

What Makes a Resilient City?

Conference Executive Summary
Dallas Institute of Humanities and Culture

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Prepared by Ann Drumm, www.anndrumm.com, ann@anndrumm.com

What makes a resilient city? Over 100 attendees explored that question at Dallas City Hall with complexity and security scholar Dr. Thomas Homer-Dixon and sociologist Dr. Eric Klinenberg, joined by Dr. Gail Thomas and local thought leaders in panel discussions. The Institute is pleased to provide this Executive Summary of the conference.

MORNING KEYNOTE BY DR. THOMAS HOMER-DIXON

Dr. Homer-Dixon, complexity scholar and author of *The Upside of Down: Catastrophe, Creativity and the Renewal of Civilization*, identified two distinct and equally important types of resilience. The first is the concept we're most familiar with, *engineering resilience*: bouncing back to the status quo after a disruptive event. The second and less familiar type, *ecological resilience*, is about adaptation and deep change through creative destruction.

He began with a discussion of the increasing incidence and severity of shock as our world changes - the "Down" of his book title. It's in confronting shock and crisis that we create resilience and the potential for "Up."

He observed that we are seeing more frequent shocks of higher magnitude: not only climate events, which he discussed in some detail, but shocks like the continuing global economic crisis, failure of technological systems such as electrical grids, and health shocks like avian flu or SARS. We increasingly have to cope with simultaneous shocks that interact with each other in a multiplier effect that increases their overall severity.

Our world is characterized by complex systems that have *emergent properties*, he explained. Complex systems cannot be easily managed because their behavior is unpredictable. We're moving from a world of *risk* to a world of *uncertainty*. In a world of risk, we can look at the possible decision options, analyze the potential costs and benefits along each of those pathways, and make a rational analysis based on the available information. In a world of uncertainty, we don't even know what the pathways are, let alone the potential costs and benefits of going down any of those pathways. We're in a world of deep ignorance – a world of "unknown unknowns," and we need to increase both engineering and ecological resilience.

There are two main ways to increase *engineering resilience*:

- Diversify sources of critical inputs and forms of problem-solving knowledge, and
- Loosen coupling in key systems (reducing connectivity, increasing self-sufficiency in key inputs, and boosting redundancy of key internal components).

We can increase *ecological resilience* by:

- Decentralizing problem solving,
- Boosting the rate of safe-fail experimentation, and
- Planning in advance for political action when shock occurs.

AFTERNOON KEYNOTE BY DR. ERIC KLINENBERG

Dr. Klinenberg is the author of *Heat Wave: A Social Autopsy of Disaster in Chicago*, a book that chronicles the Chicago heat wave of 1995, and his talk focused on the lessons of that event and of 2012's Hurricane Sandy. His theme was that "events can matter:" they can be turning points that set us onto a new course, but they can "not matter also" if they're swept over as if they never happened.

Heat waves kill more people in a typical year than hurricanes, tornadoes, earthquakes and floods combined, and the Chicago heat wave created a public health crisis for which the city was unprepared. The result was a massive spike in mortality: 739 excess deaths were attributed to the heat during this 2 ½ day event.

Hundreds of Chicagoans died alone. Deaths were clustered in the high poverty, segregated neighborhoods on the south and west sides; however, three of the ten neighborhoods that had the lowest death rates were demographically similar to neighborhoods with high death rates. His explanation of that difference is that the *social infrastructure* of a place helps determine peoples' capacity to live or die. The areas with high death rates weren't just poor, segregated and African-American; they were *abandoned*. In the decades leading up to the heat wave, they had lost population, mom & pop stores, grocery stores, maintained sidewalks, services, and jobs – they were scenes of destitution. Neighborhoods like this become dangerous; they encourage people to "hunker down" at home for safety rather than drawing the vulnerable out into public spaces. By contrast, even poor neighborhoods can provide a density that encourages people to integrate their lives in powerful ways.

He charged Chicago's leaders not just with failure to follow the heat plan that had been prepared before the event but with trying to make sure that "this incredible catastrophe" passed with as little notice and study as possible. When an even more devastating heat wave assaulted Europe for three weeks in 2003, with 35,000 to 50,000 excess heat-related deaths, it seemed that European leaders had learned no lessons from the Chicago event.

The key lesson is that social connections are as important as physical infrastructure. A neighborhood that has a rich set of community organizations will be more resilient than one that doesn't. Technology is enabling exciting new forms of organization, but he said that social organization doesn't require the use of technology, citing a Chicago community garden as an example. "Our capacity to organize matters," and the difficulty of sustaining community organizations in abandoned neighborhoods is a policy challenge that needs to be addressed.

He concluded by challenging us to bring together visions of physical and social resilience so that events like Sandy don't become "non-events" because of our failure to learn their lessons.

OTHER CONTENT IN OUR FULL REPORT (www.anndrumm.com)

Please see the full report for more details about these keynote presentations as well as:

- Opening remarks by Dr. Gail Thomas
- Panel discussion about resilience and our common humanity and collective action
- Report of our lunch exercise with conference participants
- Panel discussion about individual resilience and strengthening neighborhoods