

**THE UPSIDE OF DOWN: CATASTROPHE,
CREATIVITY AND THE RENEWAL OF CIVILIZATION**
by Thomas Homer Dixon

STUDY GUIDE

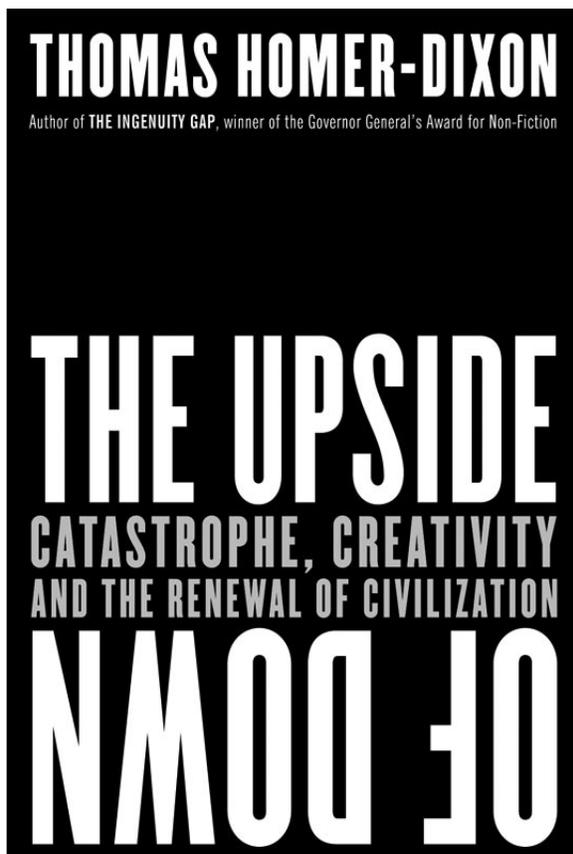
Prepared by Joan Hewer

The guide includes for each chapter:

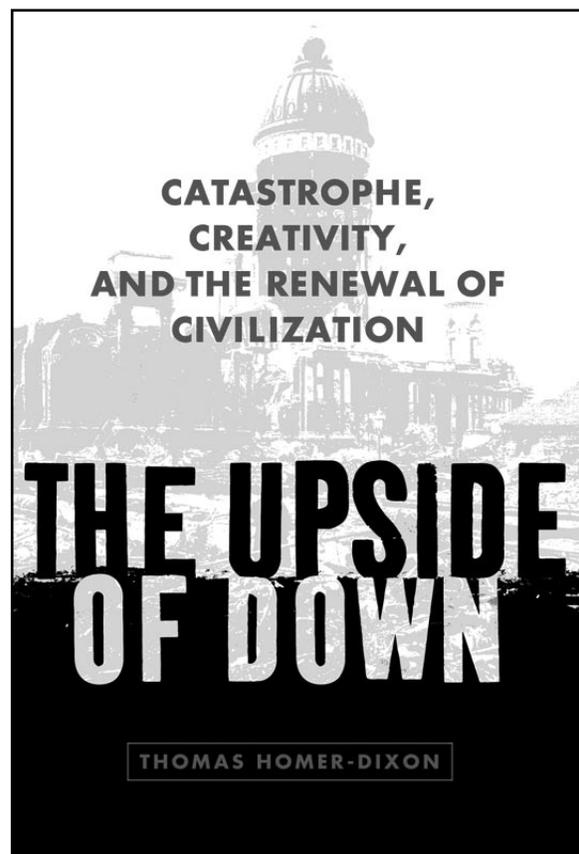
- a list of key words / concepts,
- pertinent quotations from the text,
- thought provoking and study-guiding questions, and
- relevant web sites.

An additional **Guide for Teachers** is available, containing ideas for pre-reading, post-reading and ongoing activities, lessons and projects. Due to the scope of the book and its global distribution, reference to specific curricula is not possible. The suggested activities could be adapted to suit many different grade levels for a variety of courses dealing with global studies.

Web links for interaction and research are also provided.



Canadian edition



U.S. edition

Chapter 1: Tectonic Stresses

Key words & Concepts:

tectonic	ingenuity	globalization	catagenesis
path dependency	synchronous failure	prospective mind	threshold effect
nonlinear behavior	globalization	complex adaptive system	

From the text...

“...we can’t ignore nature any longer, because it affects every aspect of our well-being and even determines our survival.” (p. 12)

“...energy is society’s critical master resource: when it’s scarce and costly, everything we try to do, including growing our food, obtaining other resources like fresh water, transmitting and processing information, and defending ourselves, becomes far harder.” (p. 12)

“But only in the past hundred years or so...have we created tightly interlinked economical, technological and social systems-...that penetrate virtually every corner of the planet.” (p. 13)

“...we’re now a physical force on the scale of nature itself, disrupting the deepest processes of natural systems like Earth’s climate...” (p. 13)

“But we can still say confidently that we’re sliding toward a planetary emergency; that the risk of major social breakdown in general — the result of something like synchronous failure specifically — is growing.” (p. 17)

“A prospective mind recognizes how little we understand and how we control even less.” (p. 29)

“It’s time we turned passengers into drivers.” (p. 30)

Consider:

- What dangerous attitude regarding the state of our world permeates our society?
- In what ways will/should the 21st Century be the ‘Age of Nature’?
- What factors cause Western Society to feel it is exceptional and thus immune to the sort of fates which befell other great civilizations?
- What will make the breakdown of our society more “likely, widespread, and severe”?
- How has our recent, total globalization made our society and our world more vulnerable?
- With what two-stage strategy do we, as a society, typically respond to unfolding major threats?
- What prime factors work against successful idea generation and problem solving?
- What qualities of complex adaptive systems make them adapt well to new challenges and stresses?
- By what 4-stage cycle do some complex systems adapt to their changing environment?
- Which stage holds the greatest potential danger?
- What characteristics of complex systems make them unique, and at the same time, make prediction almost impossible?
- Why is the development of a ‘prospective mind’ crucial for the future of our society?

For relevant websites pertaining to this chapter, go to: www.theupsideofdown.com/studyguide/

Chapter 2: A Keystone in Time

Key words & Concepts:

thermodynamics of empire

thermodynamic equilibrium

entropy

high-quality energy

low-quality energy

potential energy

EROI (energy return on investment)

From the text...

"Empires run on energy. A central task of any empire is to produce, transport, and focus enough energy to extend its economical and political power." (p. 36)

"Energy is the lifeblood of all societies." (p. 36)

"Understanding the nature of heat can tell us important things about the flow of energy in natural and man-made systems...: (p. 38)

"...the Roman Empire was eventually unable to generate enough high-quality energy to support its technical and social complexity...This was the fundamental cause of Rome's fall." (p. 42)

"...to understand energy's role in our societies' ability to adapt and survive, we need to develop the everyday habit of recognizing energy in all its uses and consequences." (p. 49)

"These ever-present dangers...drive societies to aggressively control and organize territories that supply their energy and to extend their interests, engagements, and often their political and economic domination far beyond their current borders..." (p. 54-5)

"...After a certain point in time, without dramatic new technologies for finding and using energy, the society's return on its investment to produce energy- its EROI- starts to decline." (p. 55)

Consider:

- Beyond as a basic fuel, how is the role of energy in our lives more fundamental, essential and subtle?
- What advantages do societies with more access to a good supply of energy have over those without?
- Why is more and more energy needed to keep a system operating as it becomes larger and more complex?
- How was the fall of Rome inexorably connected to its energy crisis?
- What must we do to better understand energy's role in society's ability to adapt and survive?
- What two critical lessons can the energy situation in Ancient Rome and the U.S. today teach us about humanity's predicament as it enters the 21st Century?
- What drives a society to constantly find, produce, and control new sources of energy how will this trend shape our future?
- What situation will serve to make the breakdown of our own society more catastrophic, dismal and far-reaching than that of Ancient Rome?

For relevant websites pertaining to this chapter, go to: www.theupsideofdown.com/studyguide/

Chapter 3: We are like running water

Key words & Concepts:

global demographics	population	immigration	transition
demographic momentum	youth bulge	population explosion	birth rate
immigration policy	megacities		

From the text...

“A society’s degree of urbanization tells us something about its complexity and its vulnerability to shortage of energy, while its population growth or contraction tells us something about the well-being of its people and the health of its overall economy. (p. 60-1)

“The demographic imbalance between rich and poor countries is clearly already severe- and its an imbalance that’s going to get much worse and have far-reaching implications for social conflict between these countries, and inside them too.” (p. 64)

“Wealthy societies have so far faced only a tiny fraction of the pressure they’ll face in coming decades. The current stream of people now arriving from poor regions is going to become a torrent. (p. 68)

“By 2003, 20 cities had more than 10 million inhabitants, with 15 in poor countries...Some of these mega cities are growing amazingly fast.” (p. 72)

“And as urban populations explode in poor countries, quality of life there plummets. Governments can’t provide even basic services.” (p. 72)

“ ‘Italy relies on external resources’, lamented Roman historian Tacitus, ‘and the life of the Roman people is tossed daily on the uncertainties of sea and storm’ “ (p. 75)

Consider:

- Why does the death rate of a society usually decline before the birth rate? What is the effect on its population?
- Although the population of many countries will actually shrink in the near future, why will the world’s population continue to grow rapidly over the next few decades?
- What 3 factors will contribute to the continued growth of population in most of the poor countries of the world?
- How is the continued growth of poverty in the world connected to global peace?
- What social and political changes in developed countries has the resurgence of migrating poor caused?
- How does the ‘youth bulge’, especially prevalent in poor countries, threaten international stability?
- Why does the need for a constant supply of high-quality energy make megacities extremely vulnerable and volatile?

For relevant websites pertaining to this chapter, go to: www.theupsideofdown.com/studyguide/

Chapter 4: So long, cheap slaves

Key words & Concepts:

high-quality energy

oil shocks

power density

energy intensity

oil production peak

conventional oil

geopolitics

geoscarcity

alternative sources

unconventional oil

energy efficiency

From the text...

“Energy is our master resource. In the ...worldly sense, energy is simply a fuel. It makes things go.” (p. 80)

“In the sacred sense...energy sustains the social order and complexity that allows us to solve our common problems and make our lives steadily better.” (p. 81)

“Oil powers virtually all movement of people, materials, foodstuffs and manufactured goods- inside our countries and around the world.” (p. 81)

“The world economy has no plan B.” (p. 94)

“Some combination of these other energy sources could eventually take up the slack as the output of conventional oil falls. But each faces formidable obstacles...” (p. 94)

“...as long as we're addicted to strong economic growth, our total energy consumption will not go down, even if we steadily improve our energy efficiency.” (p. 99)

Consider:

- How is fuel really vital to our well-being?
- How is energy inexorably connected to some of society's biggest problems?
- Which countries will very soon become the 'big players' involved in the energy-caused problems facing our world?
- What makes oil such a valuable and unique energy source?
- What evidence points to the fact that we are now in the transition period between oil abundance and oil scarcity?
- What public and political beliefs hinder attempts at conservation and development of alternate energy sources?
- How can Hubert's 'production peak' theory help us understand the future of oil on Earth? What evidence points to a fairly imminent worldwide peak?
- What will likely be some of the effects of the world reaching this peak?
- Why will alternate energy forms not be able to pick up the slack once cheap oils runs out?
- Why will the move toward energy efficiency not make strides into solving the problem?
- What economic factors work against energy conservation?

For relevant websites pertaining to this chapter, go to: www.theupsideofdown.com/studyguide/

Chapter 5: Earthquake

Key words & Concepts:

psychological network	stress triggering	high-velocity networks	synergy
negative synergy	boundary jumping	collapse	overload
tightly coupled system	foreshocks	scale-free networks	connectivity
keystone species			

From the text...

“The analogy between earthquakes and social breakdown is surprisingly apt.” (p. 103)

“Synergy happens when people, things, or events combine to produce a larger impact than they would if each acted separately... We tend to assume that synergy is always positive and beneficial, but it can just as easily be negative and harmful.” (p. 106)

“The breakdown of a system... simplifies its internal organs and reduces its range of potential behaviors.” (p. 109)

“A society overloaded with stresses breaks down.” (p. 110)

“...connectivity and speed... combine with stresses to make breakdown more likely and, when it happens, more disruptive.” (p. 113)

“Scale-free networks are particularly vulnerable to intentional attack: if someone wants to wreck the whole network, he simply needs to identify and destroy some of its hubs.” (p. 118)

“Almost certainly, malicious individuals and small groups, including terrorists, are starting to understand how to exploit our interconnected and high-velocity networks to multiply their disruptive power.” (p. 119)

“...as human societies’ connectivity and speed increase, social breakdown, when it does happen, generally happens faster.” (p. 127)

Consider:

- What tools used in earthquake studies can be useful in forecasting social breakdown? What are the limitations of using earthquake science to help us understand the breakdown of society?
- How is the breakdown of complex systems often connected to negative synergy?
- How does a ‘breakdown’ differ from a ‘collapse’?
- What factors make it more likely that a society will suffer a breakdown or even a collapse?
- What roles do connectivity and speed play in societal breakdown?
- How is the phenomenon of “the whole becoming greater than the sum of its parts” relevant to the breakdown of society?
- What dangers lie in the tendency of society and nature to produce scale-free networks?
- How do cities act as hubs for the Earth’s human population and how do they make our society more vulnerable?
- What help do terrorists receive from our societies’ psychological networks?
- What unforeseen ripple effects can an attack like 9/11 have?
- What factors help terrorists achieve an even greater economic impact than they plan or hope for?

For relevant websites pertaining to this chapter, go to: www.theupsideofdown.com/studyguide/

Chapter 6: Flesh of the land

Key words & Concepts:

existential denial

Anthropocene

hollow societies

consequential denial

industrialization

erosion

fatalistic denial

environmental impact

environmental stress

From the text...

“-- no matter how much we think we can isolate ourselves from, or rise above, nature -- we're still intimately entwined with nature's processes.” (p. 131)

“Rich countries have indeed solved some of their visible, local environmental problems. But in the meantime their impact on the global environment has in many ways grown -- and grown a lot.” (p. 135)

“So poor countries often find they're squeezed in a vise. On one side they have large and still growing populations with rapidly rising economic expectations that depend on an ever more degraded environment. On the other side they have persistent economic and political weaknesses that keep them from coping effectively with environmental problems.” (p. 139)

“The origin of this crisis lies within our species. We're now so large in our numbers and so powerful with our technologies that we have become a planetary force.” (p. 140)

“...untold numbers of poor people around the world find themselves squeezed between... a degraded environment that doesn't provide an adequate living and... failed economies that don't supply other livelihoods. And it's the immense social dislocation and bitter frustration, anger, and resentment... that's a very real threat to the social and political stability of nations and, ultimately, to world order.” (p. 147)

Consider:

- What indications are there currently on Earth that we are inextricably connected to the 'web of life'?
- Why do humans tend to deny the great issues facing them?
- What 3 stages of denial do we go through in dealing with environmental issues?
- Why do rich countries often seem less of an environmental problem? What is the reality?
- In what ways are wealthier nations operating with an 'out of sight, out of mind' philosophy?
- What extenuating circumstances prevent poor developing countries from being environmentally conscious?
- In what ways are we [humans] now a planetary force?
- What vital role do forests play in the earth's ecosystem?
- How can environmental stresses 'hollow' and weaken societies? What are some of the tangible repercussions?
- How will the failure or breakdown of poor countries affect all societies on Earth?

For relevant websites pertaining to this chapter, go to: www.theupsideofdown.com/studyguide/

Chapter 7: Closing the windows

Key words & Concepts:

global warming

greenhouse gases

feedback loops

symbiosis

nonlinearities

climatic shifts

multiple equilibriums

ecosystem

keystone species

Great Ocean Conveyor

From the text...

“All this melting ice around the world is one sign that the Earth is warming quickly.” (p. 157)

“Because greenhouse gas emissions come mainly from burning fossil fuels... the industrial world’s main source of high-quality energy, policies that really curtail emissions will affect practically every activity in the world’s rich countries.” (p. 159)

“...only a few degrees of warming can produce huge shifts in global climate. Just five degrees separate the end of the last ice age from today’s climate.” (p. 162)

“No doubt there will be benefits [of warmer temperatures]. Yet harmful outcomes will probably be far more common and serious, especially for poor countries that can’t easily adapt.” (p. 164)

“All climate experts... acknowledge that we face something of a paradox: while Earth is on the whole, getting hotter -- very quickly so by historical standards -- some regions could become colder... because of radical shifts in the way heat circulates around the planet.” (p. 172)

“As the ecosystem’s species disappear, it can lose keystone species that provide essential services, like pollination.” (p. 173)

“So over time, a negative synergy of climate change and other environmental stresses may further damage the soils, plant and pollinator ecosystems, forests and fisheries that are vital to people’s health and livelihoods, especially in poor countries.” (p. 174)

Consider:

- How has global warming affected some of the Earth’s coldest regions?
- What effects of global warming are being felt in areas where glaciers are rapidly disappearing?
- In what ways does global warming put stress on society everywhere, rich or poor?
- What strong evidence points to our greenhouse gas emissions as the leading cause of global warming?
- What will likely be some of the positive and negative results of warmer global temperatures?
- How could the ‘feedback loop’ occurring in the Arctic perhaps produce a ‘runaway’ greenhouse effect? What evidence is there that this is a likelihood?
- What effects can we expect as global warming disrupts the workings of ocean currents in the North Atlantic?
- Why do the world’s pollinators deserve our special attention? What factors have caused their decline?
- How should the lasting effects of Hurricane Jeanne in Haiti serve as a warning to the rest of the world of the possible effects of global warming?

For relevant websites pertaining to this chapter, go to: www.theupsideofdown.com/studyguide/

Chapter 8: No equilibrium

Key words & Concepts:

laissez-faire capitalism

convergence

global income gap

material discontent

growth imperative

development economics

economic stability

global capitalism

hedonic treadmill

From the text...

“Actually... markets are fundamentally unstable and often grossly inefficient...” (p. 178)

“Unfortunately, the ideology of laissez-faire capitalism denies the possibility of such instability and inefficiencies and relentlessly opposes government intervention that could improve matters.” (p. 178)

“...extreme global economic instability and the widening gap between rich and poor [are] critical dangers... They can... shred the fragile institutions and moral consensus that underpin our global society.” (p. 181)

“...not only has the gap between the average incomes of the world’s rich and poor widened steadily for a long time... but it will continue to widen for decades, probably for centuries.” (p. 191)

“...consumerism helps anesthetize us against the dread produced by empty lives... that modern capitalism and consumerism have themselves helped empty of meaning.” (p. 197)

“...we can’t escape the conflict between our growth, resource and environmental imperatives... our energy consumption is pushing the limits of supply, and our output of waste, especially of carbon dioxide, is pushing the Earth’s natural systems beyond the threshold of resilience” (p. 203)

“The question is how much more unequal world income distribution can become before the resulting political instabilities and flows of migrants reach the point of directly harming the well-being of the citizens of the rich world and the stability of their states.” (p. 205)

Consider:

- What are some of the dangerous drawbacks of the new global economy?
- In what ways has modern communication technology changed the nature of global economy and made it more vulnerable to collapse?
- Why is global capitalism increasingly becoming a ‘target for rebellion’?
- What factors cause the ‘rich to get richer and the poor to get poorer’?
- How does better globalized capitalism seem to help poor nations? What reality is revealed by rising evidence?
- What drives those in wealthier countries to constantly strive to increase their wealth, and why are those in charge ‘fixed on maintaining economic growth’?
- How is ‘material discontent’ crucial to global economic stability?
- What lesson did the Depression teach policy makers about our society?
- Why must demand be kept high and how is this accomplished?
- How does the ‘growth imperative’ worsen instability?
- What impact does constant economic growth have on the environmental and conservation imperatives?
- How does globalized capitalism and the ‘mass culture of consumerism’ actually threaten our rich Western society?

For relevant websites pertaining to this chapter, go to: www.theupsideofdown.com/studyguide/

Chapter 9: Cycles within cycles

Key words & Concepts:

licensing denial	'discourse' of economic rationality	intellectual neuroticism
diminishing marginal returns	existential denial	consequential denial
concatenating problems	adaptive cycle	panarchy theory

From the text...

"All of us... are highly conservative when it comes to our theories of reality. ...But sometimes we take this conservatism and denial to extremes, and the result is the kind of cycles-within-cycles intellectual neuroticism that we see in Santucci's great sphere... a willingness to do just about anything to preserve the sanctioned order of things." (p. 211)

"One we move beyond existential denial -- once we recognize, for instance, that higher temperatures aren't just the result of normal cycles of climate but are, instead, strong evidence of global warming and that our lifestyles are making this problem worse -- we have to decide what, if anything, we are going to do about it." (p. 213)

"We may be great problem solvers, but unfortunately we are increasingly creating problems that we can't effectively solve." (p. 213)

"Taken as a whole, modern capitalism's system of rules, institutions, and language is formidably resistant to change." (p. 217)

"To survive, let alone prosper, in our new and more dangerous world, however, we need to open our minds to the possibility of fundamental change in our lives." (p. 219)

"*'This is a moment of great volatility and instability in the world system. We need urgently to do what we can to avoid deep collapse.'* (Holling)" (p. 232)

Consider:

- What common strategies do we use to deal with society's worsening situation?
- Why are we so caught up in denial and avoidance of such earth-shattering problems? What are the psychological and social causes of these tendencies?
- How do the rules of modern capitalism create the situation for us that denial of our looming crisis is entirely rational?
- What is flawed about society's response of increasing complexity to solve problems?
- What are the immediate 'downsides' of a system's increased connectedness and efficiency? What are the eventual 'upsides'?
- In terms of Holling's 'panarchy theory', what 3 factors indicate that we are on the verge of systematic crisis or collapse?
- How can this theory help us make sense of the enormity of our society's situation.

For relevant websites pertaining to this chapter, go to: www.theupsideofdown.com/studyguide/

Chapter 10: Disintegration

Key words & Concepts:

disintegration	entropy	power shift	ruthless extraction
'Holland times ten'	energy subsidy	demographic imbalance	shattered sphere
organizational hierarchy	motivation and opportunity		

From the text...

"...we're busily extending the growth phase of the adaptive cycle of our planetary economic, ecological, and social system. In the process, the planetary system is becoming steadily more complex, connected, efficient, and regulated. Eventually it will become less resilient." (p. 250)

"The growth phase we're in may seem like a natural and permanent state of affairs...but ultimately it isn't sustainable." (p. 253)

"...what can we expect to happen? ...In poor countries where environmental, population, and economic stresses are already severe and social capacity to manage them remains low, we'll probably see a steady increase in outbreaks of civil violence. ...If this turmoil is unchecked, world order could disintegrate in stages--from the poorest countries at its periphery to the richest countries at its core..." (p. 254-5)

"...one kind of power that's diffusing to small groups is an extraordinary capacity to destroy." (p. 259)

"...as enormous destructive power diffuses down the social hierarchy from governments to groups and even to individuals, protecting our societies becomes exponentially harder." (p. 260)

"...energy constraints are worsening. Global warming fundamentally challenges capitalism's growth imperative." (p. 264)

Consider:

- How was the Roman Empire an early version of today's globalized world?
- In terms of energy, how is the collapse of the Roman Empire relevant to our situation today?
- What phenomenon marked the beginning of a shift from our modern industrial civilization to some other yet undetermined kind?
- To keep our 'gargantuan economy humming', what measures will we be forced to take?
- What effects can we expect to see as we are forced to shift from high EROI to low EROI sources of energy?
- In Holling's view, how can we best handle the seemingly inevitable social transformation?
- How are motivation and opportunity connected to civil violence?
- What objective and subjective factors make the prediction of acts of civil violence difficult?
- What elements of the nature of our society do extremist leaders play on when inciting civil unrest?
- What does the trend of the disappearing middle class mean for society's future?
- How has our improved technology in many ways made the world more dangerous?
- Why are we likely destined to be in constant conflict with such terrorist groups as Al Qaeda and what gives them an advantage over Western society's governments?

For relevant websites pertaining to this chapter, go to: www.theupsideofdown.com/studyguide/

Chapter 11: Catagenesis

Key words & Concepts:

catagenesis	prospective mind	creative destruction	resilience
graceful failure	management	moments of contingency	'floating population'
open source approach	steady-state economy		

From the text...

"In the past... we haven't really understood that our challenge isn't to preserve the status quo but rather to adapt to, thrive in, and shape for the better a world of constant change." (p. 266)

"We need to be comfortable with constant change, radical surprise, and even breakdown, because these are now inevitable features of our world, and we must constantly anticipate a wide variety of futures." (p. 268)

"In moments of contingency, surprise and breakdown create mental polarities: anticipation alternates with fear, and hope with despair. ...Moments of contingency are thus easily exploited for good or ill." (p. 278)

"In this stormy world, fundamentalist creeds can seem to provide a firm anchor. All such creeds claim privileged access to absolute truth, and all establish what's right and wrong, provide strict rules of behavior, and identify friends and enemies." (p. 279)

"We must bring experts together across disciplinary barriers, just as we must bring governments together across cultural, ideological and political barriers." (p. 281)

"A prudent way to cope with invisible but inevitable changes is to... build resilience into all systems critical to our well-being. A resilient system can absorb large disturbances without changing its fundamental nature." (p. 283)

"...resilience -- even as an idea, let alone as a goal of public policy -- isn't found anywhere in the agendas of our societies' leaders." (p. 287)

"...we need to allow for breakdown in the natural function of our societies in a way that doesn't produce catastrophic collapse, but instead leads to healthy renewal." (p. 289)

Consider:

- Why is the strategy of managing our problems rarely successful? What are the major roadblocks to any realistic management plan?
- Where and how might the 'earth-shattering' event needed to shake society from its complacency occur?
- Why are countries such as China, Saudi Arabia and Pakistan ones to watch in terms of our society's situation? Why is Europe particularly vulnerable?
- What phenomenon arises from people's need for reassurance in times of upheaval?
- What sorts of aggressive measures must we take to help create a more positive future?
- What factors work against the likelihood that such measures will be taken?
- Who must ultimately be responsible for building resilience into our critical systems?
- Why must we, as a global community, build resilience into the world's weakest societies?
- Why do non-extremists face a huge disadvantage in any kind of political struggle with extremists?
- What 3 characteristics must a system have in order to be better problem solvers and more adaptive?
- How could an open-source method help with our global dilemma?

For relevant websites pertaining to this chapter, go to: www.theupsideofdown.com/studyguide/

Chapter 12: Baalbek: The last rock

Key words & Concepts:

alternative values	resilient imperative	planetary emergency	Axial Age
utilitarian values	existential values	moral commonwealth	moral values
renewal	collective survival		

From the text...

"In planning for renewal after breakdown -- for catagenesis -- we need to have some good idea of where we want to go in the future... And to figure out what our goal is, we need to be clearheaded about our values." (p. 300)

"A civilization's values powerfully influence what form the civilization takes as well as what kind of evidence of its existence it leaves behind." (p. 305)

"...our values must be compatible with the exigencies of the natural world we live in and depend on. They must implicitly recognize the laws of thermodynamics, energy's role in our survival, the dangers of certain kinds of connectivity, and the nonlinear behavior of natural systems like the climate. The endless material growth of our economies is fundamentally inconsistent with these physical facts of life. Period." (p. 305)

"And only through much broader and deeper democratic practice will humankind likely develop the expansive 'moral commonwealth' essential to our collective survival." (p. 306)

"...in any complex adaptive system, breakdown, if limited, can be a key part of that system's long-term resilience and renewal." (p. 308)

"...if we want to thrive, we need to move from a growth imperative to a resilience imperative." (p. 308)

Consider:

- Why is the clarification of our values crucial to the survival of society?
- Why does Western society so adamantly cling to its utilitarian values and the ensuing consumerism?
- What kind of long-lasting evidence of its existence will likely be left behind by our civilization?
- What must our values recognize and be in tune with if they are to help us plan for a viable future for our society?
- Why will it be difficult if not impossible to change our current pervading values?
- If we are to survive, what form must the renewal of our society take?
- In handling the breakdown of our society, what advantages do we have over past fallen empires or systems?
- What positive factors can provide a sense of optimism in the seemingly doomed state of our society?

For relevant websites pertaining to this chapter, go to: www.theupsideofdown.com/studyguide/