constituent of stomach hydrochloric acid (HCl), the key digestive acid. Chloride is also needed to

maintain the body's acid-base balance. The kidneys excrete or retain chloride mainly as sodium chloride, depending on whether they are trying to increase or decrease body acid levels. Chloride may also be helpful in allowing the liver to clear waste products.

**Lithium:**

**Geology:** An alkali metal commonly found in crystalline granite which is made up of a combination of minerals including spodumene, petalite and lepidolite.

**Health Benefits: Hydrating with Lithium rich mineral waters** can help protect your brain from exposure to toxins produced by your own body. Toxic molecules are formed naturally during the course of normal brain metabolism. Lithium supports nervous system, moods and sleep.

**Boron:**

**Geology:** A metalloid found in boric mineral salts such as borax, ulexite and colemanite. Typically found in thermal waters.

**Health Benefits: Hydrating with Boron rich mineral waters** provides trace elements which have an important influence on both calcium and magnesium metabolism. Boron is concentrated in the bone, spleen and thyroid indicating boron's functions in bone metabolism and hormone metabolism. Boron is useful for increasing muscle mass; muscle strength; maintaining bone density; improving calcium absorption; and decreasing body fat.

## GASES

**Carbon Dioxide:**

**Geology:** Produced as the by-product of combusting hydrocarbons, it is also the natural respiration of all living organisms on earth. Thermal water sources are the primary sites where earth releases carbon dioxide, from sedimentary rocks such as limestone, dolomite or calcite.

**Health Benefits:** Stimulates breathing in small quantities, dilates the peripheral blood for improvement of circulation.

## MUD/PELOIDS

**Geology:** Found in clay, bog earths, moors and peats

**Health Benefits:** Muds provide medicinal minerals for absorption, good for skin firming masks, remove toxins from the skin and from the body.

**Sources:** *Linus Pauling Institute, Micronutrient Information Center  
Wikipedia for Mineral Profiles*

# A RUSTIC SOAKER'S GUIDE TO BATHING ETIQUETTE

DR. MARCUS COPLIN, ND.

There are many different thermal mineral springs all over North America. The range of experience is vast. Many are well established resorts and smaller stewarded sites. These places tend to have their own rules of conduct and as a guest in any place, one should follow those guidelines respectfully. But, there are also hot spring sites that are considered rustic or off the beaten track. It is for these places and in hopes of maintaining their uniqueness and intimate healing environment that the following guideline of hot spring etiquette was written.

1. A rustic spring must be shown in person. Never give out directions to someone who you are not taking yourself and pass that rule along to anyone you do bring. In this way the respect and reverence for the site can be shown by example and the tradition of care-taking can be directly passed along.
2. NEVER pollute a site. If you pack it in, pack it out. And if you see any old trash, pack it out.
3. The spring is for healing. Keep respect for this by:
  - ▲ Keeping Alcohol and Recreational substances away from the water
  - ▲ Being mindful of your voice. Many times the conversation at a spring can be wonderful, but chit-chat is distracting. Choose your words carefully.
  - ▲ Soak nude. Give your skin the chance to fully soak in the minerals, while keeping the pool free from any potential chemicals. Acknowledging that nudity is not the normal social experience is part of the disarming that can occur in order to facilitate healing at a rustic spring. It is never appropriate to stare, make suggestive comments or advances to anyone. This is a sacred space. Act right, everyone who enters a spring is there to heal on some level, keep that in mind. If you experience unwanted attention, just remind the source of that attention of why you are there and thank them to please not direct that towards you. People listen.
4. The native tradition around many healing water sites is that they are places of peace. Weapons would be laid down around the periphery and feuds put to rest whilst in the area of the spring. This shows respect for the gift of the healing water as being a universal gift. Do not bring your anger, hostility or weapons to a hot spring site, only the willingness to heal the injury underlying them.
5. Be Responsible for your health. Even experienced soakers can overdo it. If your heart rate is going too fast or too strong, take a break. Make sure you drink plenty of fluids and that you have dry clothes to change into.
6. Make room for others. Everyone loves coming to a rustic spring and getting to stretch out in the pool. Sometimes everyone shows up to love that experience at the same time. Remember that trying to control that or getting upset about it will not facilitate your healing. Go with it, make room for everyone to have a soak and take turns.
7. Give thanks. The waters are listening.

# BALNEOLOGY MEETINGS 2014

## ***International Multidisciplinary Conference on Mineral Waters***

September 8-11, 2014

"Genesis, Exploitation, Protection and Valorisation"

Karlovy Vary (Carlsbad), Czech Republic

<http://www.socgeol.it/>

## ***Global Spa and Wellness Summit: Fast Forward***

***Includes a special session organized by the "Global Hot Springs Initiative"***

September 10-12, 2014,

Four Seasons Resort Marrakech, Morocco

<http://www.globalspaandwellnesssummit.org>

## ***Termatalia: 14<sup>th</sup> International Fair of Thermal Tourism, Talassotherapy and Spa***

October 1-3, 2014,

More Quality, More Wellness

Termas Rio Hondo, Argentina

<http://termatalia.com/lat6.php>



**Pagosa Springs, Colorado**

*Photo: C Josayma*

# BECOME A BANA MEMBER!

Joining BANA as a member has multiple benefits, first and foremost is that you are joining a committed group of people to work together to bring Balneotherapy to the forefront of North America's health care choices.

The benefits include:

1) Directly support the growth and development of Balneology in North America

2) Personal Education and Information

BANA will be hosting regular seminars and conferences to insure members are on the cutting edge of new health practices,

- Bi-Annual Periodicals
- Invitation to Lectures, Conferences and Special Events
- Educational Podcasts

3) Professional Association

BANA members come from diverse professional background, and all hold the same conviction that natural mineral waters are a primary source of health and wellness. Our membership has experienced people who can provide guidance and useful insights, as well as a source of solutions.

4) Become an Active Member: Commitment of 2-4 hrs a month

Consider joining or even proposing a new committee or action group to help us all achieve our mission to bring Balneology fully into practice again across North America. By getting personally involved, you will quickly meet key people and organizations committed to working on the common objective to see Balneology recognized and practiced widely.



# BANA PUBLIC ENGAGEMENT

To date, BANA has facilitated two public information forums in order to introduce our organization, as well as to seek public feed-back. Our first tour, Spring, 2012, was to Northern California where we hosted mineral water owners, local water users, medical practitioners and city government officials in Calistoga, Sonoma, Vichy Springs, Harbin and Avalon Springs.

The participants found great interest in the historical overview of Balneology which was widely practiced throughout the North America until the mid-1920s, as well as the potential future benefits for their region. The participants expressed broad support for our initial goals and specifically requested that BANA encourage research to determine optimal health guidelines as well as cautionary principles regarding adding chlorination to geothermal mineral waters.

The following year, Spring, 2013, we hosted a second public meeting in the spa town of Truth or Consequences, New Mexico. This town has one of the largest geothermal sources of chloride rich water in North America and consequently has been a popular health destination for decades. The City Mayor and Commissioners toured BANA board members through a number of the mineral water spas. We also visited the Veteran's Home with the largest public mineral water pool in town. This site was initially built as a hospital for children with polio who used the natural mineral waters for their rehabilitation. Later it was given to the Veterans Administration for recovering veterans.

Our public meeting in Truth or Consequences was well attended and in the follow-up discussions, we discovered that the question regarding chlorine and natural mineral waters had actually been resolved in New Mexico, with new state-wide policy legislation that clearly distinguishes the different chlorine requirements between municipal swimming pool waters and natural geothermal waters. Other key issues raised were in regards to need for respect of Native American sacred healing waters traditions; concern over sustainable water use; and affordability of access to the waters.

Now, BANA is moving forward with its goals having received our non-profit status!

## ***Upcoming Activities***

### ***Balneology Topic Conference Calls***

We will be hosting a focused series of conference calls with leading experts and interested participants to work through a series of topics that have emerged as cutting edge to getting the Balneology back into practice. The goal for each series will be to define the specific issues that can support Balneology to thrive once again throughout North America, and what future actions are required to bring it to full flow.

### ***BANA's First Balneology Congress***

We will be hosting the first Balneology Association of North America Congress. Please sign up online to get updates on the location, presenters and participation opportunities.

# THANK YOU WATER STEWARDS FOR WELCOMING THE BANA BOARD IN 2012-2013!

## **Northern California:**

Sharpsteen Museum:	Kathy Bazolli and Dean Enderlin
Auberger Spa :	Cindy Reilly
Avalon Springs:	Richard Bock
Calistoga Spa:	Micheal Lennon and Jan Thomas
Chris Canning:	Chamber of Commerce
Indian Springs:	Daniel Merchant and Marisol Naredo
Harbin Hot Springs:	Carol Thompson
Indian Springs:	Merisol and Erik
Roman Spa:	Kathy and Michael Quast, Page Monte
Sonoma Mission Inn Spa:	Donna Shaffer
Vichy Springs:	Gilbert Ashoff
Calistoga Tribune:	Pat Hampton
Chamber of Commerce:	Chris Canning
Calistoga Tribune:	Pat Hampton
	Dr. Jeanette Williams

## **Truth or Consequences, New Mexico:**

Mayor:	John Mulcahy
Commissioner:	Steve Green
Blackstone Hotsprings:	Rob Wheeler
Charles Motel and Spa:	Kathy Clark
La Paloma Hot Springs:	Cynthia Clayton
Pelican Spa:	Sid Bryan
Fire Water Lodge: Owner:	Richard Epstein
Sierra Grande Lodge and Spa:	Sazi Marri
Riverbend Hot Springs and Spa :	Jake Foerstner
Geronimo History Museum:	Sherry Fletcher
New Mexico State Veterans Home:	Carol Wilson and Alvena Dawson