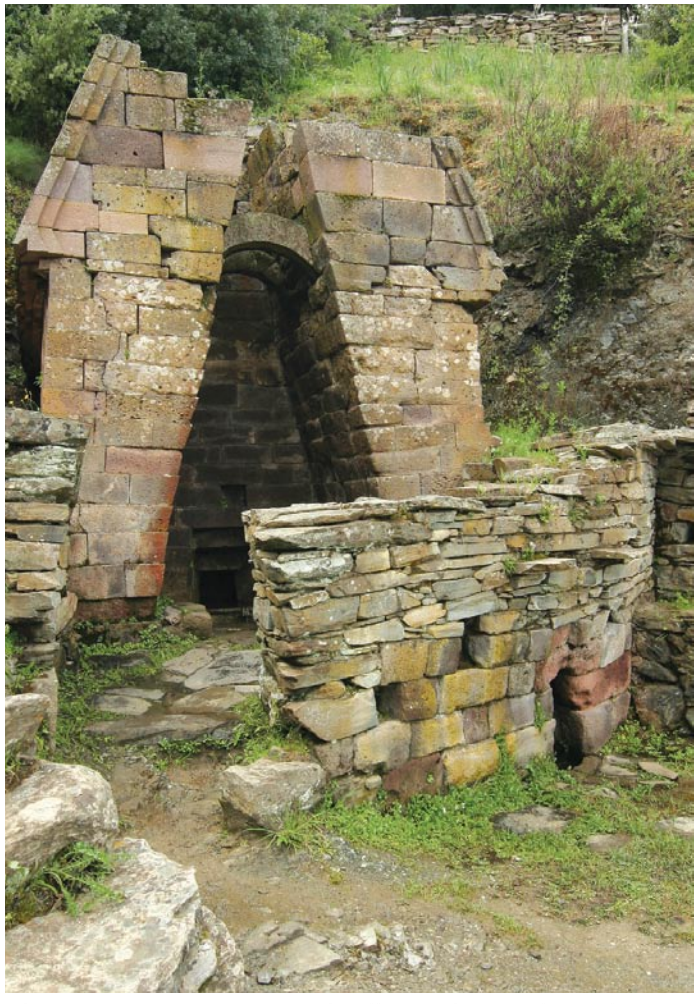
The Secret of the Supercentenarians

by Rick Sanders

How is it possible that there are pockets in the world where men and women live to be as old as the hills, and nobody has found out the secret? In some of those parts they don't even notice when you get to be a mere hundred, but they do throw a good party when you reach 110 (supercentenarian). Some serious health professionals have been trying to figure this out, but few seem to have gotten past the speculations of "yoghurt," "genetics," "fresh air," and "hard work."

As you'll see, I've uncovered more than enough clues for serious researchers to get to the bottom of this. And the clues were lying right in front of my eyes, just like Edgar Allan Poe's purloined letter.

21st Century had stimulated my interest in radiation hormesis a while back.[1] Then some health problems of people around me really got me going on this research.



The ancient Su Tempiesu sacred well in Sardinia: A clue to the area's large centenarian population?

Here's how I proceeded. Since in my ignorance I thought that all the famous "Shangri las" were in the mountains, my first hypothesis was the longevity was the result of hormesis which came with the high altitude, because the protective blanket of the atmosphere is much thinner at higher altitude, and there's a lot more background radiation than in low-lying coastal areas. This assumption is more than plausible: In the United States, for example, where these kinds of things are measured and recorded, studies show that cancer rates for people living along the coast are much higher than for those lucky folks who live in the mountains.

So I looked at a few of the relevant mountainous places where there were an unusually high proportion of centenarians (Sardinia, the Caucasus, Ecuador, among others), and that all seemed to fit. But there was one snag: At least one place, in Japan, had a number of centenarians much higher than the average, but it was located near sea-level.

An anomaly. So I started a little cross-gridding. Was there anything they had in common? It was obviously not genetics, nor diet. With such widely diverse groups, some ate mostly vegetables, while others, such as those in the Caucasus, ate a lot of animal fat.

Then I investigated what the tourist brochures said about these areas, reasoning that the locales would have to say something special about themselves in order to attract visitors. There, I thought I'd find the clue.

I went on an Internet search. One of the oldest men in the world lived in Japan, Yukichi Chuganji (March 23, 1889-Sept. 28, 2003), who passed away at 114 years and 189 days. Where did he live, and what is special about the place? Chuganji was a retired silkworm breeder who lived in the city of Ogori, Fukuoka prefecture, near the center of the island of Kyushu, Japan.

Why should tourists come to Fukuoka? It is virtually at sea level, but *it has a natural hot spring.*

One anomaly in Japan, not to be skipped over, is that 42 percent of Japan's centenarians live in Okinawa. Although Okinawa has no hot springs, it does have "sacred springs," and the background radiation of these springs is considered high enough by those who know how to measure it (the U.S. military), that they spent a lot of money (needlessly) on radon mitigation.

Other data showed a radiation level

1. For example, see "It's Time to Tell the Truth About the Health Benefits of Low-Dose Radiation," by Jim Muckerheide, *21st Century*, Summer 2000, http://www.21stcenturysciencetech.com/articles/nuclear.html

in Okinawa's water of 35.7 Bq/l. This means that it has high enough levels of radioactivity, so that if you were to drink the water all year, you would be roughly at the therapeutic levels of a two-week stay at the world-famous spas.

Next I checked out Hainan, China, which is 6,000 feet or so above sea level, where people lead healthy and long lives. Most interesting is the Nanshan Village at the foot of Nanshan Mountain in Sanya. The village has a population of more than 4,500 people, most of them working the land. Among the elderly, 10 are more than 100 years old, and 90 are more than 80.

There are more than 300 hot springs in the area, and the tourist brochures say that the Nantian Hot Spring is famous for its therapeutic action, because its water is said to contain trace elements.

More Hot Springs

And then I looked at the famous Caucasus Mountains: No pollution, hard work, and clean water? Is it the yoghurt? No! The oldest man there said he wouldn't touch the stuff. This was Mirzahan Movlamov, who turned 121 in 1998. It certainly is not ethnicity: the centenarians include Russians, Georgians, Armenians, and Turks; about 4,000 in the Caucasus, and 1,844 of them in Georgia.

Hot springs? I could not find out whether or not there were hot springs right where the centenarians were living. However, it's a pretty safe bet that the springs are there: The name of Georgia's capital, Tbilisi, means "hot springs," and by the 12th Century there were over 60 thermal baths in Tbilisi.

Another famous, and controversial, place is Vilcabamba, Ecuador. In 1969, Miguel Salvador, an Ecuadorian heart specialist, examined 338 men, women and children chosen at random in the town of Vilcabamba. He found that they were free not only of arteriosclerosis and heart disease, but also of cancer, diabetes, and degenerative diseases such as rheumatism, osteoporosis and Alzheimer's.

But what impressed Dr. Salvador most were the numbers of old people, and the fact that they were all extraordinarily fit. He found that one in six people in Vilcabamba was over 65, twice the U.S. average and five times that of the rest of Ecuador. A 1971 census confirmed Salvador's observations: Out of a total population of 819, nine were centenarians. In comparison, the United States at the time boasted only three centenarians per 100,000.

Some people attribute this to the special properties of the valley's hot springs. Vilcabamba means "Sacred Valley" in Quichua.

And now for the incurable romantic: A male/female ratio of centenarians of 1:1 exists in in Sardinia, Italy. Some 135 people per million, live to see their 100th birthday on Sardinia, while the Western average is near to 75. Centenarians are scattered around all of the island's 377 municipalities, but in the mountainous interior around the Nuoro province, the prevalence of centenarians is striking: 240 in every 1 million people. While in other countries there is an average of five women to one man who reach 100, in Sardinia overall, the female-male ratio is only two to one. And in the province of Nuoro, the number of men reaching 100 is equal to the number of women who do so.

Among its Methuselahs, Sardinia recorded Antonio Todde, the world's oldest man, who died less than 3 weeks away from his 113th birthday. Another supercentenarian, Giovanni Frau, died on June 20, 2003, at the age of 112.

Sardinia was famous for its hot springs in Roman times, many of which have fallen into decay, but there is at least one, about 10 miles from the town of Nuoro, the capital of the province of the same name, which is described for tourists as follows:

BENETUTTI Aurora Hot Spring Resort. Indicated in the treatment of gynecological disorders, respiratory tract ailments, forms of rheumatism and arthritis, skin ailments. Type of water: sulfur-bromine-sodium chloride-radioactive. Types of treatment: aerosol, mud baths, insufflation, ozone vapor, baths.

QED.

The Benefits of Low-Dose Radiation

Lest our readers think we believe in magic potions, there are many well documented studies about the benefits of low-dose radiation. If certain levels of radiation increase longevity, this will be due not only to the general hormetic benefits, but also to its decreasing the incidence of some of the main killer diseases, like cancer.

The following items are excerpted from *Underexposed: What If Radiation Is Actually Good for You?* by Ed Hiserodt (Little Rock, Ark.: Laissez Faire Books, 2005).

- A study done at the hot springs in Misasa, Japan, with high radon levels, compared lung cancer there and in another area where there is a spring with minimal waterborne radon. The lung cancer incidence for Misasa was 50 percent of that of the low level radon areas, and mortality from all kinds of cancers was 63 percent of that of the low level radon area.
- In laboratory studies of leukemia, mice exposed to between 20 cGy and 130 cGy of ionizing radiation, had a 20 to 30 percent drop in mortality from leukemia compared to controls.

Studies of workers in the nuclear industry show the same type of results.

- In Ontario, Canada, cancer mortality for nuclear plant workers was 80 percent lower than that of other members of the labor force.
- Los Alamos National Laboratory workers who had been exposed to 100 millirem, had an overall rate of cancer mortality that was only 58 percent that of controls. The only cancer mortality that exceeded the controls was brain cancer, which exceeded controls by 17 percent. Other cancer categories varied from 56 to 75 percent of that of the controls. No thyroid or bone cancer mortality was found in exposed persons.
- Another study of plutonium workers at the Rocky Flats plant showed that overall cancer mortality was lower than that of the general population: Deaths from cancer among 7,113 plutonium workers, between 1952 and 1979, were 64 percent of the number expected in the general population.

—Rick Sanders