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Embrace the Collapse

Author Thomas Homer-Dixon on the coming crisis, new opportunities and more. A Tyee interview (part one).

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Thomas Homer-Dixon says there's hope. Not that global warming isn't upon us, or that terrorists won't explode a nuclear device in the near future, or that the growing gap between rich and poor won't result in deeply destructive conflict, or that our social, political and economic systems aren't deeply vulnerable to collapse.

No, not that kind of hope. That's actually called denial. The question is, what might we do when one or all of those events -- which Homer-Dixon calls "moments of contingency" -- shake us out of our collective inertia? What might we do to ensure that, ahem, more is very much less.

In *The Upside of Down: Catastrophe, Creativity, and the Renewal of Civilization*, that's the central question. Can we turn failure into some kind of success? Homer-Dixon thinks we can, and his prescription isn't very complicated. One thing we must do, he says, is develop a "prospective mind," by which he means think ahead, and plan to take advantage when a crisis creates an opportunity.

All of which might seem crushingly obvious, except that we usually don't bother. We are disastrously incapable of taking a very long view, personally or institutionally. Politics and business are in many ways biased against our long-term future, he argues, raising another point that's so apparent it might seem facile coming from the distinguished director of the University of Toronto's Trudeau Centre for Peace and Conflict Studies and the winner of a Governor-General's Award for his book *The Ingenuity Gap*.

However, the details of *The Upside of Down* -- an important and sometimes hopeful book -- offer a pretty compelling picture of human ecology in the broadest imaginable sense. Homer-Dixon begins in Rome, trying to figure out what the Romans did. How did they get so rich, and extend their influence so far? And why did their society collapse so completely, with such devastating consequences?

The short answer is energy. The things accomplished when energy was cheap were no longer possible when it became expensive, or more particularly when the "energy return on investment" ratio became low. Large cities, he points out, are particularly vulnerable.

Uh oh. And while Homer-Dixon has real faith in the human capacity for innovation, and in the capacity of effectively regulated markets to solve our problems, he believes our political, economic and social systems are becoming increasingly rigid, resulting in "tectonic stresses." Complex human systems, he argues rather compellingly, citing Joe Tainter's 1988 book *The Collapse of Complex Societies*, are like natural systems -- they reach a point of diminishing return, and upheaval soon follows. When the tectonic stresses release to shake up the most complex human systems this world has ever seen, the earthquake is likely to be a whopper.

Buzz Holling's 'panarchy'

Homer-Dixon devotes a large section of the book to the work of former UBC professor and ecology guru Buzz Holling, who has looked at what allows complex natural systems to remain resilient. At the core of Holling's "panarchy theory" is the simple idea that complex systems grow, become brittle, collapse and then renew themselves. If the growth cycle goes on too long, however, the potential increases for "deep collapse," which can pretty much cut out that heartwarming renewal stage.

It's the human tendency to try and keep everything as it is that has Holling and Homer-Dixon worried. If we don't plan for the occasional collapse, if we don't plan for real change, we're going to pay and pay and pay. Homer-Dixon wants our "prospective mind" to prepare us to take advantage of the opportunities for renewal that inevitable crises create. He calls such renewal "catagenesis."

It's not a terribly complex analysis or prescription, of course, except until we actually try and act on it. But the systemic long view also points to the source of solutions, which lie in the architecture of our systems. We won't solve our problems one by one by shouting about them. We'll solve them by reducing existing stresses, creating more resilient systems, and planning to ensure that good things emerge from bad events.

The Tyee spoke to Homer-Dixon last week at the Wedgewood Hotel, where he elaborated on the book, emphasized the importance of wise land-use, and talked about his own next big thing -- experiments in open-source democracy. Here is what he had to say...

On the lie that governments shouldn't intervene in markets:

"It's a dogma that's violated all the time in practice. George Bush, in terms of protecting certain interests, has been an incredibly interventionist president in economic policy. Nonetheless the dogma ingrains a certain bias in public policy, against the state, against the creative role of the state. When you think back half a century, in the 1950s and '60s, people regarded government as a much more benign force in helping people lead prosperous lives and creating a human and just society.

"Especially in the United States, the government has gone from being seen as benign to fundamentally pernicious. And so the default becomes, 'Oh yeah, the state has to do certain things, but we do it reluctantly and we do it badly.' The skilled people you want within government leave because they are regarded basically as parasites to a large extent. You don't have an ethic of creativity and accomplishment in the public service. You lose your best people. It doesn't become a noble thing to spend your life doing it. The best and the brightest don't go into politics or the civil service. That's an astonishing loss."

On the lie that marketplace competition is the problem:

"Markets are better when governments are involved in creating the institutional environment for markets. Governments work better when markets thrive, because governments extract the resources to do the things they need to do from markets."

Thomas Homer-Dixon's prescription to save the world:

"First, reduce the tectonic stresses. Second, develop a prospective mind. Third, develop as much resilience in our systems to prevent catastrophic breakdown. And fourth, get ready to exploit crises and breakdowns to the best advantage possible. In the first and the third, the state can play a big role.

“Government can play an important role in reducing the effect of these tectonic stresses, and they’re dropping the ball right now. We’ve got to reduce as much as possible our carbon output into the atmosphere, and we’ve got to start making major investments in new energy technologies. We need to think about, and government can take the lead on this, how we are going to reorganize our societies to make them less energy-intensive. That means changing zoning regulations for suburban areas so we don’t swallow up the countryside, because they’re unbelievably wasteful, these spread-out suburban developments. We need an incentive structure for entrepreneurship, cap-and-trade arrangements for carbon emissions, everything to create a creative environment within the marketplace for decentralized problem-solving. We need to scavenge every kilogram of carbon, to keep it from going into the atmosphere. Government can play a huge role there.

“We’ve got to create, at the international level, the architecture for solving these problems globally. We need to engage, in really creative ways, the national government in thinking about what the new world financial architecture is going to look like. How are we going to make this transition to new kinds of energy technologies at the level of the planet, not just individual countries? Canada could specialize in carbon sequestration technology and coal-gasification technology. China might specialize in, say, small cars for highly dense urban areas. Because that’s what China needs. There’s comparative advantage around the world, if leaders are thinking about creating the architecture as a whole.”

What governments can’t do:

“I think government does play a role, but I talk about individuals too. I emphasize the importance of individual action and the importance of developing communities of value and communities of planning across large numbers of people.”

What George W. Bush didn’t do:

“I think he will be recognized as one of the worst presidents the United States has ever had. He’s going to leave the country with an absolutely shattered foreign policy, with radically diminished status in the world, and probably bankrupt. It’s completely contrary to his ideology. It turns out that the Liberals in Canada and the Democrats in the United States are the ones that are fiscally responsible.

“This is something the general public doesn’t seem to understand. It was the Liberals -- and to be fair, it was Brian Mulroney, he brought in the GST, which stabilized the fiscal situation dramatically -- who ended up really capping federal spending. It’s kind of a Nixon goes to China sort of thing. The Democrats are better able to take on sometimes special constituencies within the domestic arena because people think they’re going to do it in the most humane way.”

On what should have happened in the “moment of contingency” after 9-11:

“There was this opportunity to shift the direction of American society. There was this outpouring of not just anger but a desire to make a change. Everybody was donating blood. The blood was useless, but they wanted to do something. Nobody was going to forget people throwing themselves out of buildings, the towers collapsing. People wanted to contribute personally to assuaging that trauma.

“George Bush could have said, ‘We have this problem, which is dependence on foreign oil.’ Right at the moment, we are importing 66 per cent of American petroleum. We are pouring huge amounts of money into the coffers of governments that are, if not expressing direct animosity toward the United States, supporting governments that do oppose the United States. In Saudi Arabia, there is the radicalization of young people within the Islamic seminaries. The Wahhabist, fundamentalist, Islamic ideology is being funded by dollars made by exporting oil.

“So, given that, [the U.S. could have said] ‘Let’s cut our imports of foreign oil by 50 per cent in the next 10 years.’ It would have been a real challenge, because America’s going in the other direction. But America is the most technologically entrepreneurial society in world history. If it had been able to achieve that, it would be in a position to dominate the economic landscape with those technologies for decades. It was an incredible opportunity. And the story could have been told in five minutes.”

On the need to foster local food security:

“I think it’s pretty important. I say to my audiences in Ontario that the largest patch of Class 1 agricultural land in the entire country is in downtown Toronto, under pavement, under Bay Street. Because that’s the first place you establish settlements. In Ontario, our food system depends upon steady streams of tractor-trailers bringing fresh vegetables from Florida and California. As we pave over our agricultural land and build subdivisions, we are progressively losing our food-system resilience.

“I don’t think we should have the capacity to produce all our food, or even the majority of it, but our communities need to have the capacity to produce more of what we need locally. That has to be a matter of government concern. What happens if the Canadian border is shut, and not just for a couple of days as it was after 9-11, but for an extended period of time? It’s conceivable if there were major attacks in the United States, that would happen. What kind of capacity do we have to maintain an agricultural system in the eventuality of much higher energy prices, say five times higher than they are right now?

“We’re making assumptions that the parameters in which we live are going to stay roughly the same, in terms of energy prices, in terms of political and social stability, and we have to spend some time thinking about what would happen if the world were radically different. Food security is part of that. A resilient food production system is networked, but not tightly networked. If it’s tightly networked and highly specialized, then it’s vulnerable to cascading failures. If everybody’s producing entirely their own food, then any one area that has trouble can’t draw from other areas. I think we’re too far in the direction of too much connectivity and specialization.

“Things like [British Columbia’s Agricultural Land Reserve] are an important part of maintaining that resilience. There may be a point somewhere in the future where we’ll need all that agricultural land. I think the new plan to protect agricultural land and greenspace around Toronto should be interpreted not in aesthetic terms -- that’s important -- but in terms of long-term economic resilience for Ontario’s society.”

On the absence of a refuge when things go badly:

“I don’t think it makes much difference. We’re all one big connected organism on this planet now. People say, ‘I’m going out to B.C. because at least I can grow my food there.’ The idea that you can retreat somewhere and be safe, I don’t think that has much grounding anymore. We are all profoundly dependent on our industrial society. We can do things to make ourselves somewhat more independent, somewhat more resilient, on a household level, but we

also have to recognize that we are not and don't want to go back to 19th-century living. There are a lot of good things about the world in which we live and we need to figure out how to keep the best and get rid of the things that aren't doing us so much good."

This ain't no Rapture, no Armageddon:

"I want to make it clear that [my outlook] is not an end-of-the-world theory. Catastrophe is not inevitable. It's interpreted by some people that way, but that's a caricature. I'm saying that it's likely that we're going to get significant crises and some forms of breakdown in the future. But that's by no means the end of the world. Even if it's as bad as the Great Depression, that wasn't the end of the world and in some places it was an opportunity for fundamental reform. And 9-11 was a nasty, nasty situation, but it could have been used for real creativity. We should be prepared to exploit those opportunities. But this is not about inevitable catastrophe. The hope then resides in the possibility of change, not in trying to keep things the same. Things are going to change. That's actually good."

On recognizing the human place in the natural order:

"We've got to get beyond exceptionalism. We're exceptional, but we're not that exceptional. We're different from animals, and our society is different from previous societies, but not so much that we can just rewrite the rules of nature. That's part of the prospective mind, is recognizing our limits."

On the possibility that we are part of a natural cycle completely beyond our control:

"Maybe. I look at my son and I hope that we can do better. I think breakdowns, and crashes if you want to call them that, are a natural part of adaptation. But Buzz Holling makes this distinction between what he calls 'collapse' -- what I call 'breakdown' -- and 'deep collapse,' where you get a pancaking of the system. And I think we can avoid that. We do this within market systems already. You have an immense amount of change, turnover, localized collapse, but the overall system is extremely dynamic and productive. Overall, most people do pretty well. Very well. I would hope that we could do the same thing with our social and political systems. Instead we make them more and more rigid over time. We're so intent on making sure that nothing changes."

See part two: Homer-Dixon on the power of the Internet and "open-source democracy" for solving problems.