



The Skeptics SA guide to Bottled waters

In the past, apothecaries and charlatans would prepare concoctions of various cheap herbs and alcohol to sell at a huge profit to the gullible public. They claimed these were wondrously efficacious elixirs able to cure every known disease, restore youthfulness, revitalise sexual potency, and even extend life. Yet even these audacious mountebanks would never have thought it possible to sell extravagantly priced ordinary water to the gullible public, something that is now a common practice today!

Given that, as numerous tests have shown, not only are there no actual differences between bottled and tap water, but there are also no additional health benefits, one must accept the fact that the sale of bottled water is one of the greatest con-tricks ever foisted on a gullible public! As *Choice* (2005) observed, the success of bottled water is simply, “a triumph of marketing”. Russell Howcroft, a marketing executive observed, “The only difference between bottled waters is in the image and the packaging.”

Image is certainly an important aspect of the promotion and sale of bottled water. The fact is that some 25% of bottled water is actually tap water. One local brand, Aqua Pura, is Adelaide tap water that has been put through

Skeptics SA

a filtration process. Although Aqua Pura costs around \$1.12 per 1.5 litre bottle; at 75 cents per litre it is relatively cheap compared with other brands, e.g. The Italian Aqua Panna is \$5.00 per litre.

Despite its origins promoters seek to present the image of clean, clear water coming from some virginal source, yet the facts are clearly quite different. For instance, the Australian brand Mount Franklin comes from various locations but none comes from Mount Franklin. Overseas waters are similarly deceptive: Alaskan Falls water is from Worthington, Ohio, Yosemite Waters from Los Angeles, while Everest bottled water comes direct from the Municipal Water Supply in Corpus Christi (Texas). In other words, it is tap water. (Penn and Teller, 2003.)

To prove that ‘image is everything’ Penn and Teller (2003), played a prank on customers of an exclusive Californian restaurant. They had a ‘Water Steward’ promote a variety of different bottled waters to patrons; these included L’eau Du Robinet, (French for tap water), Aqua de Coola, Mount Fuji, and Amazon. Asked how they compared to tap water, all claimed it tasted much superior. L’eau Du Robinet was described as having a taste almost like a beverage, but without the sugar or any additives,

while Mount Fuji was described as having a “glacial, organic taste”. What the patrons did not realise was that all of the different bottles had been filled with ordinary tap water from a hose at the rear of the restaurant. When told the truth patrons could not believe it was ordinary tap water.

Testing has consistently shown that most people, even experts, cannot distinguish between the taste of tap water and bottled waters. As Wallopp (2007) reported, when a number of wine connoisseurs, rated as the most sophisticated tasters in the UK blind tested a selection of 20 bottled waters, ranging price from 1p per litre (London tap water), up to £50 per litre, the tap water was rated the best tasting.

Taste tests conducted by *Choice* (2005) revealed similar results; people were unable to distinguish between two leading brands of bottled waters and Sydney tap water.

While public water services are closely regulated, there are little or no checks on the bottled water industry. Studies by the Natural Resources Defense Council in the United States of 1,000 bottles of 103 different brands over four years, found that,

“While most of the tested waters were found to be of high quality, some brands

were contaminated: about one-third of the waters tested contained levels of contamination — including synthetic organic chemicals, bacteria, and arsenic — in at least one sample that exceeded allowable limits under either state or bottled water industry standards or guidelines.” (NRDC, 1999.)

In an attempt to gain a share of an increasingly competitive industry, bottled water producers often make the most incredible claims for their products. One common claim on many brands is that it is a ‘natural product’ or it contains ‘all-natural ingredients’; this is probably one of their few true claims, for water is quite definitely ‘natural’!

One brand, Skinny Water, claims that drinking their product 30 – 60 minutes before a meal helps to suppress the appetite, increases metabolism, and blocks carbohydrate absorption. Peppermint flavoured Metromint claims to provide numerous ‘natural’ benefits including calming the nerves, soothing and reviving the body, stimulating the brain, energising the senses, increasing the appetite, aiding digestion, freshening breath and opening up the nostrils.

A number of bottled waters now contain various fruit syrups; this appears to be an attempt to make them appear more like sports drinks. One brand, Spring Valley Smart Water claims that “it’s smart, and it’s water. Each individual flavour has been formulated and vitamin enriched to refresh the mind as well as the senses.”

Skeptics SA

In addition to the ‘ordinary’ varieties there are some that appear to be aimed at New Age fad-dists. The esoteric waters include such ‘special’ varieties as ‘oxygenated water’, starlight waters and chromatically altered water.

Oxygenated water claims to contain ‘additional amounts of oxygen’ and are marketed with such absurd claims that a lack of bodily oxygen is a principal cause of illness, and because their water contains a greater concentration of oxygen than normal, the surplus oxygen will be quickly absorbed by the cells in the body, resulting in quite incredible improvements in health.

One brand marketed in South Australia, Athletic Oxygen water Apollo₂, claimed that it contained, “up to 3000% more soluble oxygen than ordinary tap water” The producers of Apollo₂ promised their product produces,

“Rapid rehydration, neutralisation of carbon monoxide (CO) in the blood and lactic acid, detoxification of toxins, reduction of free radicals, viruses, fungi, parasites and heavy metals, improved metabolism and fat burning during weight loss programs, enhanced performance of all health products, helps to relieve migraines and headaches caused by high altitudes, effects of jet lag, asthma attacks, speeds up recovery from drug and alcohol abuse, lowers blood pressure.”

While it is true that water can, and does, contain additional amounts of dissolved oxygen, (this is what fish breathe), the figure of 3,000% is a gross exaggeration. Furthermore,

as Barrett pointed out, to absorb oxygen from water we would need to have gills like a fish, and even this would not, “significantly raise the body’s blood level of oxygen”.

A further problem with this claim is that when we drink water, plain or oxygenated, it goes into the stomach, and since we normally obtain oxygen through the lungs, not the stomach, oxygenated water is essentially useless. If you really feel the need for water that contains additional amounts of oxygen then all that is necessary is to take a half filled, sealed bottle of water and give it a good shake.

One particular water product, mentioned by Raso (1996), is grandiosely claimed to be imbued with ‘Cosmic Vibrational Energy’. This product is based upon the absurd claim that humans absorb stellar energy, and that the brighter a star, the more profound its influence upon individuals. It is claimed humans can attune themselves to particular stars, either by meditating on them, or by ingesting Starlight Elixirs: usually a mixture of alcohol and pure water that has been exposed to the rays of a particular star and so, it is claimed, has ‘captured’ its stellar vibrational energy. Its producers claim it can transfer these beneficial stellar energies to the drinker. In similar vein Raso (1996) also mentions water that has been charged with ‘orgone’: a non-existent form of energy that is allegedly administered to patients during Orgone Therapy.

Similarly, one can also purchase water that has been hydrochromopathically imbued with energy, (Raso, 1996). Spring or distilled water

is said to be 'altered' by being placed in either a coloured glass bottle, or a clear glass bottle wrapped in coloured material, which is then placed in direct sunlight, indirect sunlight, or artificial light for at least three hours. This 'energy enhanced' water is said to be a health-promoting elixir, with specific colours being recommended for particular health problems, e.g. 'blue-charged' water for a fever, 'green-charged' water as a tonic, or 'red-charged' water as a pick-me-up.

In recent years bottled water has been widely criticised by environmentalists; as Williams (2006) noted, the bottled water industry "is having a devastating effect on the environment because of the huge resources required to extract it, package it and ship it around the world." The fact is that producing bottled water is very energy-intensive, especially since many brands are shipped from distant locations; Evian comes from France, Fiji Water from Fiji, while Skinny Water originates in Croatia.

Research by the Pacific Institute, an environmental non-profit organisation, indicates that bottled waters use enormous amounts of energy in both production and shipping. For every bottle of water produced, "twice as much water is used in the production process. Thus, every litre sold represents three litres of water." In addition, each plastic bottle requires some 250 ml of petroleum products to produce; on this basis, Australia alone, with a relatively small population, in 2008 expended some 450 million litres of water and about 37 million

Skeptics SA

litres of petroleum products to produce some 150 million litres of bottled water.

The attraction of bottled waters over ordinary tap water appears to be primarily the image, a fact that is actively promoted in advertising by the producers of bottled water.

Unfortunately one cannot always be really sure of what one is getting when purchasing bottled water. It appears that in many large cities around the world it is common practice for street kids collect used bottled water containers, and refill them, usually from a tap in some dirty back-street, replace the caps using superglue to reattach the cap to the seal (so they appear to be unopened), and then sell them in the streets to unsuspecting tourists.

There appears to be an ironic element of truth in the fact that, when the name of Evian, one of the earliest brands of bottled water, is reversed, it describes the astuteness of those who buy bottled water for its purity and image. (Evian reversed is naïve.)

Laurie Eddie, May 2009

References

- 'A Triumph of Marketing', *Choice*, July 2005, pp 8 – 11
- Barrett, S, FTC Attacks "Stabilized Oxygen" Claims, <www.quackwatch.org/04ConsumerEducation/News/vitamino.html>
- Howcroft, R, on *The Gruen Transfer*, ABC-TV, 1 April 2009
- New Product Release: Athletic Oxygen Water Apollo₂, advertising brochure

Pacific Institute, Bottled water and energy: a fact sheet, <www.pacinst.org/topics/water_and_sustainability/bottled_water/bottled_water_and_energy.html>, 2007

Penn, J and Teller, *Bullshit*, television series. Series 1, episode 1-07, FengShui/Bottled Water, Showtime Networks Inc, 2003

Raso, J, *The Dictionary of Metaphysical Healthcare*, Amherst, New York: Prometheus Books, 1996

Spring Valley Smart Water, <www.springvalley.com.au/products/catalogue/smart_water>, 2009

Natural Resources Defense Council, *Summary Findings of NRDC's 1999 Bottled Water Report*, <www.nrdc.org/water/drinking/nbw.asp>, 1999

Wallop, H, 'Tap water beats bottles in taste test', *Daily Telegraph*, 17 December 2007

Williams, A, 'Bottled water is "killing" the earth', *The Advertiser*, Tuesday 14 February 2006, p 13

Skeptics SA

The South Australian branch of the Australian Skeptics

For further information on the Australian Skeptics and the journal, *the Skeptic*, contact:

Email: <info@skepticssa.org.au>

Web site: <www.skepticssa.org.au>