

Weird Water

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Water may figure far more in our concerns in the 21st century. It is probably water that will most limit food production in the next century. UK water authorities are increasingly concerned about the effects of climate change and whether we'll have enough water for domestic and industrial uses while still leaving some for nature and landscape. Water-efficiency may become as important as energy-efficiency, and there will be novel systems for rainwater harvesting and grey-water recycling, not to mention innovative methods of water cleaning such as reed-beds and living machines.

That's just the practical end. We may also be about to witness a revolution in the way we imagine water, describe it or feel about it, and this new understanding may lead to practical technologies of quite different kinds. Conventional scientists like to keep things simple, so they start from a basic assumption that all water's properties derive from its basic molecular structure. Water does however have many puzzling qualities, and it is widely accepted that these might be explained by the linking-up of groups of molecules to form supra-molecular structures. There is a logical possibility, therefore, that one sample of pure water may be different from another, and that in a strange sense it can have memory. This is the basis of all manner of unorthodox theories and techniques ranging from the plausible and well-attested to the unverifiable and utterly dotty. What are we to think about these?

I first came across weird water almost thirty years ago when somebody gave me a copy of Theodore Schwenk's classic *Sensitive Chaos* - in hindsight an inspired title. Schwenk proposed that water wants to flow in certain patterns such as vortices which can be readily observed. These flow patterns are also found frozen in living organisms (such as horns and shells) and it was speculated that water in organisms may have a determining effect on some of these shapes. Well, possibly, I thought. Schwenk's work is the basis of Flow-Forms, shapes which are supposed to revitalize water when it flows through them. These were pioneered by the British sculptor John Wilkes, a disciple of Rudolph Steiner - as was Schwenk himself - and there are now half a dozen different schools of flow-form design and production, claiming that they have a very special effect on water. They are commonly installed with aquatic plant sewage treatment systems, and we have some in our reed-beds at the Centre for Alternative Technology. They definitely oxygenate the water efficiently as we have measured it, but how do they do it, and what else do they do? (We hope to find out in the next few years through a new research project in which two identical but entirely separate flow-form cascades can be compared, one acting as control while the flow-patterns in the other are systematically altered).

Some time after my encounter with Schwenk I came across Olof Alexandersson's *Living Water* which was dedicated to the work of Viktor Schauburger, an Austrian forester and inventor born at the end of the 19th century. Quite independently of Schwenk, Schauburger observed patterns in the flow of water which he successfully used (contrary to the prevailing wisdom) to speed the flow of logs along forestry flumes. Later he produced all sorts of designs for strange devices exploiting these pattern-preferences of water, including a flying-machine. As so often with these Fortean things Schauburger came into strong conflict with orthodox opinion, and became progressively enfolded in a complex web of controversy,

vested interest and paranoia which makes it very difficult to tease out what really happened. An Australian architect, Callum Coates, has devoted many years of his life to explaining and developing Schauberger's ideas, which he reports in his book *Living Energies*. This is full of suggestive observations and insights, such as the possible effect of tiny differences of temperature giving rise to a complex laminar structure in flowing water. Hmmm, yes... On the other hand, anyone coming from the conventional scientific tradition will find it totally exasperating. Most of the time I just wanted to throw it through the window. Warily, I must acknowledge there are grounds for further investigation, but I wish someone a bit more ... grounded had taken up the cudgels on Schauberger's behalf.

Schwenk and Schauberger were primarily interested in the subtle properties of moving water - what we might call weird physics. There's another tradition we might call weird chemistry, of which homoeopathy is the most famous example. The latest development in this tradition comes from yet another Austrian, Johan Grander, who has a truly magical approach to water, and means of generating magical water too. He can also provide you with devices for making it yourself, on more or less any scale - for a stiffish price, although he does not explain exactly how it is done. The claimed properties of this water are too numerous to list, but beneficial effects are reported by families, doctors, bakers, café proprietors, car manufacturers, railway engine drivers, nurserymen, laundries and so on. Story after story is retailed in *On the Track of Water's Secret* and its sister video. What are we to make of it? Should we take these things seriously? Would that be foolishly gullible? Or do we have to plug on, trying to keep an open mind, endlessly separating the wheat from the chaff? If we don't, who will? (Once again, at CAT we are hoping to obtain one of the *wasserbelebung* (water-revitalizing) units soon so we can carry out tests on it, and we would be very pleased to hear from any SMN members who have any experience with Grander water or the devices marketed by Grander.

Perhaps the best-established weird-water tradition is homoeopathy. The work of the immunologist Jacques Benveniste in Paris seemed to offer an objective system for exploring homoeopathic phenomena, not on human patients but in quantifiable effects on living cells observable under a microscope. This is a fascinating story. I don't need to explain the system in detail, but Benveniste's laboratory carried out almost 200 separate series of studies on various homoeopathic effects, to the increasing disquiet of the scientific establishment, since homoeopathy and conventional chemistry are simply incompatible; they cannot both be right, at least in their present form. This attracted the attention of a CNRS physicist and sociologist of science, Michel Schiff, who wanted to be there when the shit hit the fan so he might, as it were, record the shower of novel particles that would be generated by the collision. He joined Benveniste's lab. In conventional science it can seriously damage your cred even to take something like this seriously, much less actually to investigate it. So Benveniste and his whole team were subject to a gathering campaign of derision and threat. Schiff, on the other hand, was in a charmed space, able to do what he liked without risk to his reputation because he was looking at the phenomenon of scientific dissidence, not the homoeopathic effects per se. Nevertheless during the course of his stay in the lab he became convinced that the effects observed by Benveniste's team were real. This put him in the extraordinary position of adopting a critical attitude to the scientific establishment as it ponderously and sometimes comically moved to discredit Benveniste and turn him into a non-person. Yet Schiff keeps steady under fire, and remains true to the highest values of science. Of all the water books I have read in the last few years, Schiff's *The Memory of Water* stands out as a small masterpiece of integrity and lucidity. I regret to say that

conventional science does not come well out of the affair: quite apart from the bullying and censorship, not a single fellow-scientist stood up in solidarity with Benveniste; they all ran for cover and kept their mouths shut. Shame on us all! The fact that Schiff's book is published by Thorsons also speaks volumes: obviously Blackwells or the OUP wouldn't touch it for fear of offending the high priests. Nobody in the straight science world would ever come across a Thorsons book, far less read something with the sub-title 'Homoeopathy and the Battle of Ideas in the New Science'. This is a pity, although hardly surprising. At this moment the book has a unique Schrödinger's Cat quality: if Beneveniste's work is ultimately vindicated it will be rediscovered by the scientific community, revered as a classic and held up as a model of courage and objectivity. If not, the book will remain in obscurity, as I suspect will most of the other books reviewed here.