

## VALUES AND ENVIRONMENT

*Merrill Findlay*

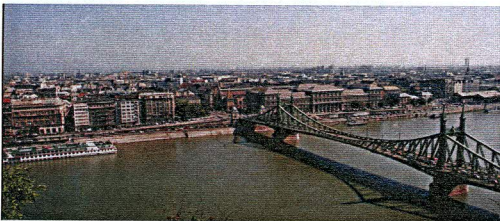
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### 1. Back-casting wild otters and sturgeon into the Danube river

An informal Ecovercity workshop with Merrill Findlay, to explore the social transformations required to rehabilitate the Danube River, as seen from the University, and re-introduce wild otters and sturgeon, along with all the other native species that once thrived in this great river and its tributaries.



The canalized Danube River as it flows under Liberty Bridge and past the Budapest University of Economic Sciences and Public Administration, which is just visible on the far right of the bridge.

*Photo from Gellert Hill by Merrill Findlay, September 2001*

The fossil record reveals that Planet Earth has suffered at least five mass extinction events since life emerged. At the end of the Permian period 250 million years ago, for example, some scientists suggest that an estimated 90% of all species disappeared. Fifty million years later, between the Triassic and Jurassic periods, mammal-like reptiles disappeared from what we now call the super-continent Pangea, a catastrophe that created the evolutionary space for dinosaurs to evolve. Sixty five million years ago, at the end of the Cretaceous, another extinction event wiped out an estimated 40-50% of all biological diversity – including the dinosaurs. Some scientists suggest this one was caused by a direct hit by a giant piece of space debris: an asteroid, meteor or comet. Earth's biodiversity took 10 million years to recover, but in that time many ancestors of the species we are now familiar with, including mammals, had time to evolve.

Biologists now claim that we are in the midst of another mass extinction crisis. This time the culprit is not an asteroid, meteor or comet, but *Us*. Does it matter

that Earth might lose up to two thirds of all species in the 21<sup>st</sup> century, because of the global impacts of our own ‘lifestyle choices’? If so, why does it matter? And what can we do to ensure that these grim predictions are never fulfilled?

This workshop will allow us to begin to explore these extraordinarily complex issues about the future of the planet, from a very local perspective.

## 2. The past

Look out the window to the Danube River, as it flows under Budapest's Freedom Bridge and past the university. See it not as it is today, but as it was before your forebears polluted, dammed, dredged, over-fished, canalized and stripped it of its protective forests and marshlands, which, for millennia, had been its natural purification system, and home to countless species of birds and butterflies, dragonflies and frogs. Look, just there in the shadows: can you see the otters (*Lutra lutra*) bustling about in the water, floating on their backs to delicately eat the small fish they've caught in this still-pristine river of the past? Perhaps the fish they're enjoying are young sturgeon (*Acipenseridae*) making their first migration from the fresh waters of the Danube's many tributaries to the saltwater of the Black Sea, where they will grow to maturity, before making the return migration back up the river to spawn in the very same stream in which they hatched.



Once-upon-a-time, Hungarians, like all other peoples, lived in much more ecologically sustainable ways. A rural family's cottage, made of timber, mud and thatch, slowly ‘melting’ back into the Danube and Tisza floodplain, in Kiskunság National Park, on Hungary's Great Plain.

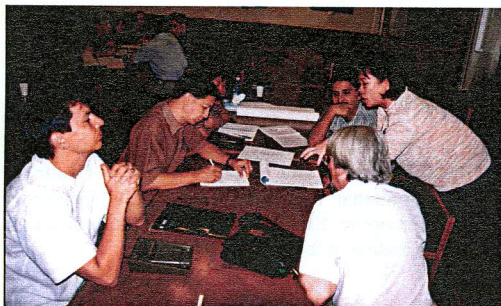
*Photo by Merrill Findlay, September 2001*

## 3. The present

Now look outside and see the present, a great city that is strangling the river from both sides. The Common sturgeon, *Acipenser sturio*, once endemic to all major rivers and coastal waters of Europe, no longer migrates upstream, indeed it is perilously close to extinction, and can only be found, in very small numbers, in one or two tributaries and estuaries where the ecosystems on which it depends



remain relatively intact. The otter is also absent. Its only remaining habitats are in the most isolated reaches of the Tisza and Szamos rivers. How could these two key species survive in the damaged river you see through the window, a river in which the complex web of river-life the otter were once part of has been almost totally destroyed?



Participants at the Budapest workshop, all members of the World Futures Studies Federation. Budapest, August 2001.

*Photo by Merrill Findlay, August 2001*

#### **4. But it doesn't have to be this way**

Look out the window again, but this time at a possible future, in which both wild sturgeons and wild otters have returned to Budapest. What does the Danube look like now? How have people achieved this miracle? What have people done in the years between the present and this imagined future? What values and beliefs might have motivated these changes in behaviour? How might the citizens of Budapest, indeed all Hungarians, be living their day-to-day lives along this beautiful re-claimed, re-habilitated Danube? How would they be designing and managing their urban and non-urban spaces in this imagined future? How would they be managing their 'waste'? (Indeed would they be still even producing 'waste'?) How would they be manufacturing all the goods they consume? What energy sources would they be exploiting? What would they be eating, and how would they be producing their food? What social, economic and environmental policies would the various layers of government be implementing to ensure the on-going well-being of the wild sturgeons and otters, and all the other species that are part of the river community, including the human inhabitants of the city?

#### **5. An exercise in back-casting**

And how long might it take for these changes to be instituted? Five, ten, fifteen years? Or maybe fifty? Instead of forecasting what might happen in the future, try back-casting. State, quite categorically, that this is the future you want within your own lifetime, or the lifetime of your children: a thriving city, in which wild otters and sturgeon (along with all the other species that are part of a healthy

river's biological communities) can co-exist with us humans. Then think about what needs to be done to achieve this goal.

Defining the future in this way, analysing what might be necessary to achieve it, proposing a clear time line and breaking the huge task into small, but achievable steps back from the Yet-to-be to Now, is called back-casting. And this is one of Futures Studies' most useful tools.



Budapest Futures Course 2001. Erzsébet Nováky, director of the Futures Studies Centre, who facilitated this event at Budapest University of Economic Sciences and Public Administration, is standing at the far right.

*Photo by Merrill Findlay, August 2001*

The issues involved in effecting the kind of changes I've raised are extraordinarily complex and inter-related. Just take water quality, for example. I have been told that up to 40-60% of Hungary's sewage is currently being discharged into various freshwater rivers and streams. But people concerned about rehabilitating these biological communities now talk about zero emissions into water systems. Just addressing this issue alone over the next few decades is, in itself, a profound challenge, not just for Hungary, but for all the countries within the Danube's huge catchment area.

And how about all the other issues associated with how we live our lives, and the impacts we have on other species? As I have already suggested, all our manufacturing processes would need to change, most of the ways we produce food and energy, our consumption patterns, our waste disposal, our accounting systems, our engineering and construction industries, our architecture and design, our transport systems, our education systems. Indeed to change the view of the Danube outside so that it includes wild otters and sturgeon requires a radical re-working of everything we think and do.

Unless we undertake such a radical re-imagining, and follow-up our new thinking with carefully planned and executed actions, I'm afraid the otter and sturgeon may not survive in the wild. They will be the victims, not of an asteroid or comet, but of our all-too-human capacity to destroy the things we most need and love. Would it matter if they become extinct?



Fortunately there are many people who believe it *would* matter. These brave people have already made the conceptual leap to imagine this new kind of world, a world in which we humans co-exist with wild sturgeon and otters ... and they are now working to make their imagined future real. Some of the leaders in this conceptual revolution are associated with the Danube River Restoration Plan, the Carpathian Ecoregion Initiative, and other environmental projects, for example. Many may also consider themselves part of the emerging civil society movement, which is questioning the possible futures being presented to us as 'inevitable' by giant multinational corporations and their captive governments ... because the future is about values, and is created, in part, by the choices we each make in the present. While no particular future is inevitable, I'm sure you'll agree that some possible futures are far more preferable than others – even though their achievement requires radical, even almost unimaginable social transformation!

So let's break up into small groups to imagine a future with otters and sturgeon in the river outside. Let's think about what would be required to achieve that future, and how long it might take – and then backcast. Define all those small achievable steps along the way to fulfilling this goal. And when you've finished this exercise, go and do something practical about making your imagined future real!



Final celebrations in a Budapest bar, at the end of the Futures Studies Course. Thanks to Tamás Gáspár, seated front right, for his effort and support. After this event, many participants travelled to Romania, for the World Futures Studies Federation's 17<sup>th</sup> international conference.

*Photo by Merrill Findlay, August 2001*

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With special thanks to Professor Dr. Erzsébet Nováky and Dr. Tamás Gáspár of the Futures Studies Centre, Budapest University of Economic Sciences and Public Administration, and to the World Futures Studies Federation, for making Merrill's participation in this event possible.