

# Interview with Dr Steve Harris, Science Shops Wales



*Steve Harris is a Senior Lecturer in Science Communication at the University of Glamorgan, where he is responsible for managing Science Shops Wales, an innovative science-society interaction organisation funded by the Higher Education Funding Council of Wales. With a BSc in computing and a PhD in human-computer interaction, Steve's early research interests focused on the intersection between science, computers, communication and learning. His post-graduate training in cybernetics and activity theory, a holistic approach to systems analysis and design developed in Russian psychology and ergonomics, led to a growing interest in General Systems Theory and latterly, systems ecology, ecological economics and Earth Systems Science. Steve is a member of the International Society for Cultural and Activity Research, the British Computer Society, the BA, the British Society for the History of Science, the Institute of Welsh Affairs, and Scientists for Global Responsibility.*

*Science Shops Wales together with Cynnal Cymru/Sustain Wales and the Sustainability College of the Valleys are organising a conference on "A Prosperous Way Down? Exploring Green Economic Futures for Wales". The conference is to be held on Wednesday 28th January 2009 at City Hall, Cardiff. Contact [thornto@glam.ac.uk](mailto:thornto@glam.ac.uk) (01443 654526) for further information.*

## **What is Science Shops Wales, and why do you think its work is important?**

Science Shops Wales is an attempt to open up our Higher Education Institutions to civil society in Wales. With the backing of the Higher Education Funding Council of Wales, we're trying to use the resources and expertise of Welsh Universities to assist community organisations in their efforts

to generate new scientific and technical knowledge, the knowledge they need to contribute toward building an equitable and sustainable Wales. So we have University students, lecturers and contract researchers out in the community, working alongside citizen groups to try to find answers to knowledge-based problems they have identified for themselves. And we're doing it for free.

Science Shops Wales provides a very real example of putting these vast, state-funded institutions – the Universities – at the service of the people. It is a demonstration of the role enlightened Universities could play in shaping our common future, a role that looks beyond simply serving the needs and wishes of governments, industry and the military. By bridging the gap between science and society, between academia and citizens, we're hopefully making a contribution toward developing a genuinely informed, participatory democracy here in Wales.

## **How does the 'green mission' fit with Science Shops' wider objectives?**

The name "Science Shop" comes from the origins of what is now a huge international movement in community-based research, a movement which originated in the radical left-wing politics of the 1970s. The first Science Shops were established by socially-engaged university students and faculty in the Netherlands, Scandinavia and the United States, and right from the start they had a strong focus on supporting citizens groups and NGOs campaigning for environmental and social justice. So when we came to set up a network of Science Shops in Wales in 2006, the big question was how can we continue, and stay true to, this tradition in the context of a tiny, newly devolved but culturally unique nation with a statutory commitment to sustainable development? And as soon as you begin to try to sketch out an answer to that question it becomes clear that, although the "green mission" of course has to be at the heart of everything we do, it's so much more than that. Because we can't adequately respond to the challenges of climate change, resource depletion and biodiversity loss without confronting the systemic causes of those problems, causes which also result in human poverty, social exclusion, illness and so forth. So for me, our mission is about environmental, social *and* cognitive justice. It's about supporting citizens who are struggling not just to protect and preserve the environment, not just to get fair shares for everyone, but also to have the right to have their knowledge, their experience, their learning and culture counted as valid, legitimate and useful.

## **Who are the activities of Science Shops Wales aimed at?**

Welsh civil society, in the broadest sense. NGOs and community organisations from the smallest to the

biggest in Wales, from angling clubs to Transition Town groups, residents associations to large not-for-profits. Everybody and anybody who isn't either business or the state.

**What is your proudest achievement in the project so far?**

Well, there's so much. I'm really proud of the work we've carried out doing participatory community biodiversity audits with communities in the Valleys. It's fantastic to see people of all ages working alongside scientists, conservationists and wildlife experts, learning about scientific methods while at the same time making that deeper reconnection with the natural world that we all so badly need. I'm really proud of the leaflets, exhibitions and workshops we've produced to help community groups understand, and face up to, the challenges of climate change and peak oil. I'm also really proud of our collaborations with great partners like Cynnal Cymru, The UK Climate Impacts Programme, and the National Museum of Wales. There are dozens of other examples I could give you, but it's perhaps simpler to just say that I'm so pleased to have been able to bring together, and keep together a fantastic, multidisciplinary team of talented and committed people – the people who actually do the real work on these projects, while I spend my time pontificating and giving interviews!

**What do you hope to gain from the January conference?**

Personally? Knowledge, courage, and moral support. I see the work of building, linking and strengthening networks of committed people across Wales as absolutely central to making the kind of whole-systems changes we need to bring about if we're to have any hope of dealing with the challenges that face us. In terms of wider outcomes, I'd like the conference to help make it increasingly possible for thinking people across Wales to openly question the economic growth paradigm without being regarded by their peers as dangerous lunatics. At the moment political and business leaders in Wales are suffering from a form of collective schizophrenia, trying to hang on to the old mantras about the benefits of economic growth based on steadily increasing consumer demand in the face of an overwhelming flood of scientific evidence to the contrary. No matter how much we may wish it otherwise, our science tells us very clearly that right now there simply is no way we can tackle climate change or attempt to build a more sustainable Wales while continuing to pursue economic policies that favour using more energy to build more roads and runways so we can fly and truck in more of our most basic

goods and foodstuffs from the other side of the globe. This kind of globalised "business as usual" is simply not an option, full stop. To continue to try to convince ourselves otherwise is a form of collective suicide, the worst possible example of the triumph of superstition over science. I hope the conference will encourage those who lead us to acknowledge these facts and face up to the fundamental contradictions in their current policies.

**Do you see the current downturn as an opportunity or a challenge for you?**

I think it's an opportunity. It's really focusing ordinary people's attention on the whole house-of-cards, smoke-and-mirrors nature of our current economic arrangements. I think all over Wales people are waking up to the reality that we can't go on living on credit forever – whether in the form of the fictional money invented by banks for their own benefit or the very real debt we owe to the environment which supports all our lives and livelihoods. Everywhere I go I meet more and more people who understand the extreme urgency of this Earth system crisis we're all facing, and who are ready to put their efforts into building the kind of sustainable, equitable and peaceful Wales – and world – so many of us would like to see. In this country we have a truly inspiring tradition of collective action for social justice, from the Chartists onwards, and a wonderfully strong and vibrant culture which has always supported people through hard economic times.

At the moment, I really feel that we have the opportunity for radical, whole-system change in Wales, and the current economic downturn is just one more factor driving us toward that change.

**More generally how do you see our global future, and Wales's?**

Everything I understand about energetics and the behaviour of complex systems tells me that the transition to a society based on much lower energy use is absolutely inevitable. Everything I understand about global warming and the Earth System crisis tells me that this transition is also absolutely desirable. So for me it's a given that the future, globally and in Wales, has to be a low-energy, low-carbon one. The big question is how we get there, how we manage the energy descent. It can be peaceful, graceful – joyful even – if we approach it wisely. Alternatively, it can be catastrophic, violent, traumatic, tragic. I can't even begin to predict which of the multiple possible near-future scenarios is most likely – I'm too busy working as hard as I can to try to ensure that the pathway we walk along

together is as wise and compassionate, as rooted in sound science, as possible.

**Do you think Wales could be a leader in the pursuit of sustainable economic development?**

Yes, absolutely, for all the reasons I've already mentioned and many more. For example we have just fantastic resources available to us for renewable energy generation, we can really go for it in that arena. But in order to lead others, we first have to sort out our own affairs. For me this means explicitly repudiating, once and for all, the mythology that links private ownership, economic growth and the increasing consumption of energy and commodity goods to human happiness and social stability. Above all, we need to develop an entirely new sense of ourselves in relation to nature, one in which we not only value the services our ecosystems provide us with, but recognise and celebrate that we are part of, not in any way apart from, those ecosystems, the laws that govern them, and the patterns they follow. We have to put our scientific understanding of the behaviour of complex systems at the heart of policy-making. We cannot continue to rely on advice from economists whose theories wilfully ignore our total dependence on the Earth's ecosystems, and discount or downplay our catastrophic, destructive impact on those ecosystems. We simply can't continue to put the vested interests of the vanishingly small minority who benefit from our current economic arrangements ahead of the common good, ahead of the welfare of future generations and the planet itself.

If Wales is truly to be a leader in the 21<sup>st</sup> Century, we need to develop the confidence to align ourselves with those nations and movements around the world that are trying to build a post-carbon, post-capitalist future. After all, we were one of the first nations into the fossil-fuel frenzy, and one of the first to come out the other side, so perhaps we have a special responsibility in this regard. Now we find ourselves at least nominally in the lead again, with an elected government committed to sustainable development, it's up to all of us to make sure that commitment turns into a reality. And that will demand a lot of courage, a lot of commitment, a lot of great leadership from individuals at all levels of Welsh society.

**Are you an optimist?**

Yes, very much so. As the saying goes, the situation is far too serious for pessimism. I deeply believe in the creative power of human beings, and I know the so-called "impossible" can happen, because I've seen it in my own lifetime and with my own eyes. Whoever would have believed that we could walk

on the moon? That the Berlin Wall could fall? That we could get a worldwide agreement on fixing the ozone hole, or that a black man could become President of the United States? Or? We have the science, we have some the wisdom, and we have most of the technical means, to create a sustainable future for us all. All we have to do is get together and use it in a sensible and

humane way. I'm such an optimist, I even believe that economics might one day develop into a serious science that will help us plan and manage human affairs within environmental limits...

**Can we succeed in paying the world back?**

We *are* the world, and as such we don't really have anything to pay back, or

anyone to pay it back to. When we really begin to embed our knowledge of that total interconnectedness into everything we do, then perhaps we'll begin to develop the kind of collective and responsible culture we need if we are to live sustainably and harmoniously on the Earth. I certainly hope so.

Steve Harris. Thank you very much.