

THE SIREN CALL FOR RESILIENCE

**Tom Gladwin
University of Michigan**

**SMART Moving Minds Conference
November 11, 2009**



Resilient Cities 2010



1st World Congress on Cities and Adaptation to Climate Change

Bonn, Germany
28-30 May 2010

NACHHALTIGKEIT.
SUSTAINABILITY.
DURABILITÉ.
BONN.

ICLEI
Local Governments for Sustainability

Call for Contributions
Deadline:
31 December 2009

Register Now!

VANCOUVER
Canada
OCT 20-22, 2009

SmartGrowthBC
in association with
GAINING GROUND

resilient cities

Urban Strategies for Transition Times

in collaboration with the Canadian Society for Ecological Economics

INVITED SPEAKERS include...

Paul Hawken	Sarah Severn	John Knott	Pamela Mang	Majora Carter	Bill Rees	Gregor Robertson	Anita Burke

The call for sustainability and climate action, a quickly shifting energy future, and the lure of the green economy have North American cities scrambling to comprehend and manage the shift toward ecological practices and greater resilience.

The conference will explore strategies to make cities more robust, and will enable participants to advance their thinking on three key subjects:

- innovation in sustainability governance and best current practices for managing sustainable urban systems;
- capturing opportunities in the green economy;
- strategies for building widespread sustainability collaborations that engage the community level.

The conference will also celebrate Vancouver and its vision of becoming an exemplary green city and a champion of the green economy.

Reserve your seat at the conference today by registering online or calling 250-472-4747.

info@gaininggroundsummit.com • www.gaininggroundsummit.com • 250-858-4600

Event planned and hosted by



CENTER FOR URBAN INNOVATION

RESILIENT CITIES

Responding to Peak Oil
and Climate Change

Peter Newman, Timothy Beatley, and Heather Boyer



TRANSPORT REVOLUTIONS



MOVING PEOPLE AND FREIGHT WITHOUT OIL

RICHARD GILBERT & ANTHONY PERL



THE TRANSITION HANDBOOK

From oil dependency to local resilience



Rob Hopkins

Founder of the Transition movement

"If your town is not yet a Transition Town, here is the guidance for making it one.
We have little time, and much to accomplish." — Richard Heinberg, author of *Peak Everything*



Post Carbon Cities: Planning for Energy and Climate Uncertainty

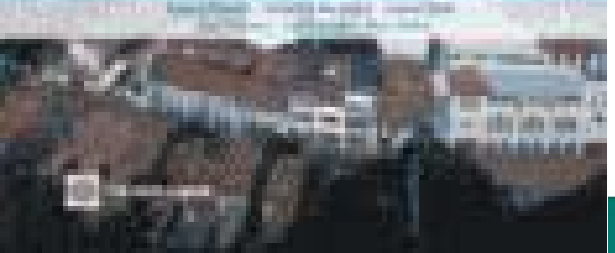
A Guidebook on Peak Oil and Global Warming for Local Governments

DANIEL LEITCH
POST CARBON INSTITUTE



Climate Resilient Cities

A Primer for Building Resilient Cities to Survive

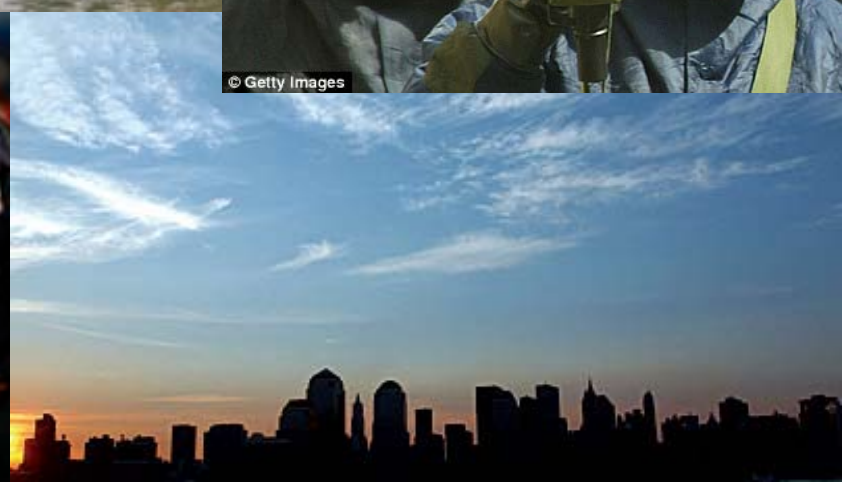


Transportation Systems

Critical Infrastructure and Key Resources
Sector-Specific Plan as input to the
National Infrastructure Protection Plan

May 2007







THE BLACK SWAN



The Impact of the
HIGHLY IMPROBABLE

Nassim Nicholas Taleb



Likelihood of Increased Frequency/Intensity of Events for Coastal Megacities Over Next Two Decades

[note: 4=Very Likely to Happen; 2=Might Happen]

EVENT	MEAN	EVENT	MEAN
Hurricanes	4.00	Worker Strikes	3.09
Oil Price Shocks	3.91	Pandemics	3.09
Financial Crises	3.86	Computer Network Failures	3.05
Oil Supply Interruptions	3.73	Power Blackouts	3.05
Droughts/Water Scarcities	3.57	Cold Waves	3.05
Intense Precipitation Events	3.55	Civil Unrest/Riots	2.68
Extreme Heat Waves	3.45	Terrorist Attacks	2.62
Earthquakes	3.23	Nuclear/Biological Warfare	2.23



“We have learned little from the cataclysms of Sept. 11 and Hurricane Katrina. When it comes to catastrophes, America is living on borrowed time—and squandering it.”

Stephen E. Flynn



THE EDGE OF

Why do we remain unprepared for the next terrorist attack or natural disaster? **Where are we most vulnerable?** How have we allowed our government to be so negligent? **Who will keep you and your family safe?** Is America living on borrowed time? **How can we become a more resilient nation?**

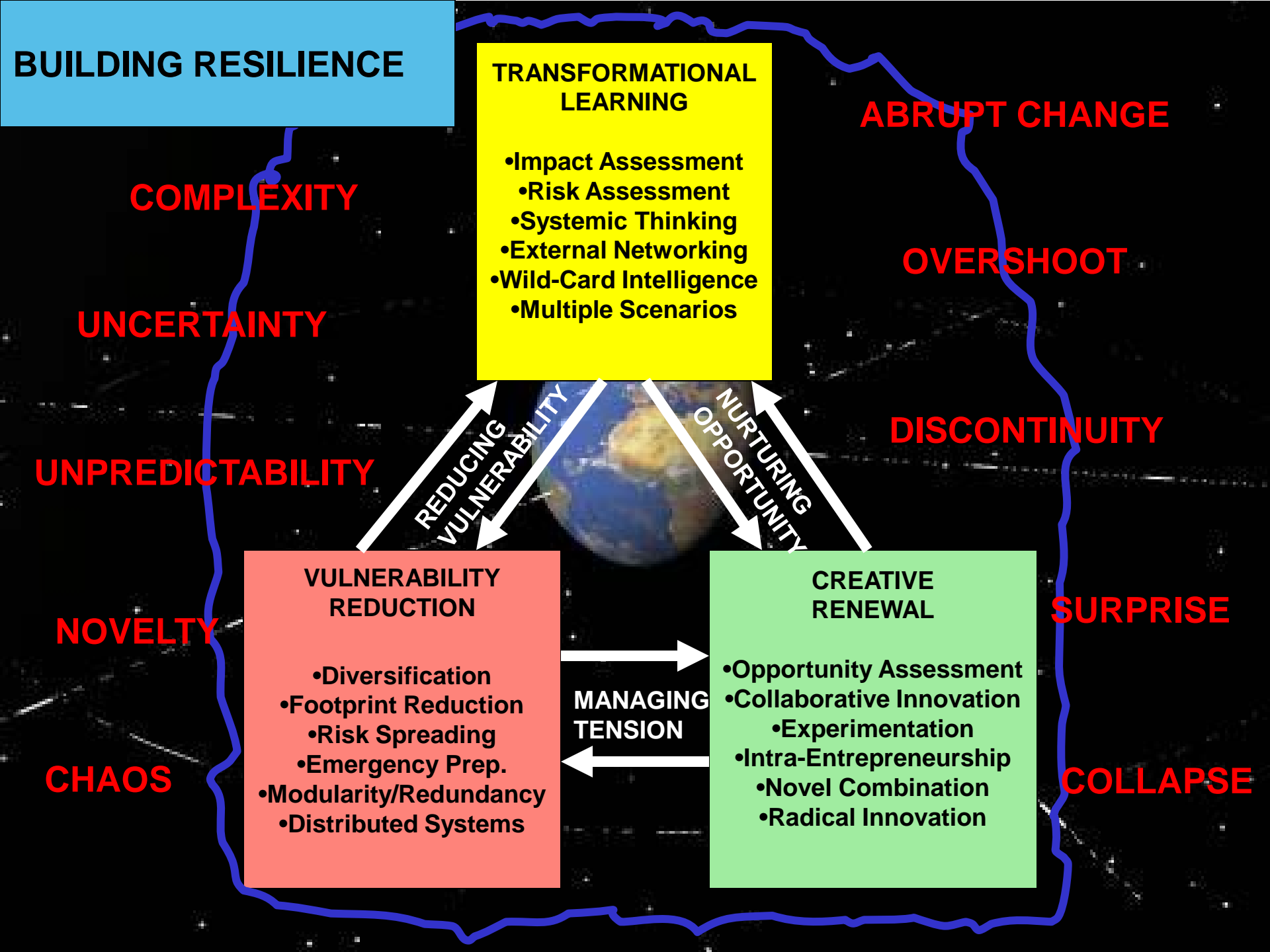
DISASTER

STEPHEN FLYNN

RESILIENCE:

“Capacity of a system to absorb a spectrum of shocks or perturbations and to sustain and develop its fundamental function, structure, identity, and feedbacks as a result of recovery or reorganization in a new context.”

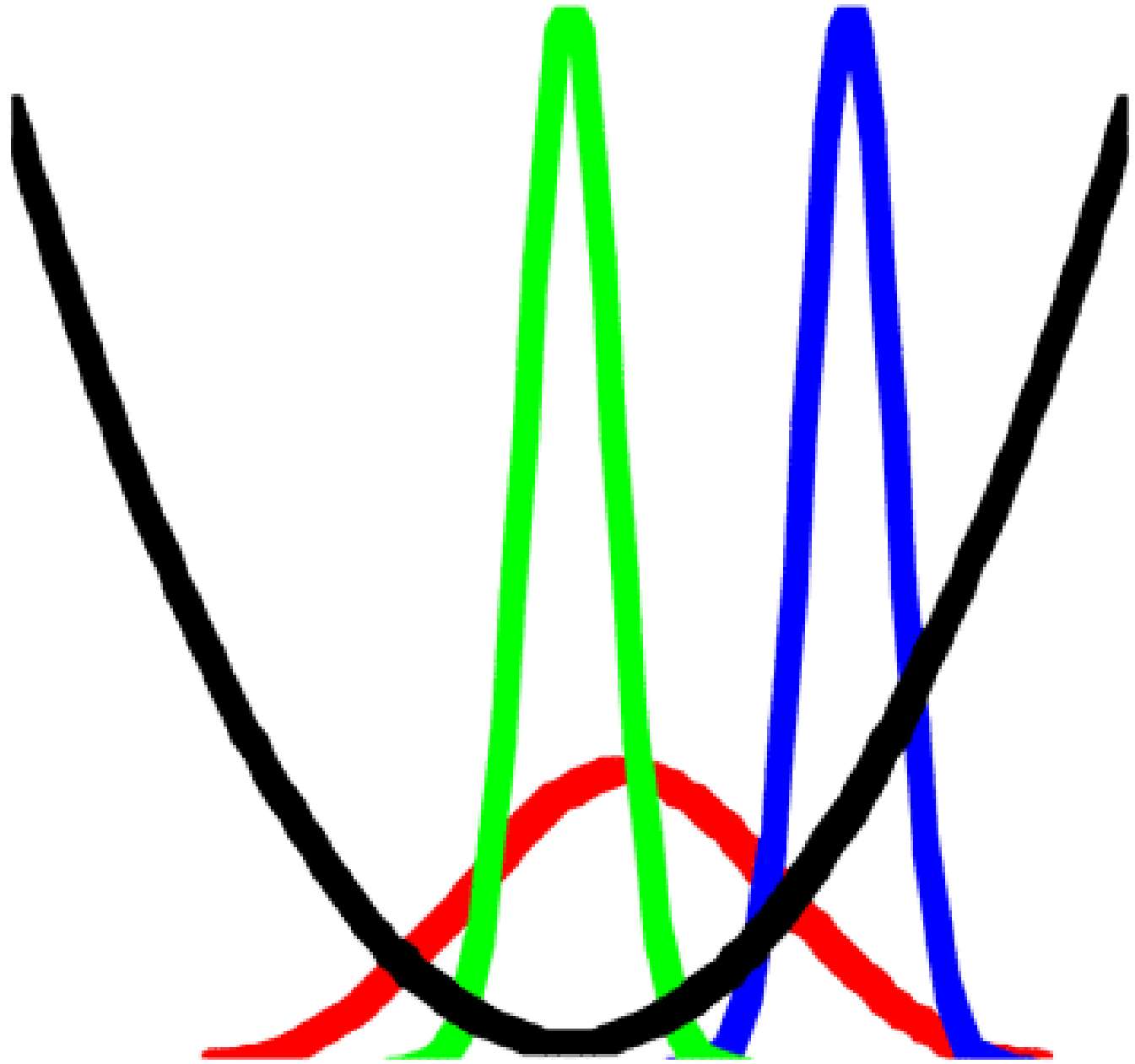
F. Stuart Chapin III, et. al., Principles of Ecosystem Stewardship, Springer 2009



Properties of a Resilient Urban Mobility/Accessibility System

[5=Very Important; 1=Unimportant]

PROPERTY	MEAN	PROPERTY	MEAN
Renewable Energy Rely	4.19	Collective Creativity	3.75
Network Connectivity	4.14	Social Learning	3.65
Modal Diversity	4.05	Fail Safe Designs	3.53
System-Wide Communication	4.05	Functional Redundancy	3.50
Collaborative DM	4.00	Localized Supply	3.5
Walk/BikeAbility	3.90	Infrastructure Protection	3.45
Cross-Scale Coordination	3.89	Trust in Leaders	3.42
Adaptive Governance	3.85	Contingency-Based Planning	3.35
Emergency Preparation.	3.80	Distributed Services	3.35
Experimentation	3.75	Modularity	3.21





INSCRUTABLE

NOVEL

SURPRISING

EMERGENT

CHAOTIC

UNPREDICTABLE

RISKY

INIMICAL

TUMULTUOUS

YUCKY

THE BIG

INSECURITY