



## IN HERACLEITOS' FOOTSTEPS EÖRS SZATHMÁRY

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Born in 1959 in Budapest, Hungary. 1987 Ph.D., Faculty of Science, Eötvös Loránd University, Budapest. 1987–94 Research Fellow of the Hungarian Academy of Sciences, Eötvös Loránd University, Budapest. 1991/92 Research Fellow, Laboratory of Mathematical Biology, MRC National Institute for Medical Research, London. 1992/93 Fellow at the Wissenschaftskolleg zu Berlin. 1994 Guest Professor, Institute of Zoology, University of Zurich. 1994/95 Senior Fellow, Collegium Budapest. 1995– Permanent Fellow, Collegium Budapest. 1995– Professor, Department of Plant Taxonomy and Ecology, Eötvös Loránd University, Budapest. Publications: *The Origins of Life: from the Birth of Life to the Origin of Language*, with John Maynard Smith. Oxford and New York, 2000. *The Major Transitions in Evolution*. Oxford and New York, 1997. – Address: Collegium Budapest, Szentháromság utca 2, 1014 Budapest, Hungary.

It was over ten years ago that I left the Wissenschaftskolleg after an incredibly pleasant and productive year. It felt like being expelled from Paradise. I have followed my scientific and personal *Tao* in other places, such as Collegium Budapest, which is also an Institute for Advanced Study (incidentally, it would not exist without the dedication of Wolf Lepenies and Joachim Nettelbeck).

This year I have had the privilege to be a Guest of the Rector and to return to Paradise. Did I step in the same river twice? Yes and no. Yes, because once again I enjoyed that well-oiled machinery of a thinktank for intellectuals, partly run by the very same people who helped us a decade ago. Yes, because I was working on some questions of theoretical biology, taking advantage of the excellent library service. No, because several things have

changed at the Wiko, and presumably I have changed even more. Ten years ago I was still a bit of a beginner; now I am a resigned head of a department, to mention but one thing (those years count twice). No, because ten years ago there was only one real theoretical biologist beside me (Peter Hammerstein, now President of the Fellow Club); now the Wiko teams with excellent biologists.

Although I was distracted by a number of external events (including a Dahlem Conference and the board meeting of the Society in Science Foundation in Zurich) I was able to accomplish what I had planned. First and foremost, I have completed a paper for *Nature Reviews Genetics* on the question why we have four letters in the genetic alphabet (this was the topic of my rather dense seminar, too). The comments by the biologists after my seminar were invaluable to this end. I began working on a model of Gaia, i.e., a mechanism for planetary homeostasis, inspired by the Dahlem meeting that I attended on Earth Sustainability. It may just be possible to find a mechanism whereby selection on local interactions may favor planetary sustainability in the long run.

I have given lectures at a Dahlem Conference, at the University of Bochum, and a seminar to students at the Innovationskolleg Theoretische Biologie at the Humboldt University. I had a special appearance at the Potsdam Institute for Climate Impact Research, giving a kind of public lecture about the origin of language. As a host, I also enjoyed the visit of Professor von Kiedrowski from Bochum, who gave an exciting *ad hoc* seminar on replicable nanostructures.

As a late-arriving short-term guest, your social dynamics are very different from those of the core Fellows: I chose to interact with a few people so that I could accomplish what I planned. I have tremendously enjoyed discussions with some of the biologists and with John Hyman. Meeting some of my fellow colleagues from the year 2002–2003 on the occasion of the *Altfellow-Treffen* was a special delight.

Let me finally mention one other type of activity as a sign of our time. I participated in a proposal for an integrated project (research carried out by an international consortium of people and institutes) within the Sixth Framework Programme of the EU. Incidentally, another guest of the Rector, Stefano Nolfi, was also a key member in this preparation. This took a fair bit of time to get straight, including a “hearing” in Brussels. I am happy to report that the proposal has been accepted with flying marks and serious work can start in November, using evolutionary robotics to explore the conditions for the origin of various forms of communication.

All in all, I am glad to be one of the mortals to have had a chance to return to the Wiko.