



Architects Anonymous





A Gaia Hypothesis Production





Saving Earth 1.0

- Hit RESET Button.

RESET

WARNING

- The program you are about to see may not be suitable for all audiences but viewer discretion is NOT advised.
- Everything you take for granted is about to be taken from you. Your sensibility is to be tested.
- Moral suasion is in play. Liberate your practice.

....Warning: Unsettling Thoughts.



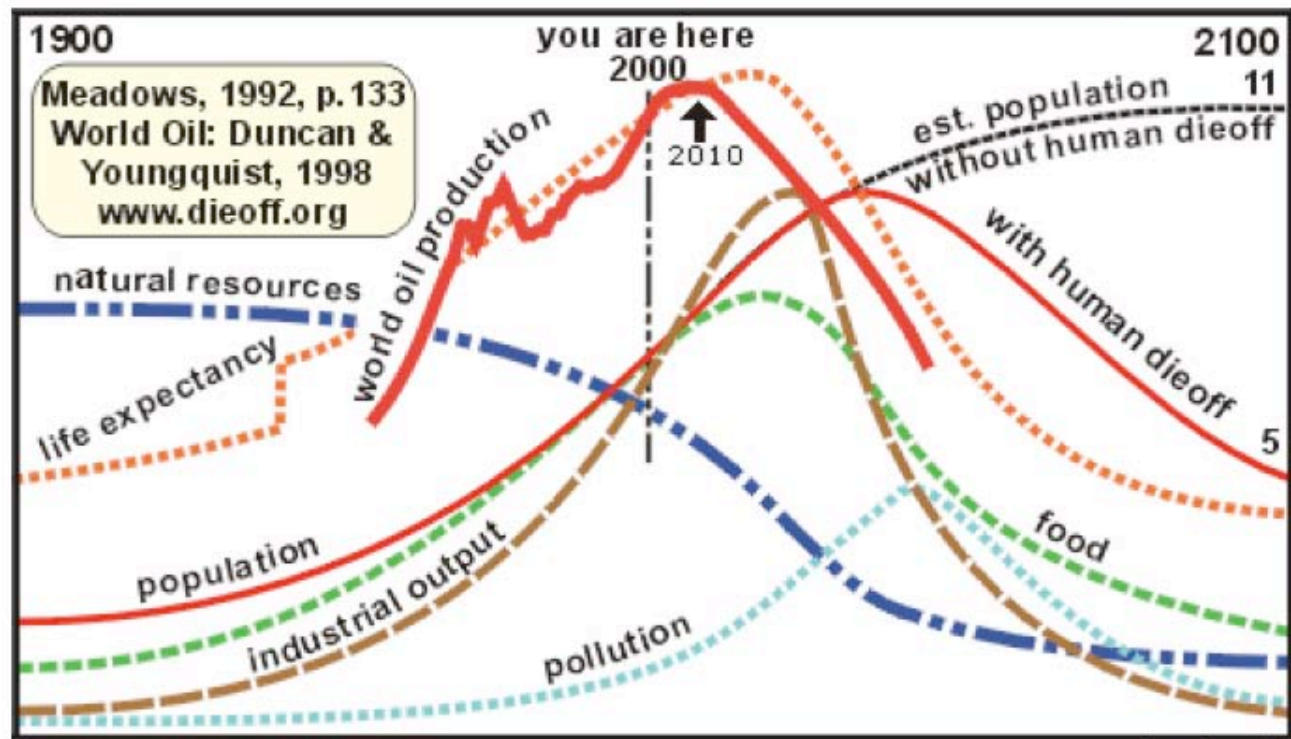
SSP: Global Impacts on City & Culture

- Peak Oil: the end of all cheap energy and key resources means end of the oil age economy, a need to totally reconfigure our community to operate in post oil efficiency, why do we keep building in oil age euphoric myopia? Architects and Planners are part of the problem!
- Climate Change will be adding to change as we leave environments that take too much energy to survive in those places, cities and farmland will be lost to rising oceans. Why have we left it too late to create workable post oil patterns of community. We knew most of this in 1970.
- This line of challenging linear planning comforts started in Vancouver City Planning Commission war-game seminars in 2005/2006.



the great change exchange and others are looking to inspire you to act to
save your progeny at least...

Which scenarios?



thegreatchange.org
vancouverpeakoil.org
friendsofgaia.org
ottawadissenters.org
america2.0
plancanada.com
-just some exchanges.

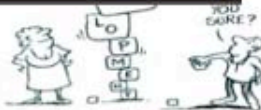
call Helmut....

helmut@ecoglobe.ch

ecology discovery foundation



ecoglobe



Balfour + Associates • Strategic Planning



Emancipation 2011

Energy: Stone age man took 1 Human Energy Equivalent from the environment.

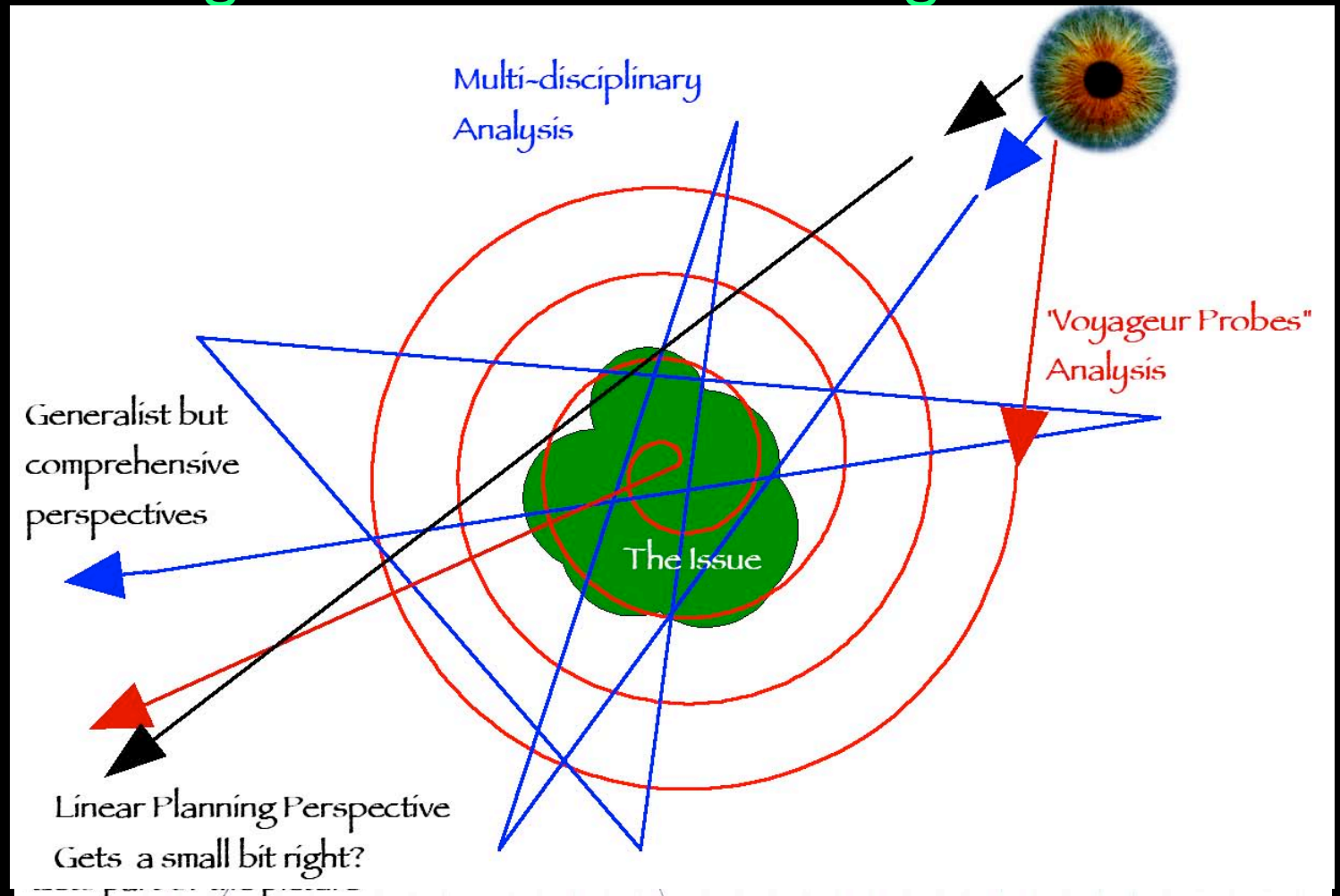
Today we exploit 75 energy slaves in the EU and 150 energy slaves per citizen in the USA and Canada.

Modernity, i.e. lifestyles and population size, is entirely based upon fossil energy that is being depleted at speeds that are one million times higher than the time needed for their accumulation 500 million years ago.



Non-linear Planning Presentations: Breaking the Rules.

As most
Architects
have ADHD
this poses no
problem and
may help find
solutions.



The Manual from Old City Foundation Press Vancouver
Planning Commission Gaming for Global Impacts on City & Culture



SSP34 RAIC Vancouver • AIBC GM 2011

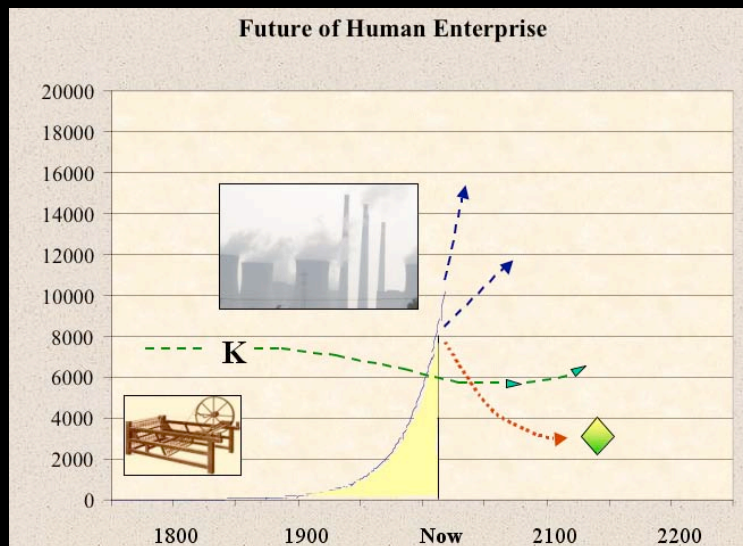
2005 War Games Peak Oil & Climate Change

Balfour + Associates • Strategic Planning



Alternate Histories to Plan Alternate Futures?

Quantum Physics
considers this as real?



PROACTIVE PLANNING: Strategic, Sustainable Planning:
Seeking alternative futures via quantum shifts
& by looking at alternate histories to find
soft landing alternatives for you & your community

One's Life:

Exploring New Options

-small shift options are not available anymore as
we delayed taking corrective actions.

The Past

Alternate Histories

EXPLORING
ALTERNATE
HISTORIES &
SEEKING NEW
COMMUNITY FORM

CURRENT TRENDS
UNSUSTAINABLE

LATERAL SHIFT OR
QUANTUM CHANGE
FOR SUSTAINABILITY:
PARADIGM SHIFT NOW
IS UNAVOIDABLE: PICK
THE BEST OPTIONS NOT
JUST FOR YOURSELF
BUT FOR YOUR CHILDREN

Alternate Futures
For Society Expand EXPONENTIALLY
if Alternate Histories Used to Explore for
Sustainable Society

Delay & indecision
- Systems collapse
will make negative choices for us.
Some societies are dragging all of us down
to unsustainable choices

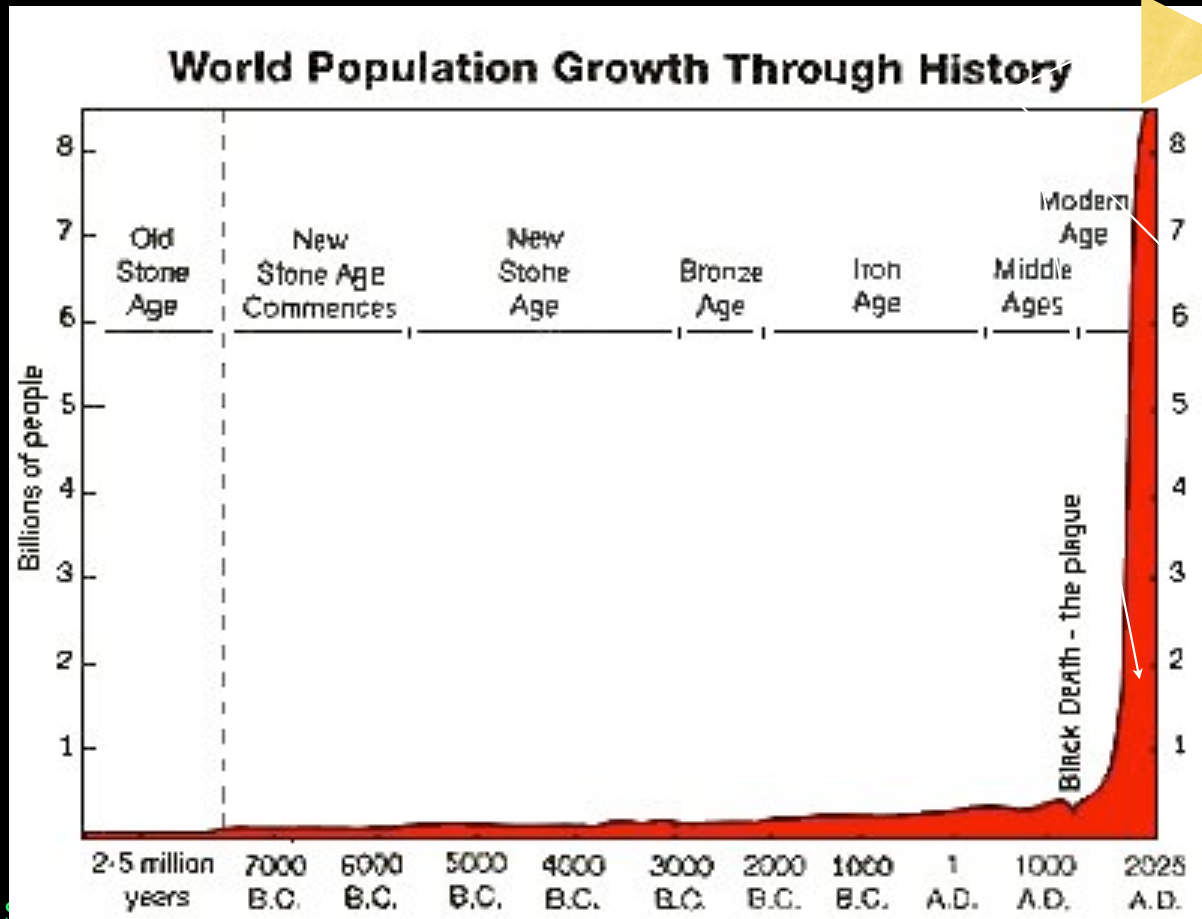
- Learning from the Old World, the Third World



All is a question of scale.

Location Reference: Peak People

You are HERE



The last hundred years human growth is a product of cheap energy.

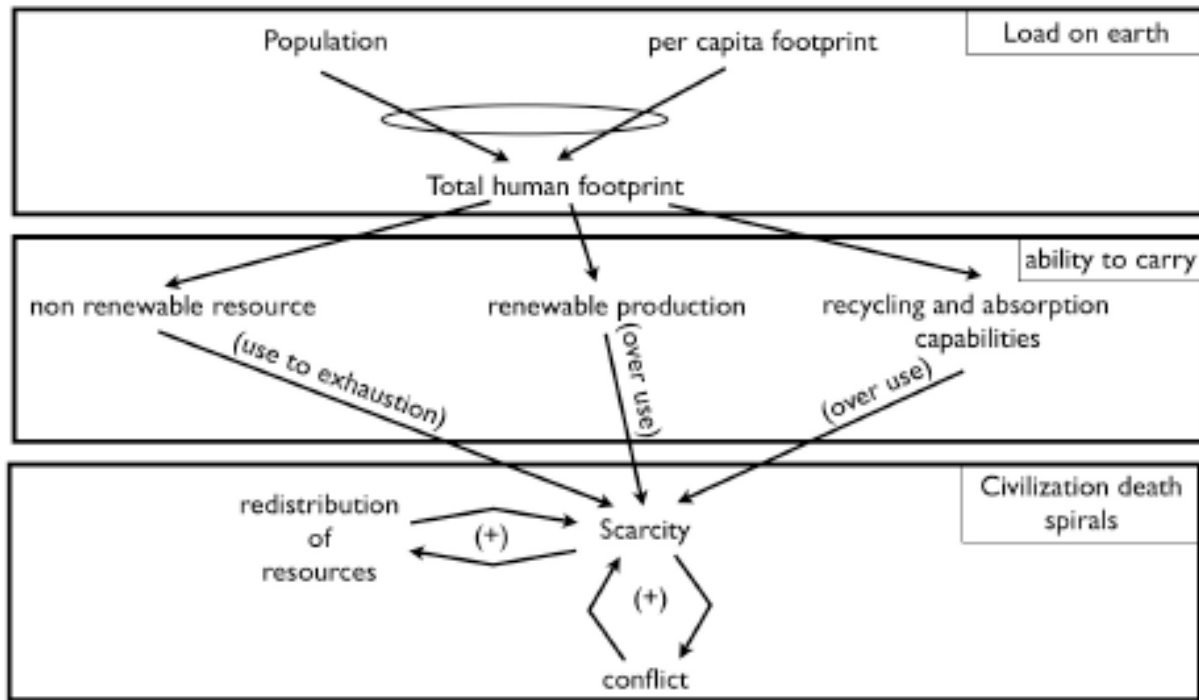
What follows from the end of cheap energy is NOT more people at all...

The cities we have built based on energy have no possible future. All techno-rescues require oil.

We are now into re-settlement.



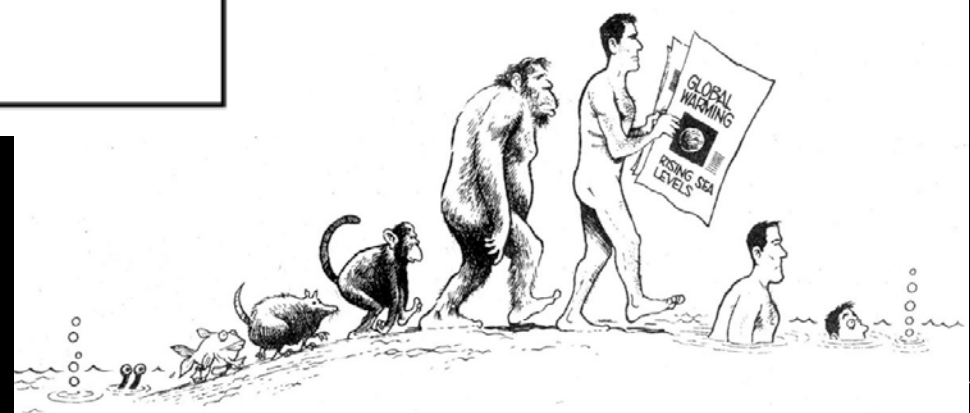
How Civilizations Collapse



Planning for Oil Shock:
New Patterns of Community for Real Sustainability.

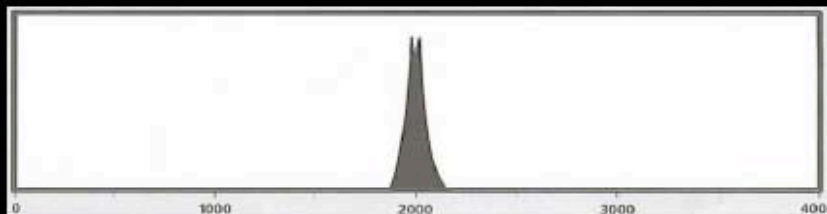
the 3 R's

**Rapid
Radical
Resource Poor**

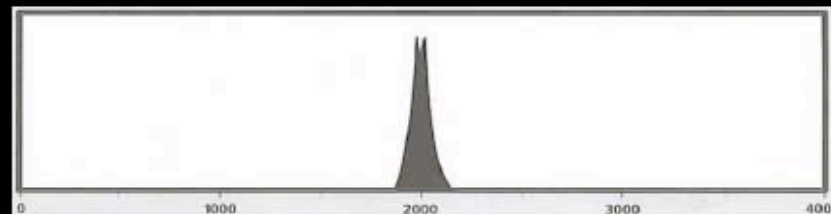


Our Point in Time:

Oil Curve in relation to history:



Human Population too??



Current Culture and Civilization is blip in geological time.

We have harvested 500 millions of years of stored solar energy & wasted it.

The human population explosion matches Hubbert's Curve on oil consumption.

Our numbers pretty well have to follow the oil depletion curve down.

Technical Solutions for energy replacement are not enough, nor reliable.

How do you follow the graceful adjustment and find a soft landing spot?



Abrupt Climate Change

2008:

Climate Change Report, USA
Admission of the worst case IPCC forecasts.

We cannot stop global warming at 2° C

Growth of deserts in mid latitudes

Loss of irrigation water & farmlands

Rising oceans: by 60m in a century

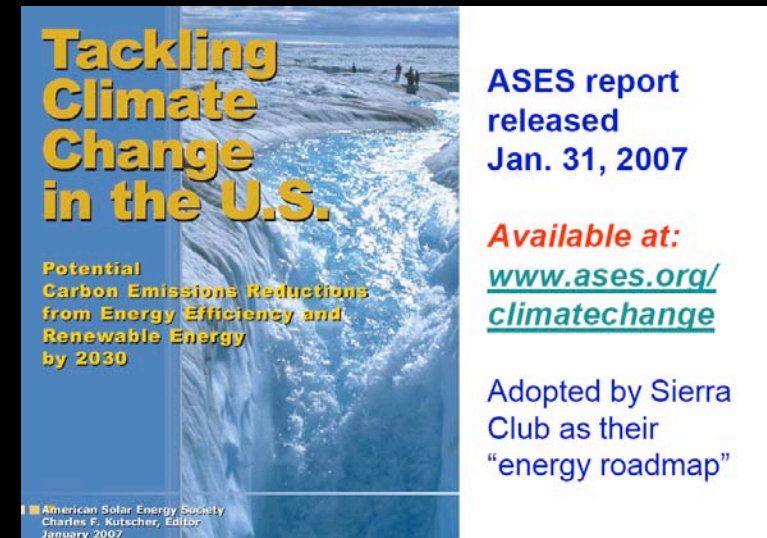
Technical fixes are not viable

There are few positive trade offs

Population crashes are unavoidable

- and meanwhile-

The end of cheap energy and
the loss of key resources
creates an industrial society collapse.



Final Report, Synthesis and Assessment Product 3.4
U.S. Climate Change Science Program

And the Subcommittee on Global Change Research

- U. S. Geological Survey
- National Oceanic and Atmospheric Administration
- National Science Foundation

USGS-CCSP Abrupt Climate Change Federal Advisory Committee

Patrick J. Bartlein, University of Oregon

Edward Brook, Oregon State University

Peter U. Clark, Oregon State University

Edward R. Cook, Columbia University

Thomas L. Delworth, NOAA

Shawn Marshall, University of Calgary

Carrie Morrill, University of Colorado

Richard Seager, Columbia University

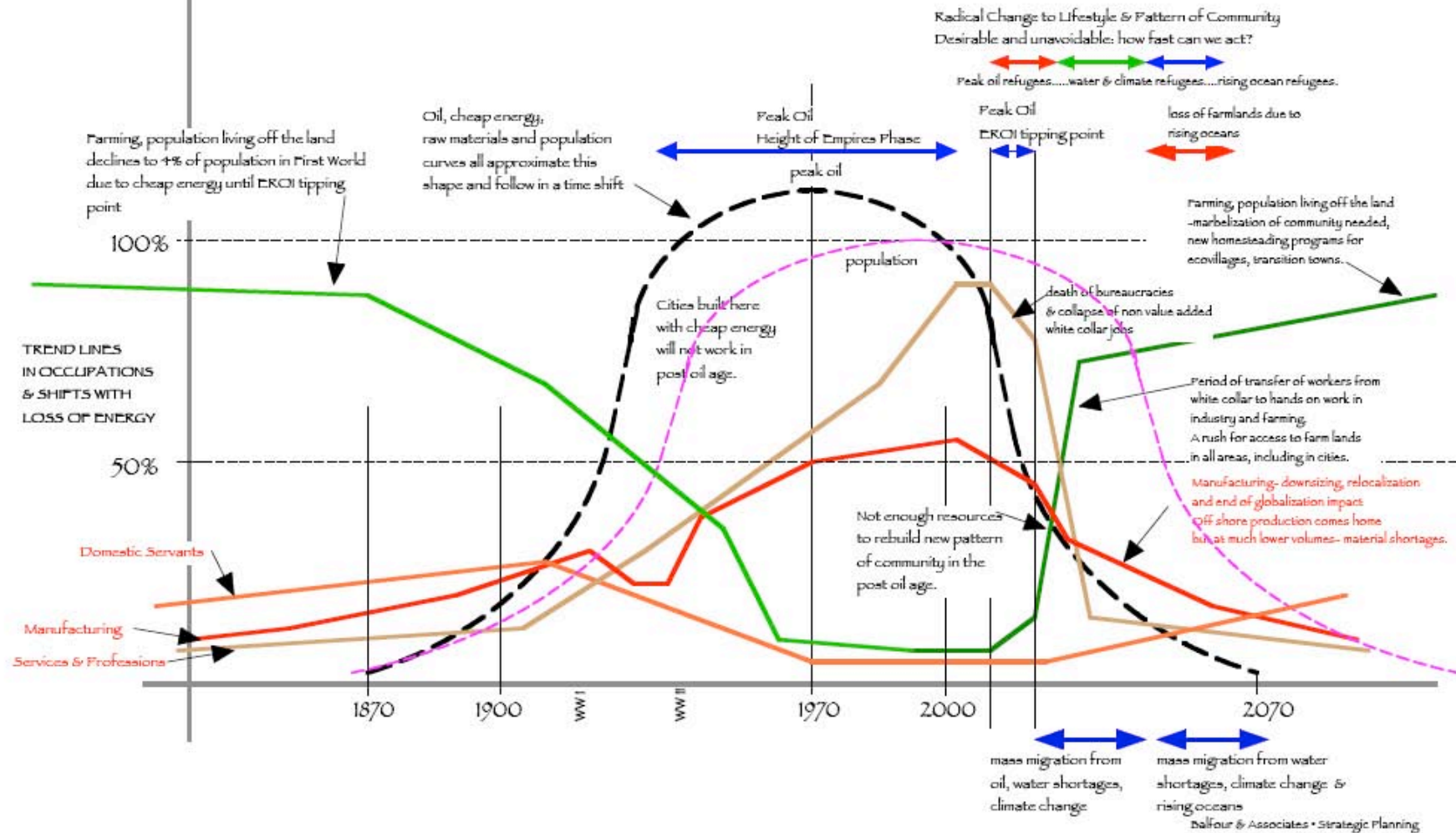
Konrad Steffen, University of Colorado

Andrew J. Weaver, University of Victoria

Robert S. Webb, NOAA



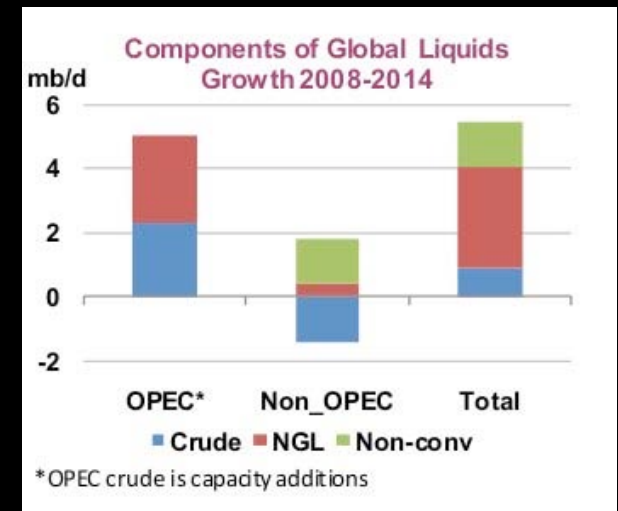
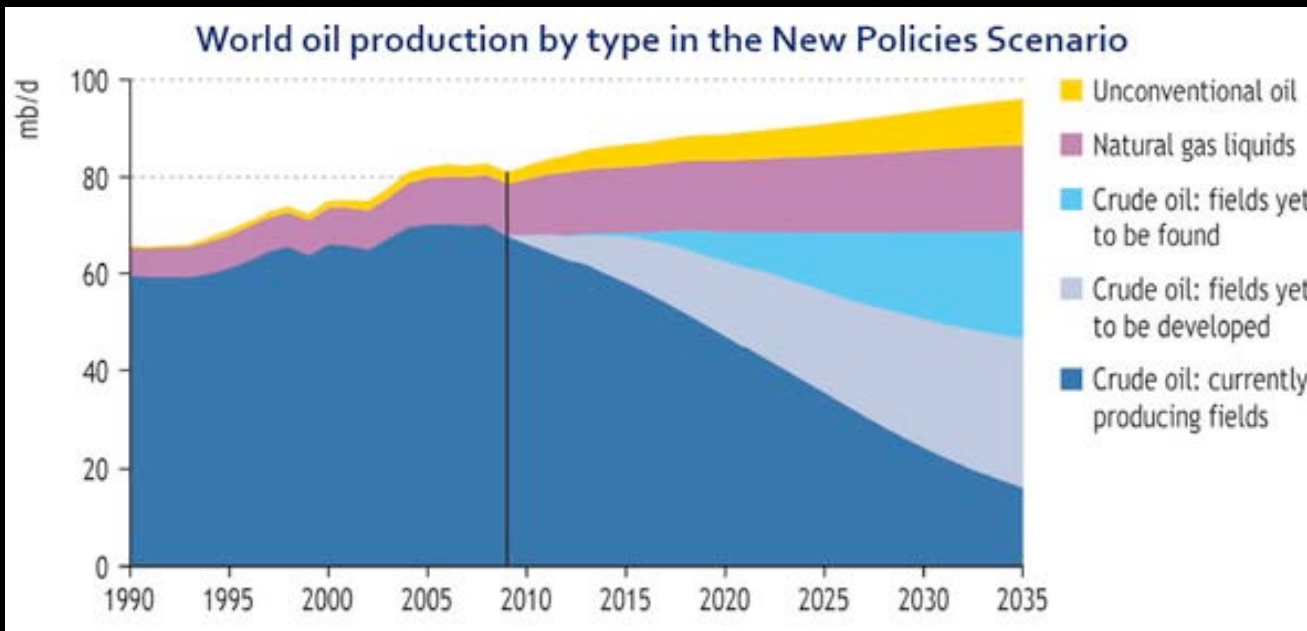
Socio-Economic Transitions in Response to Peak Oil, Climate Change and Mass Migration



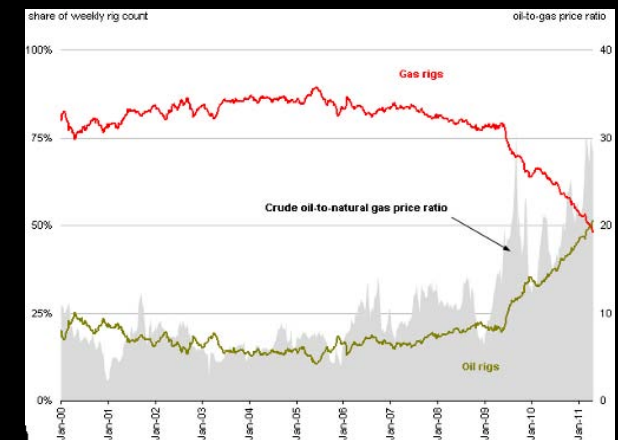
Now What?



Latest oil, IEA 2011.05.11

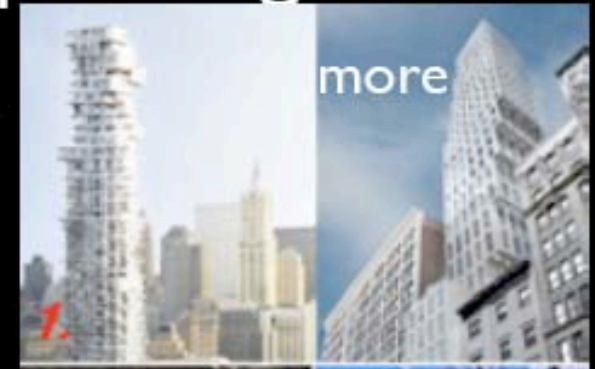


Pattern of community is defined by energy use and availability- now what does an oil designed city do?



Quantum Shift in the End of the Oil Age...

End of an Era: no more linear planning...



more

Psst: there are no resources left to do all of this any more.....





Myth Busting II

Density is the solution? Not always.

There is a size where a city will shortly be too big to keep supplied. (The largest 100 cities for instance.



Green fingers of farm forest and field are needed to make for smaller towns and the green spaces to feed them locally.



Marbelization or a lacework pattern of town with country is a closer to historic sustainable pattern, like Europe, Asia, New England and Quebec townships.





Myth Busting iii

5. We can always import food. Wrong.

The cost of transport exceeds the cost of the food. As we surge through post peak oil pricing, increasingly foods will not be affordable if imported. Food security is based on local supply and control over your most necessary items for life. External current large food supply areas are under threat of climate change and water shortages. Everybody in this case is now at risk of famine unless we move to local food security immediately.



Myth Busting iv



J. Hatch Pix

Vancouver has no place to grow. Wrong

97% of BC is hills and mountains.

only 3% of BC is farmland

If even 10% of the hill areas are
buildable, and they are,
this is still 3x the area of the farmlands.



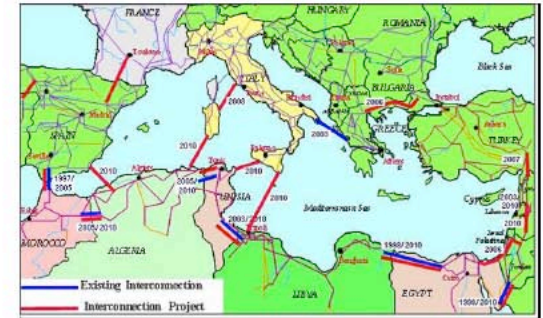
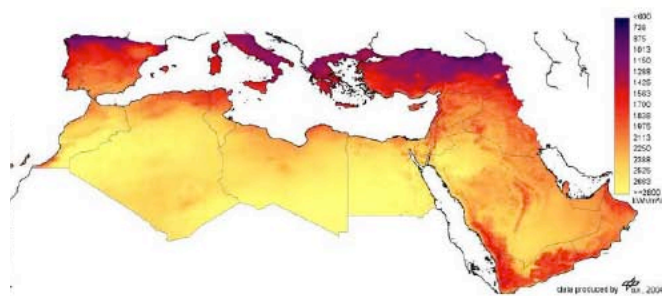
CSP Savings

- Dispatchable power with 6 hr of storage
- 80,000 MW, 6 to 13¢/kWh

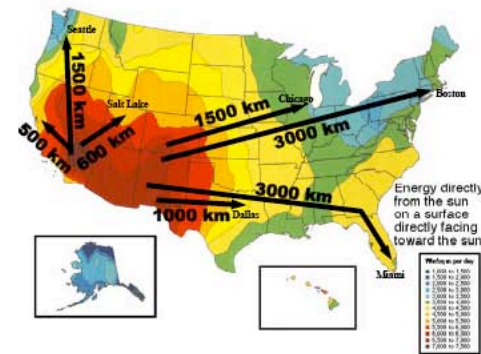
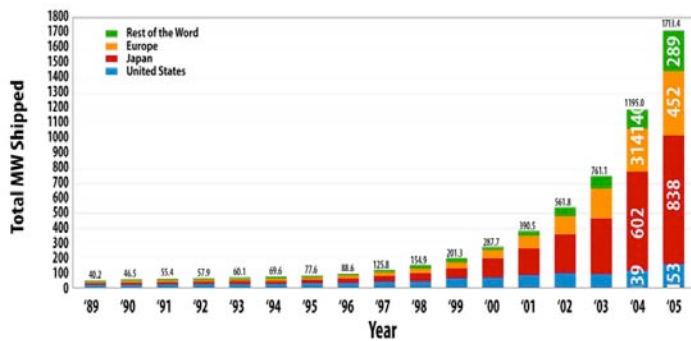


Savings: 63 MtC/yr

But...The Vulnerability of Grids Long Distance Transmission



Worldwide PV Shipments



Concentrating Solar Power for the Mediterranean Region," German Aerospace Center (DLR), 2005



Biomess to Biomass...

Biomass Power Savings

- Wood residues and municipal discards
- 45,000 MW
- 5 to 8¢/kWh



Savings: 75 MtC/yr

Biomass and Biofuels

Wood chips



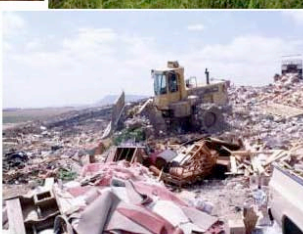
Switch grass



Poplars



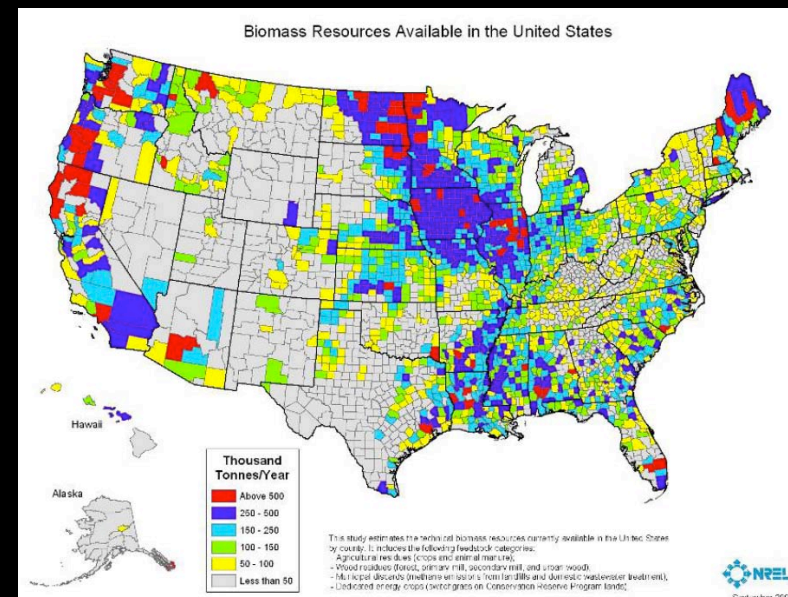
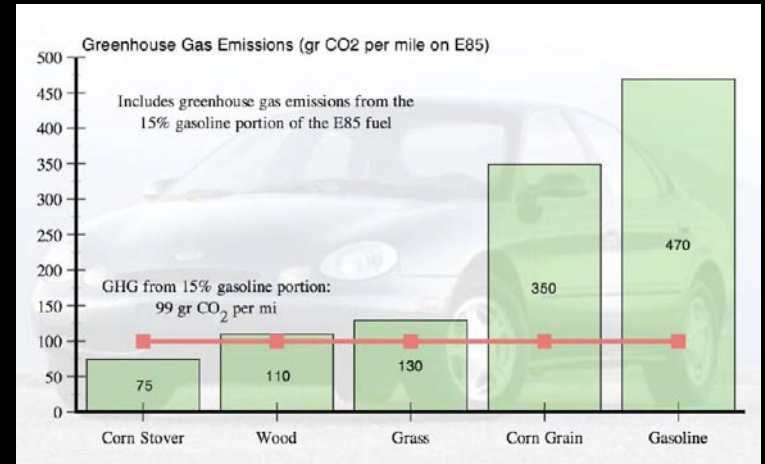
Fats and Oils



Municipal solid waste

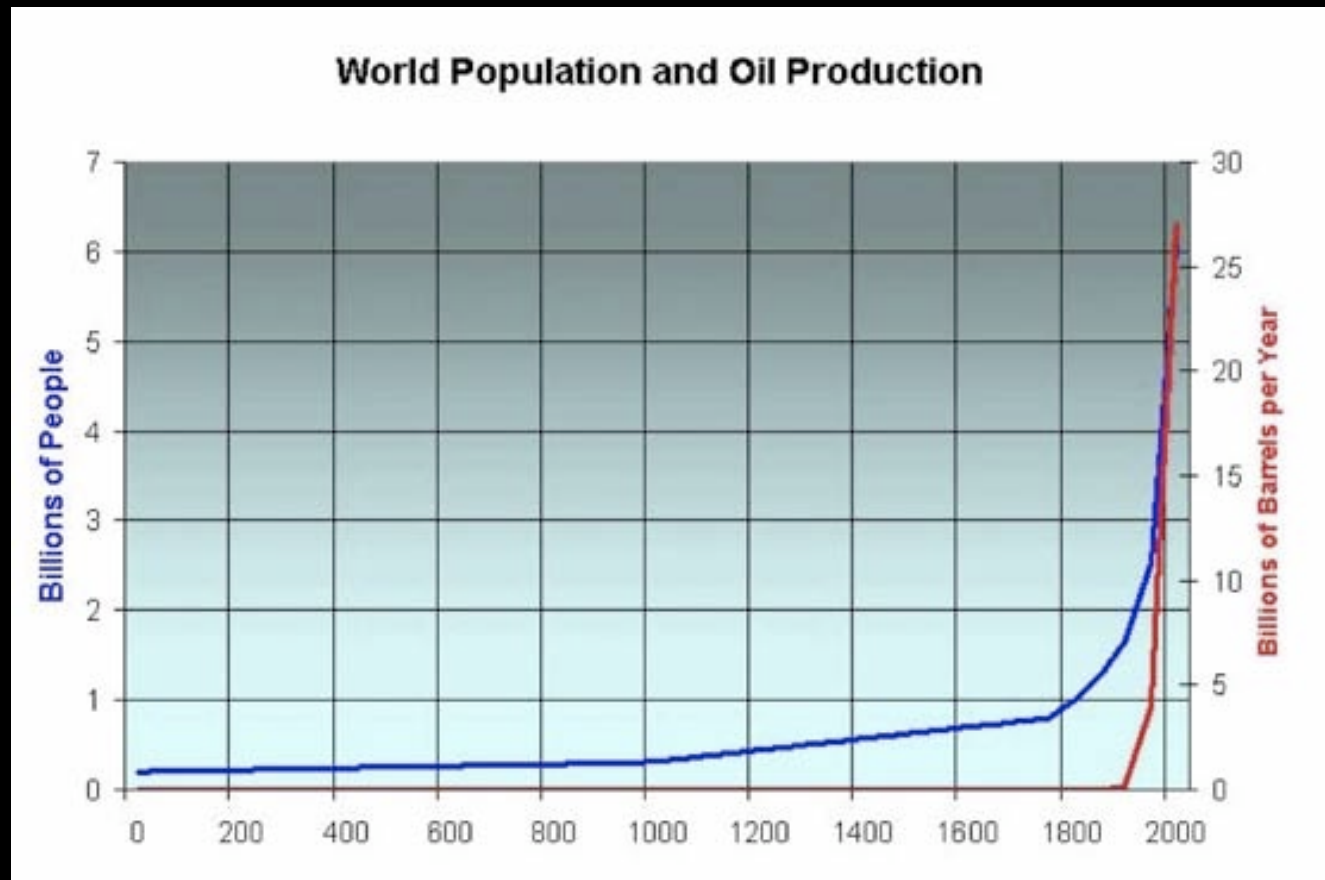


Corn Stover



Global Impacts Summary 2010

- Too large a population for one planet and modern consumption makes it all much much worse. Downshifting is part of solution.



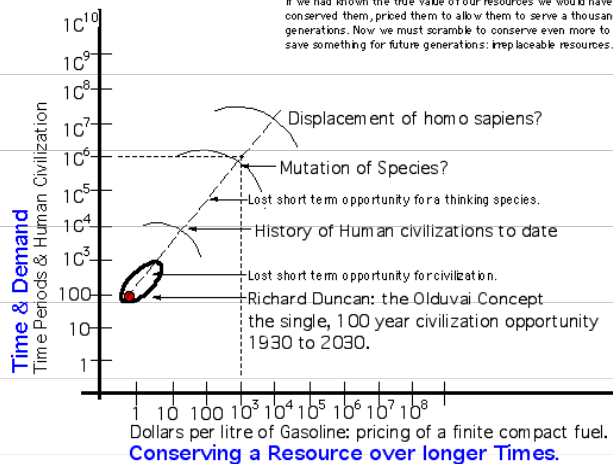
Peak
People



Cumulative Tipping Points- 3 views

The Olduvai Civilization and the end of cheap energy. Why gasoline should have been taxed at a "thousand dollars a litre".

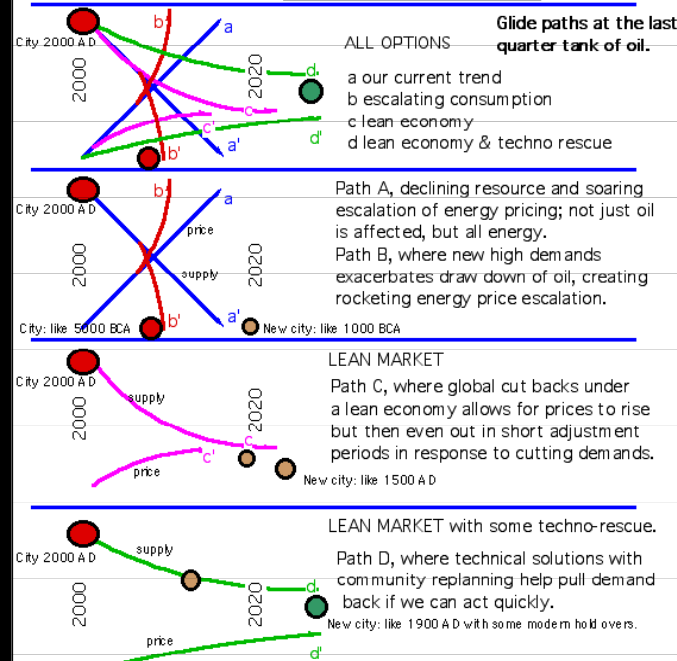
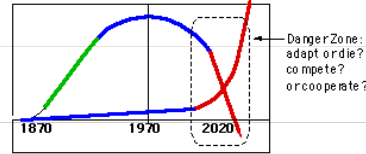
The benefits of hindsight:
If we had known the true value of our resources we would have conserved them, priced them to allow them to serve a thousand generations. Now we must scramble to conserve even more to save something for future generations: irreplaceable resources.



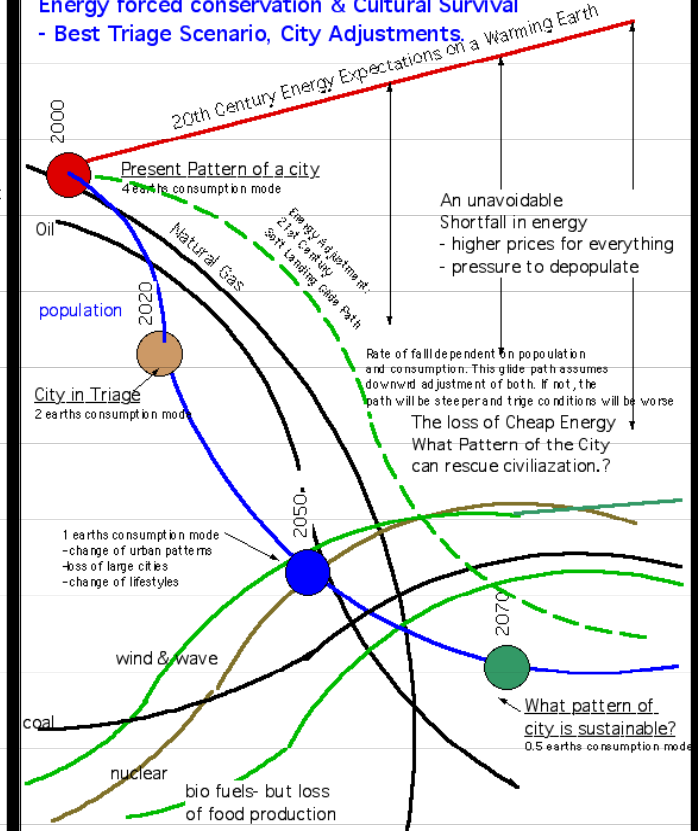
Interpretation:
Current market of 100 years, short term thinking, loss of opportunity
A thinking civilization would have planned & charged on a 10 to 100 year pricing
A planning for survival species would have charged on a thousand to a million year demand horizon
Richard Duncan, the Olduvai theory, we blew it all in a century with nothing left of significance.
Issue, can we recover fast enough to at least conserve what is left?
For those that bank on Technology Rescues, that is extremely dangerous gamble.
All alternate technologies require oil to make the machinery to make them work.

Paths of Energy Adjustments and Impact on City & Culture

2010 to 2020
the last gasp of
Cheap Energy



Energy forced conservation & Cultural Survival - Best Triage Scenario, City Adjustments



- Burn out of energy supplies, loss of land and water triggers failure of natural systems and climate change becomes erratic.



What we are doing/not doing today.

- This SSP session will deal with buildings and pattern of community we have control over, the ones we have contributed to the system failure.
- For today's session we will ignore the larger scale predictions of Galactic Equator transit, Lithosphere slip, and Near Earth Objects.
- But we will deal with the intermediate risks created by our past energy waste, meaning Ice Sheet collapse, loss of water and food and growth of deserts due in large part to our role in building the Wrong Things in the Wrong Places and traveling with no real purpose.
- The Pattern of community has to radically change and in a short time.



Architects too ignored the warnings.

-blame our clients, blame the system?

- Rachel Carson: Silent Spring
- 1970 Club of Rome: Limits to Growth
- Paul Erlich: The Population Bomb
- Richard Duncan: The Olduvai Theory of One Last Civilization (1930-2030).
- Bill Rees: Ecological Footprint or how we overshot Earth 1.0 by 3 times
- Suzuki: The Nature of Things and how much we have messed up.

AS environmental professionals we knew all of this but contributed to perpetuating overshoot and exhaustion of the planet's last resources.

Now we have a harder job to do.



Architectural Heresy: -Planning Anarchy is better.

- Meme Bombs: Paradigm Collisions. If we do not change some minds in very short order, fewer options are left for even design for survival of culture and less for cities.



A silhouette of a city skyline, likely Chicago, against a sunset sky with orange and blue hues. The skyline features several prominent skyscrapers, including the Willis Tower.

Urban Myths are dangerous

Alpha Cities
are NOT
sustainable.

- Confining people to unsustainable cities assures failure.
(Or succeed as Casino Gulags, Dmitri Orlav.)
- Results: -oil and climate refugees will not survive in cities.

The New Normal: Energy and Alpha City Collapse

SSP34 RAI Vancouver AIBC GH 2011

Balfour + Associates • Strategic Planning



¿Sex & the City?

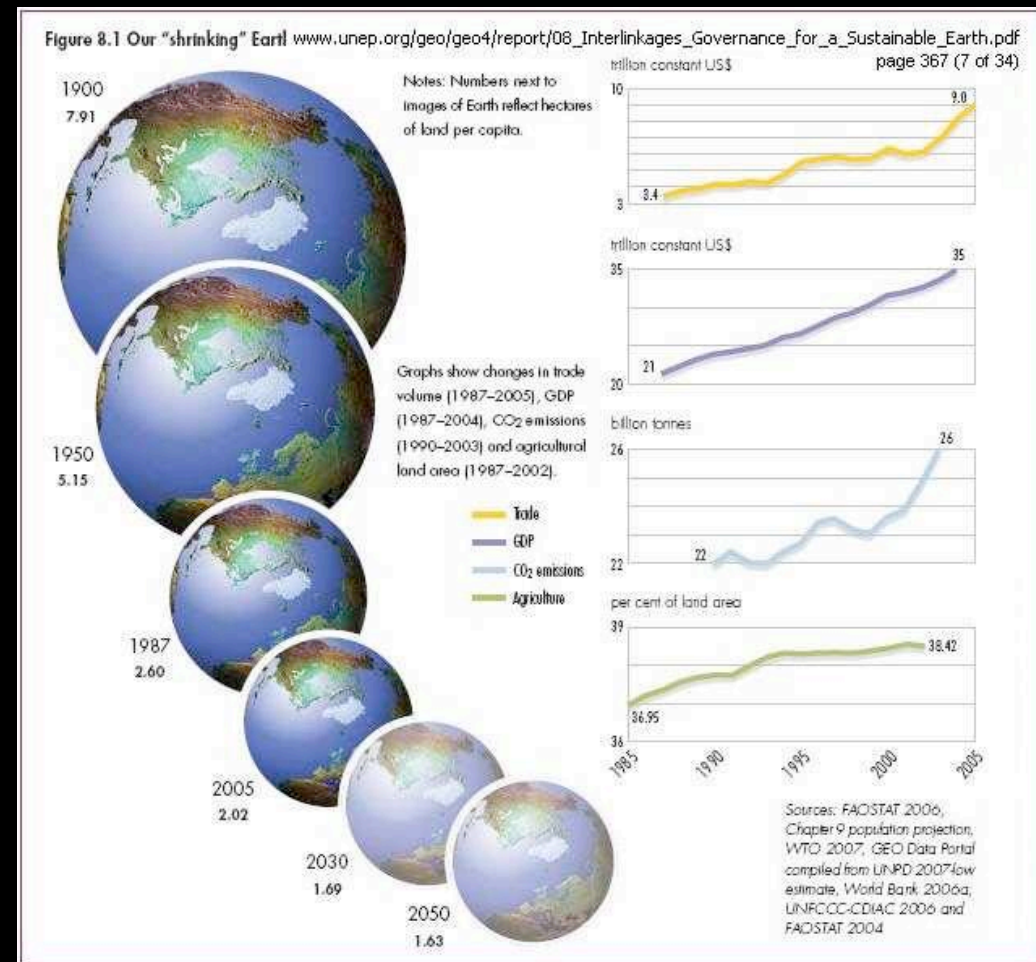
- Architects as Urban Cheerleaders? Not in the near future. Why?
- 200 years of cheap energy come to an end; so does the city.
- Food alone: ten calories of oil to make one calorie of food now ends- transportation ends, green fingers better be nearby or ciity
Triage is not possible and rural resettlement is unavoidable, and at that only for a portion of existing populations.
- Casino Gulags (Orlav) have a short future. Stop building them.
- If YOU really want to be a leader, you will not be doing what you have been doing up to now..... welcome to the Bleeding Edge.



Reminder: Global Impacts 2010+

-Reminder: there is no Earth 2.0

- Peak Oil: the end of cheap energy, failure of urban structure. Since 2005 the oil supply curve and EROI have steepened; end of supplies will happen sooner and energy price shock arrives earlier.
- Climate Change: loss of food & water, mass migration starts.
- Ocean rise: unknown extent and timing, just another factor.



Sustainable Architectural Programme:

Limits to Growth & Design with Nature

- Migration to most verdant and stable areas means we need to plan for these changes in a proactive manner so as to not yet again destroy yet another range of habitat. (Integration with nature.)



SSP: Radical Reformation

Architecture 2011

- WE have built an edifice upon a foundation that is now crumbling.
- The edifice as a whole will collapse. Transition towns are not enough.
- The 200 year foundation is petro-carbon, chiefly oil and gas and coal.
- The 200 year burst of energy consumption in turn has overheated Earth 1.0.
- The edifice at certain risk is not just our buildings but our whole society and lifestyle, this is not sustainable and cannot be maintained as it is.
- Electricity powering our modern cities is one failing lynch pin: most of electricity is from use of carbon fuels. The 'efficiency' of the city is a myth. The footprint lies far beyond. Urban triage planning is now an emergency measure.
- Marbleization: Radical change to the pattern of community is now unavoidable.

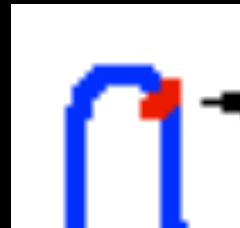


Short term perception, vs reality...

Plan A: Business as Usual even in professions is THE problem:

-now what?

Can you become part of the solution now? -Plan C.



1972-2011 - peak of hump to crisis initiation: your lifetime: Where were YOU in '72?

You were here..

Linear planning:
projecting false
growth into a
contrary future.
(We already use
2.5 earths....)

growth, buy-outs
centralization
specialization
amalgamation
globalization.....

part of the problem

1990 2000 2010....

Olduvai
Period
100 years

10 year false growth
planning: you are part
of the problem right
at the end of the gap.

New roles: deconstruction
& city cannibalization.

100 years
cons



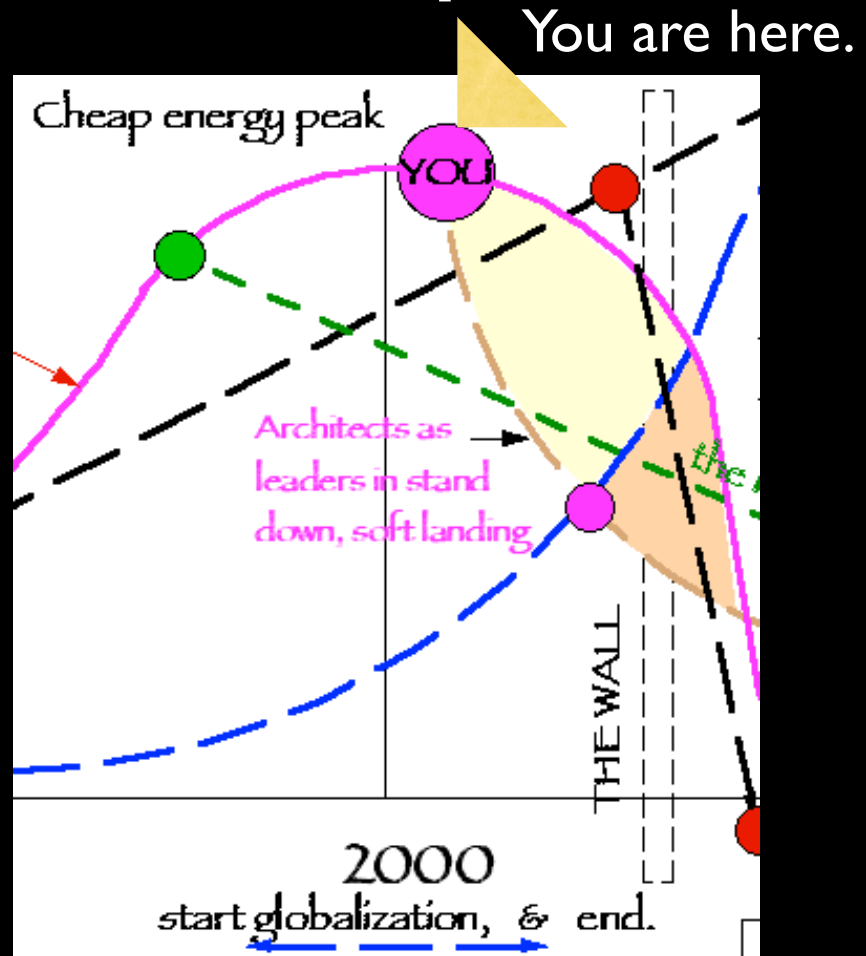
To reconnect to Global Impacts:



You have a couple of years to retrain....
many years to ponder....
many projects to cannabalize.

Harsh words, harsher reality...

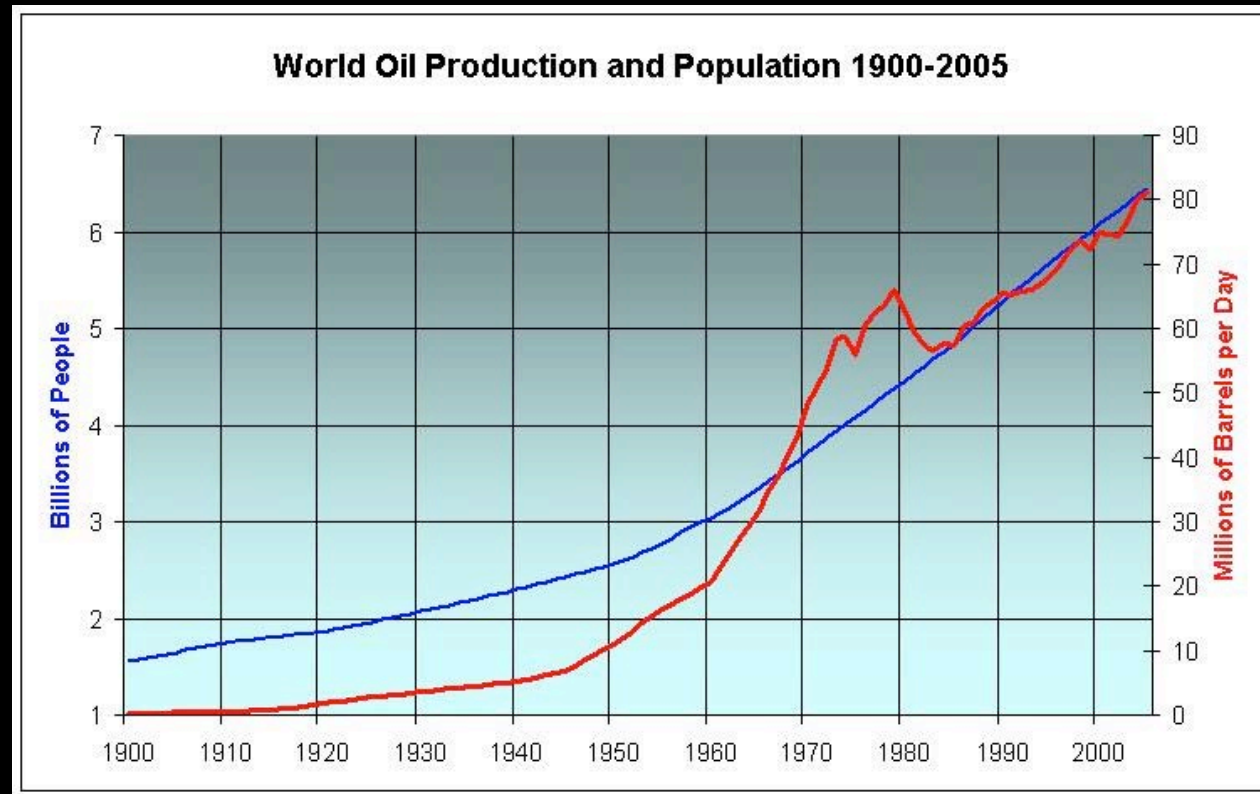
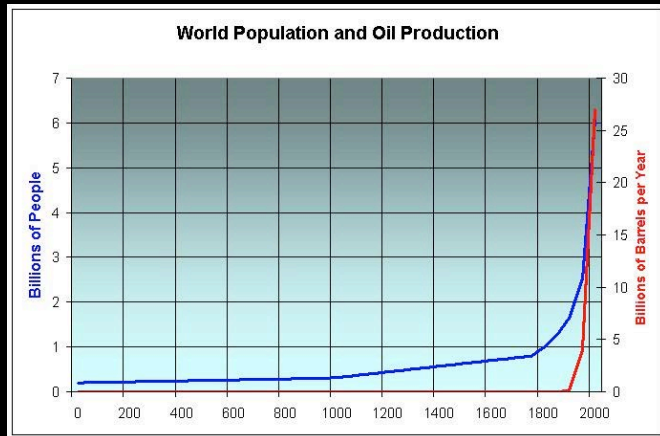
Welcome to BOOT CAMP FOR ARCHITECTS



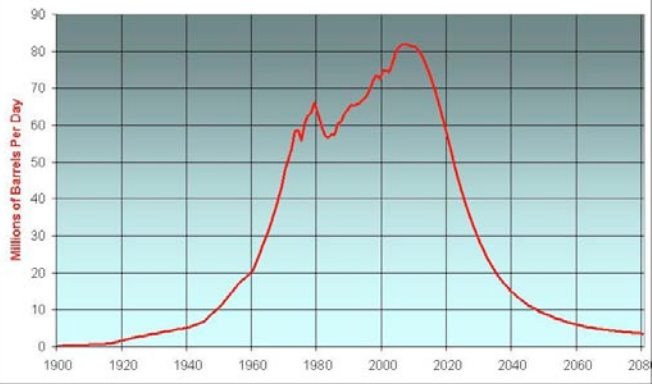
Our human overshoot is due to oil. The end of oil means the loss of human biomass.



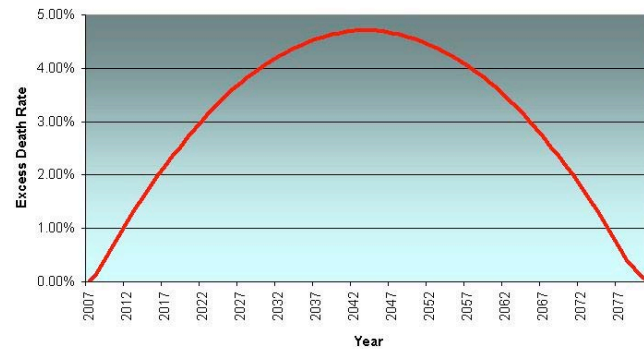
We have NO alternatives.
Sorry, no techno rescue for you...
WASF.



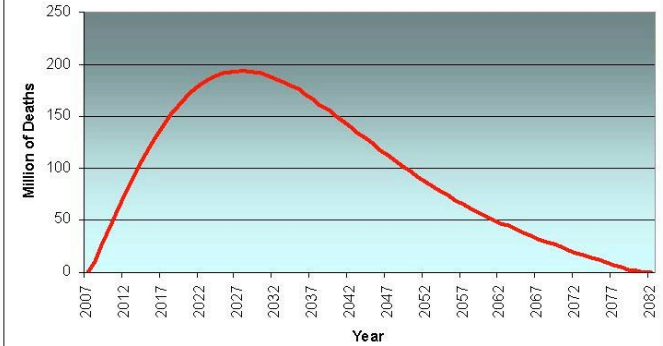
World Oil Production 1900-2080



Excess Death Rate

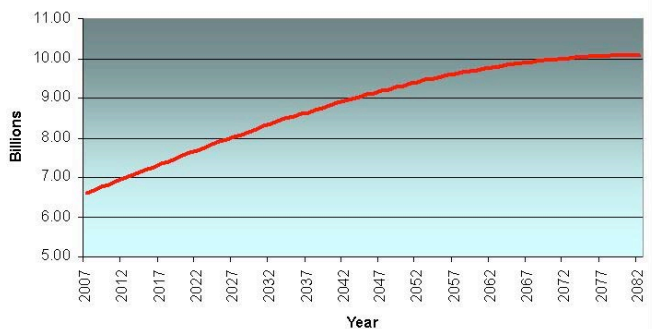


Excess Deaths

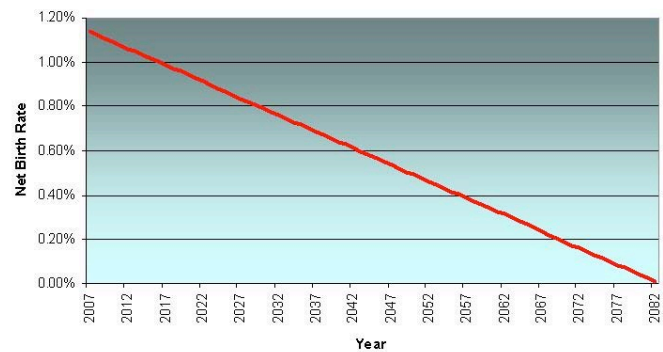


Incipient Reality: wake
up growth junkies.

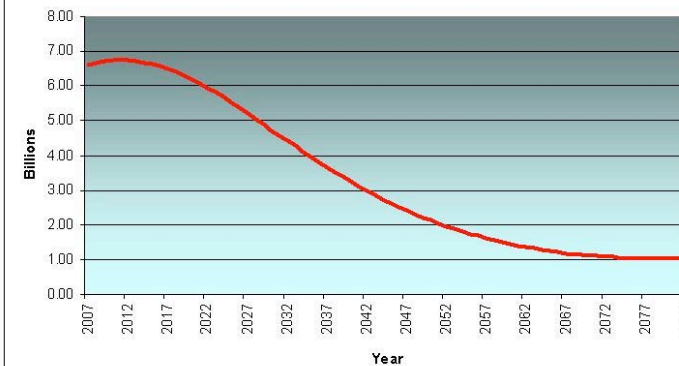
Normal Population Growth



Net Birth Rate



Population With Excess Deaths



Food & your family: reality check.

World Urban Forum 2006 • Agriculture Canada

- an acre of land must be nearby, with good soil and water
- techno options must be low energy.... low EROI.
- learning from the Old World is a good start; lost techniques, going back to smaller scales, rebuilding cooperative community in defense of the family....



First back to basics: do you eat? Cities without farmlands are death traps, so all urban density as Panacea is a planning myth.



Human Bottleneck 2030

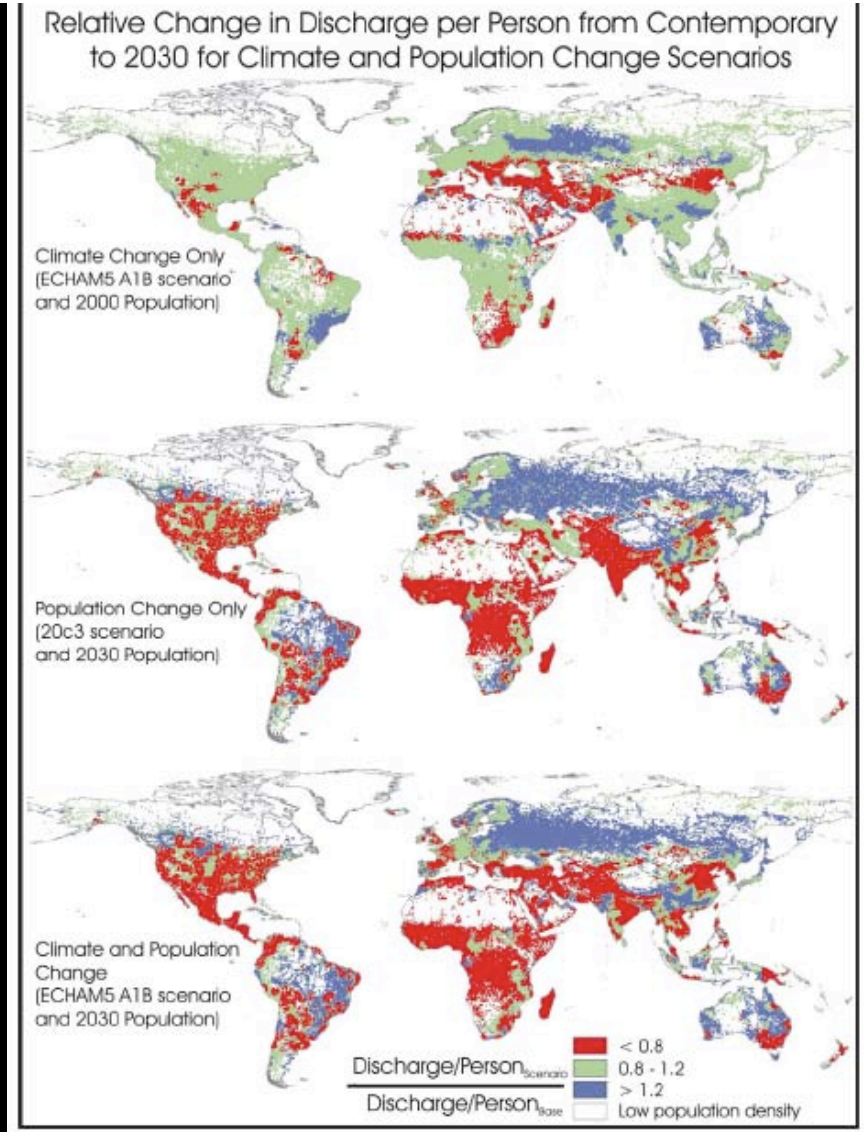
Oil era urban planning does not work in
post oil economy.

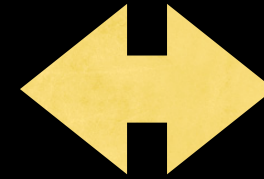
Oil age industrial farming fails with loss of
transport, fertilizers and pesticides.

Access to arable land with return to human
labour input and draught animal aids.

Sorry, no Buck Rogers for you....

SSP34 RAIC Vancouver • AIBC GM 2011



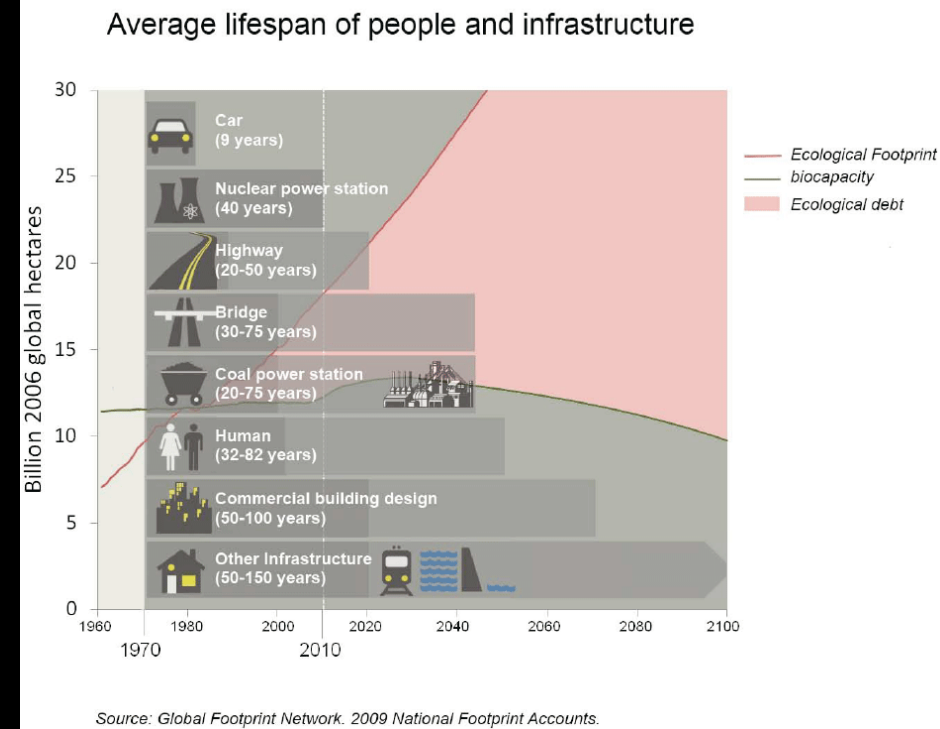


No resources
left to rebuild what
we have already..
oh oh.

This was our future?. no,...

but this is.

Critical Timing



Breaking out of the linear planning box: is it too late?

SSP: Strategic Sustainable Planning

- SSP series started in the Vancouver Planning Commission in 2005 and 2006 as a questioning of the linear planning process & assumptions that growth & current trends are continuous.
- Global Impacts of Peak Oil, Climate Change and the induced food shortages, mass migration and depletion of resources indicate that nothing we now take for granted, can be.
- But we have used the main resources of the earth to create a Pattern of Community that CANNOT function in a post oil economy and society. Wishful thinking does not work without energy.



Why Architects? Because false hope & partial solution messages are not responsible.



- Architects claim to be leaders, particularly in the realm of the environment, doing more with less, achieving form and function and delight.
- We failed in our social role however because the business first model does not allow for social and environmental responsibility.
- Success through Greenwash approaches attempts to restore an appearance of some responsibility without really having to make the necessary changes.
- We are out of time: radical change requires, out of necessity, you must take the lead, increasingly under crisis planning conditions.

Is this fair? -we are just part of a system...



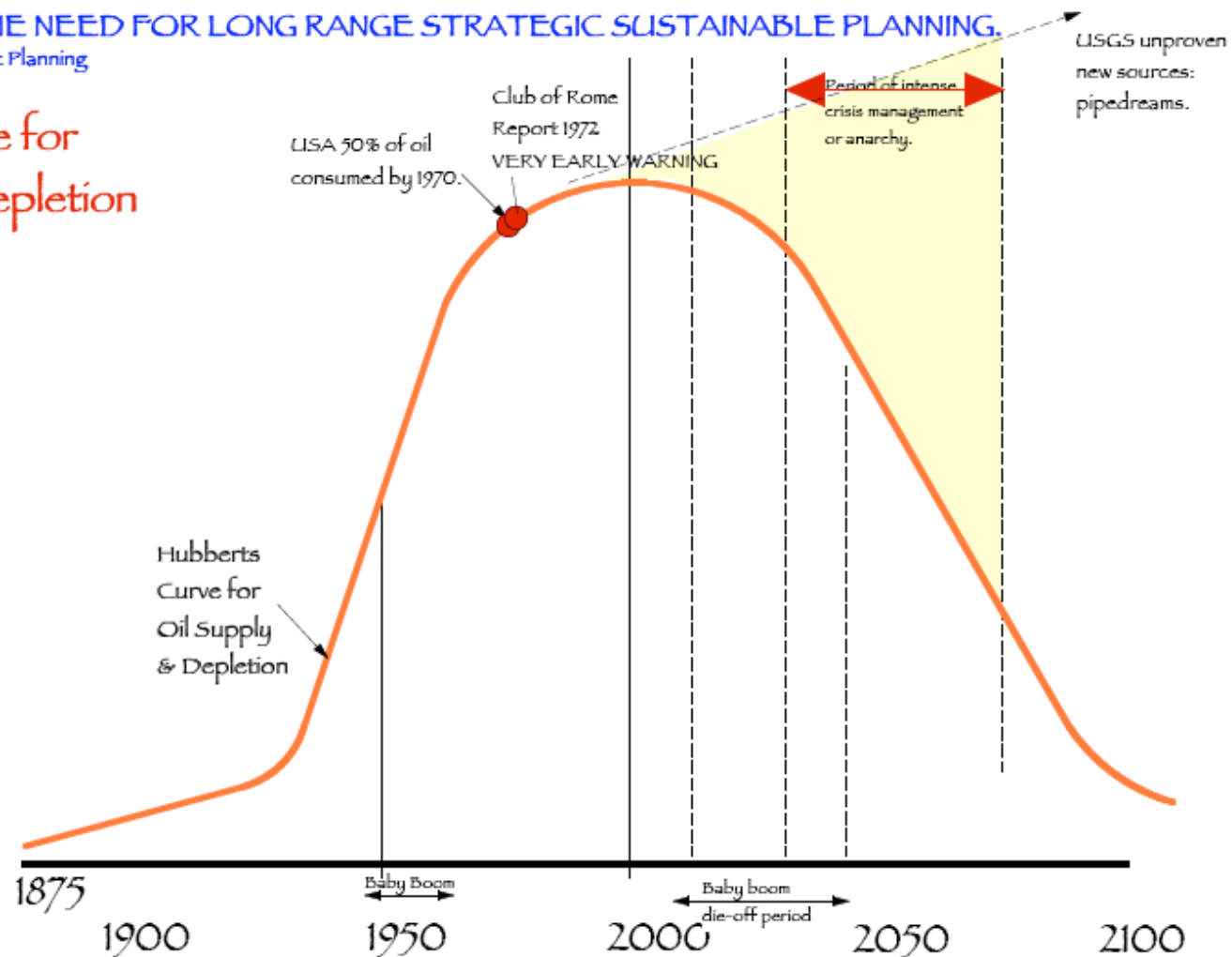
World View



THE DEPLETION OF RESOURCES & THE IMPACT ON PATTERNS OF HUMAN SETTLEMENTS:
THE NEED FOR LONG RANGE STRATEGIC SUSTAINABLE PLANNING.

Balfour & Associates • Strategic Planning
2003.11, after Hubbert, Rees. rev 06.04

Hubberts Curve for
Oil Supply & Depletion



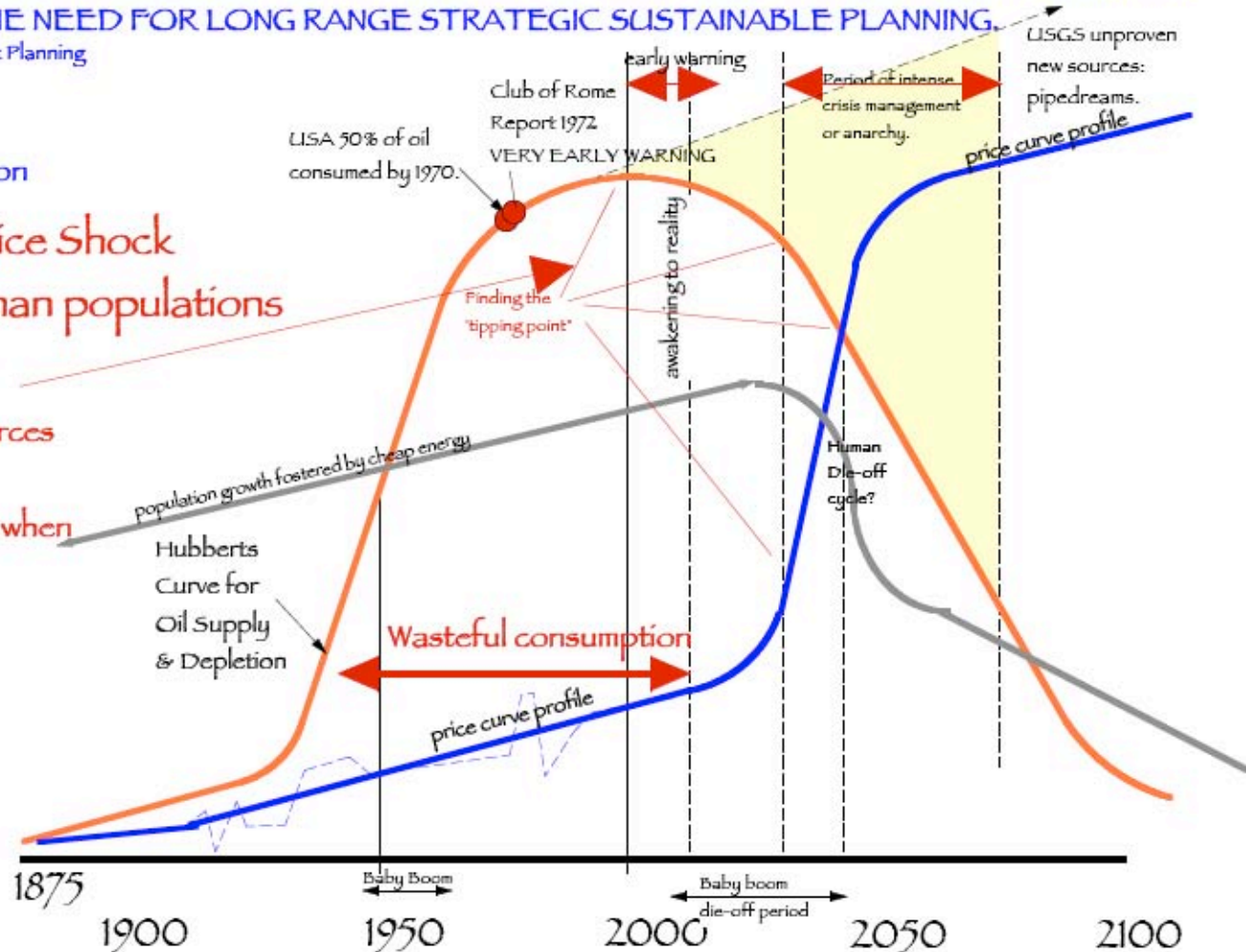
THE DEPLETION OF RESOURCES & THE IMPACT ON PATTERNS OF HUMAN SETTLEMENTS: THE NEED FOR LONG RANGE STRATEGIC SUSTAINABLE PLANNING.

Balfour & Associates • Strategic Planning
2003.11, after Hubbert, Rees, rev 06.04

Hubberts Curve for Oil Supply & Depletion

Adding in Oil Price Shock & impact on human populations

We spent most
of earths resources
to build in ways
not sustainable when
the oil is gone.



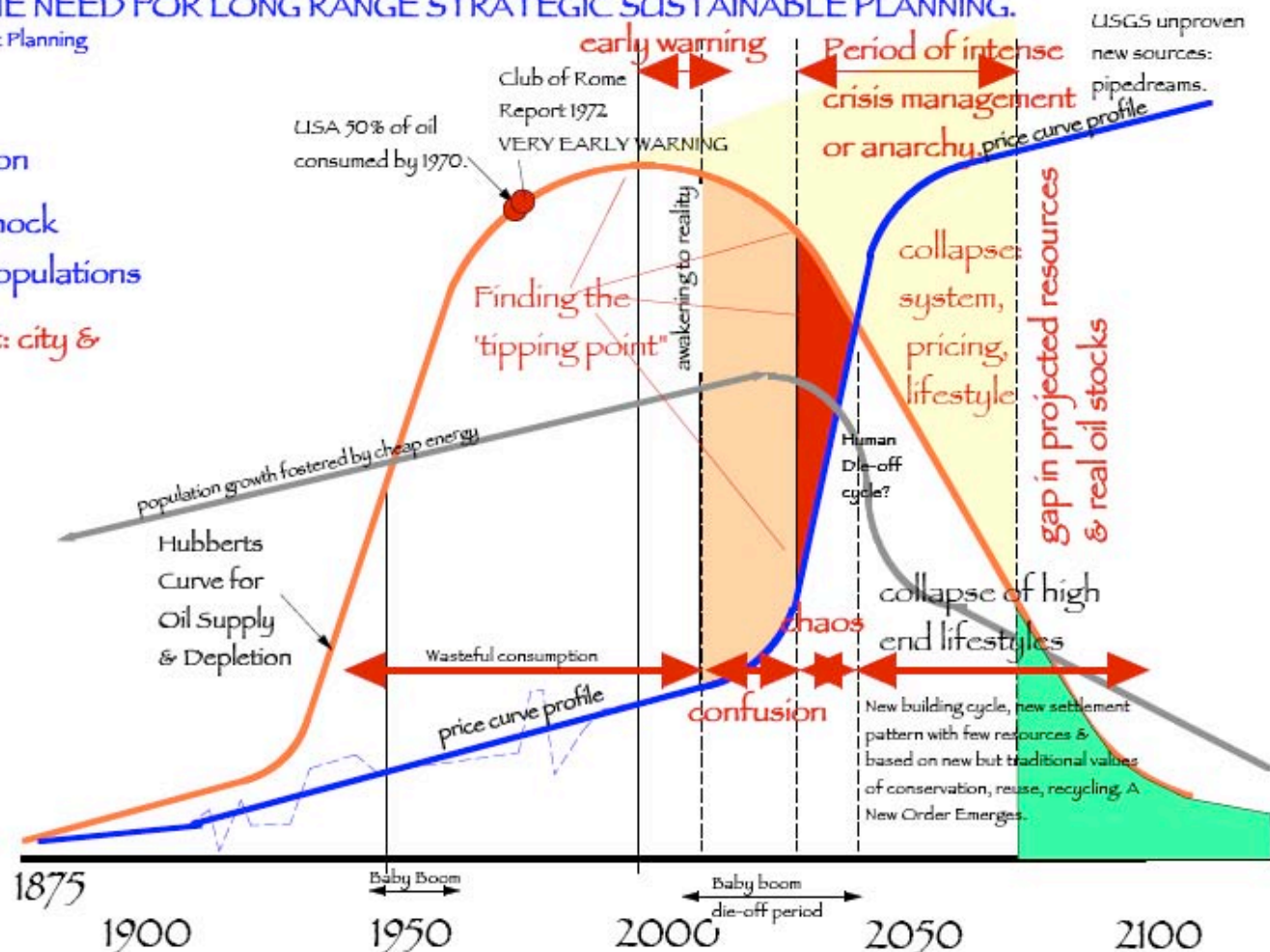
THE DEPLETION OF RESOURCES & THE IMPACT ON PATTERNS OF HUMAN SETTLEMENTS: THE NEED FOR LONG RANGE STRATEGIC SUSTAINABLE PLANNING.

Balfour & Associates • Strategic Planning
2003.11, after Hubbert, Rees. rev 06.04

Hubberts Curve for
Oil Supply & Depletion

Adding in Oil Price Shock
& impact on human populations

Adding Social Impact: city &
culture.



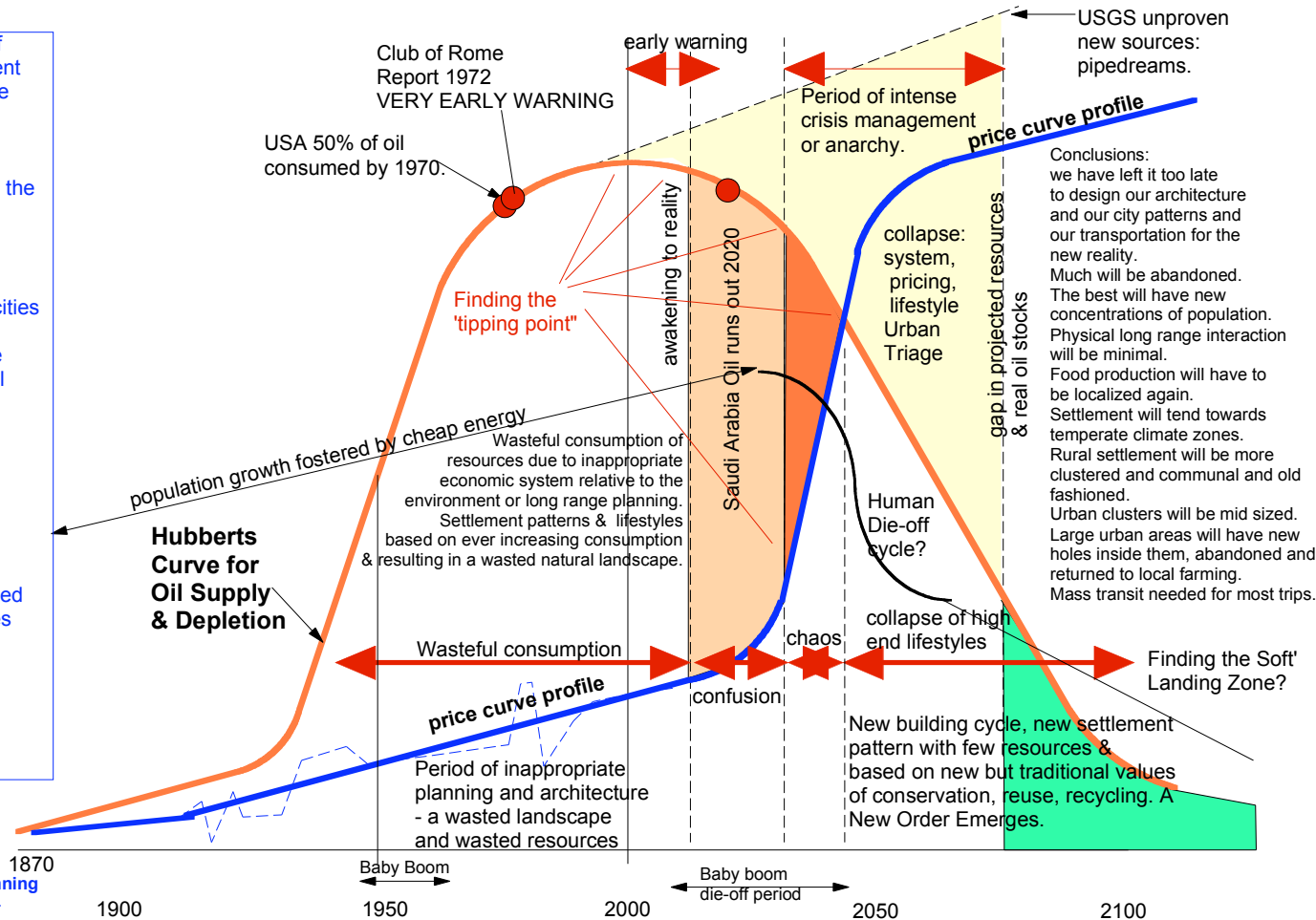
Hubberts Curve & Sociology Strategic Sustainable Planning 2005

THE DEPLETION OF RESOURCES & THE IMPACT ON PATTERNS OF HUMAN SETTLEMENTS: THE NEED FOR LONG RANGE STRATEGIC SUSTAINABLE PLANNING.

We are neglecting the design of appropriate patterns of settlement & transportation systems for the fast approaching new reality of energy scarcity & resource depletion.

We need strategies to deal with the following new realities:

- settlements will tend to be located in temperate climate zones & on higher ground.
- large sections of our existing cities will be abandoned as they are unsustainable. New appropriate concentrations of population will emerge as physical long range interaction becomes minimal.
- food production will return to restricted smaller areas and serving local needs.
- mass transit will be used for inter and intra city movement of people & goods.
- settlements will be compromised of smaller towns, smaller houses & narrower streets.
- localized industry, farming & market return. Proximity to food production, social networks & natural reserves will mark points of new community.



The impact on city & culture:
Oil age bylaws,
markets &
design just do
not work: -
change the
pattern of
community
or die.

The scariest
diagram....Jon Cooksey,
How to Boil a Frog.

Supply lines to Unmarbleized Cities Collapse.

Emulating Napoleon in Moscow



Alpha Cities have less than 3 days supply of food.

Oil depended transport of food stretches world wide, but not in the near future.

Food now taking ten times the calories in oil input will just not be possible.

The analogy fits.

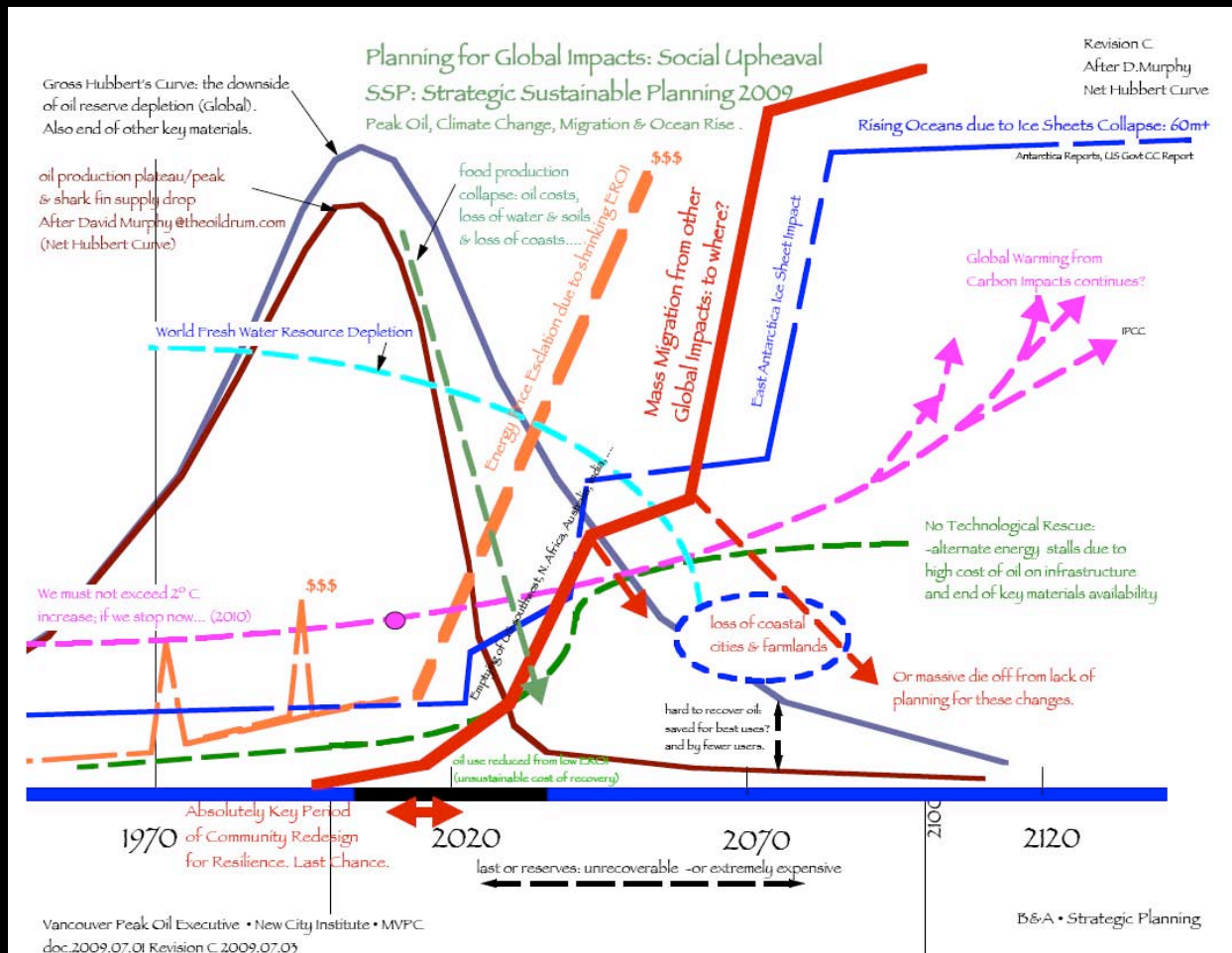




Feel good slide

Combined Planning Impacts: updated 2010



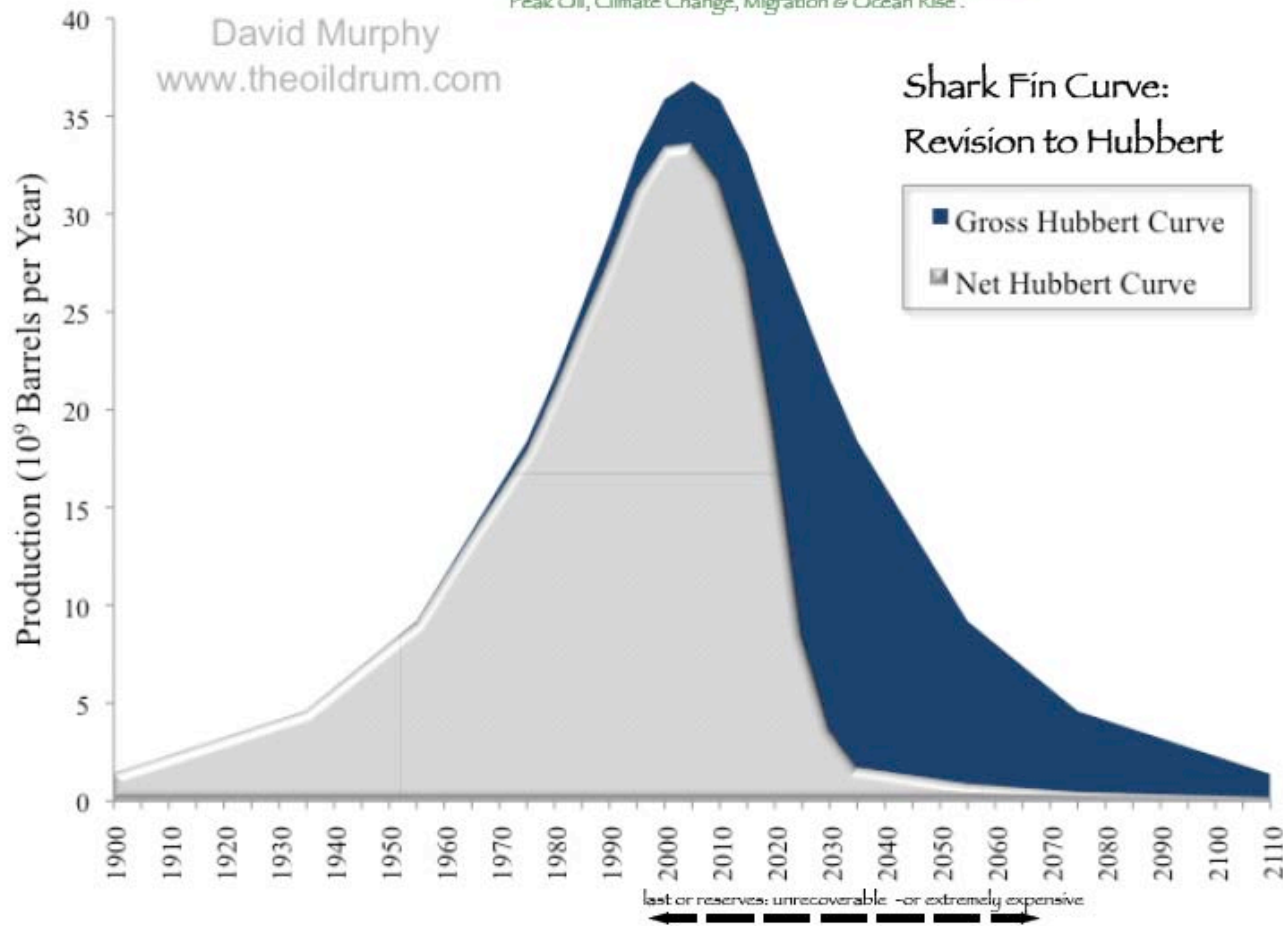


Adjustment
period for any
soft landing is
now much
shorter: options
are
reduced the
longer we
put off needed
action.



Planning for Global Impacts: Social Upheaval
 SSP: Strategic Sustainable Planning 2009
 Peak Oil, Climate Change, Migration & Ocean Rise .

David Murphy
 www.theoildrum.com



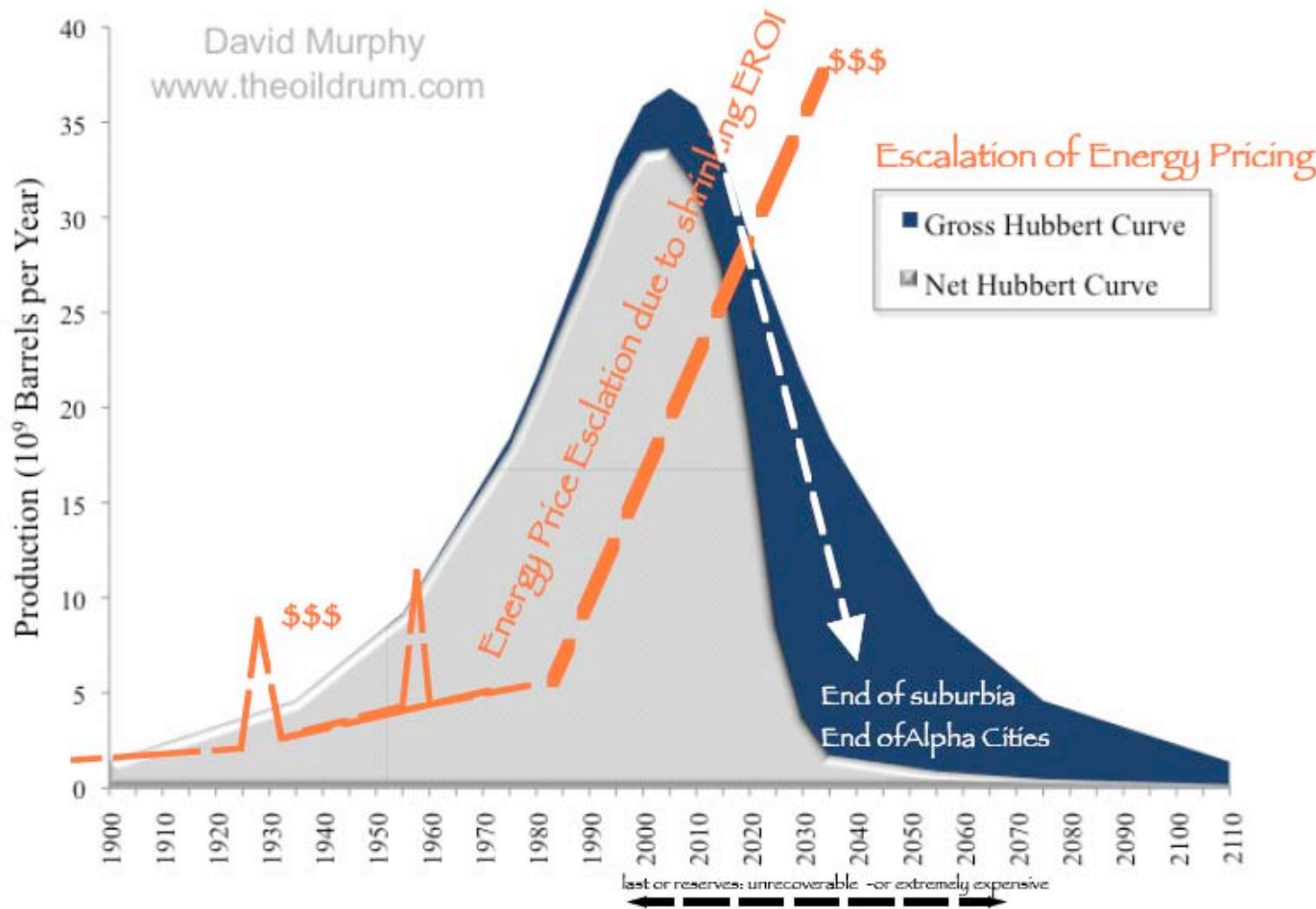
Vancouver Peak Oil Executive • New City Institute • MVPC
 doc.2009.07.01 Revision C.2009.07.05

B&A • Strategic Planning



Adjusting Hubbert for Third World Energy Shifts

Revision C.
After D. Murphy
Net Hubbert Curve

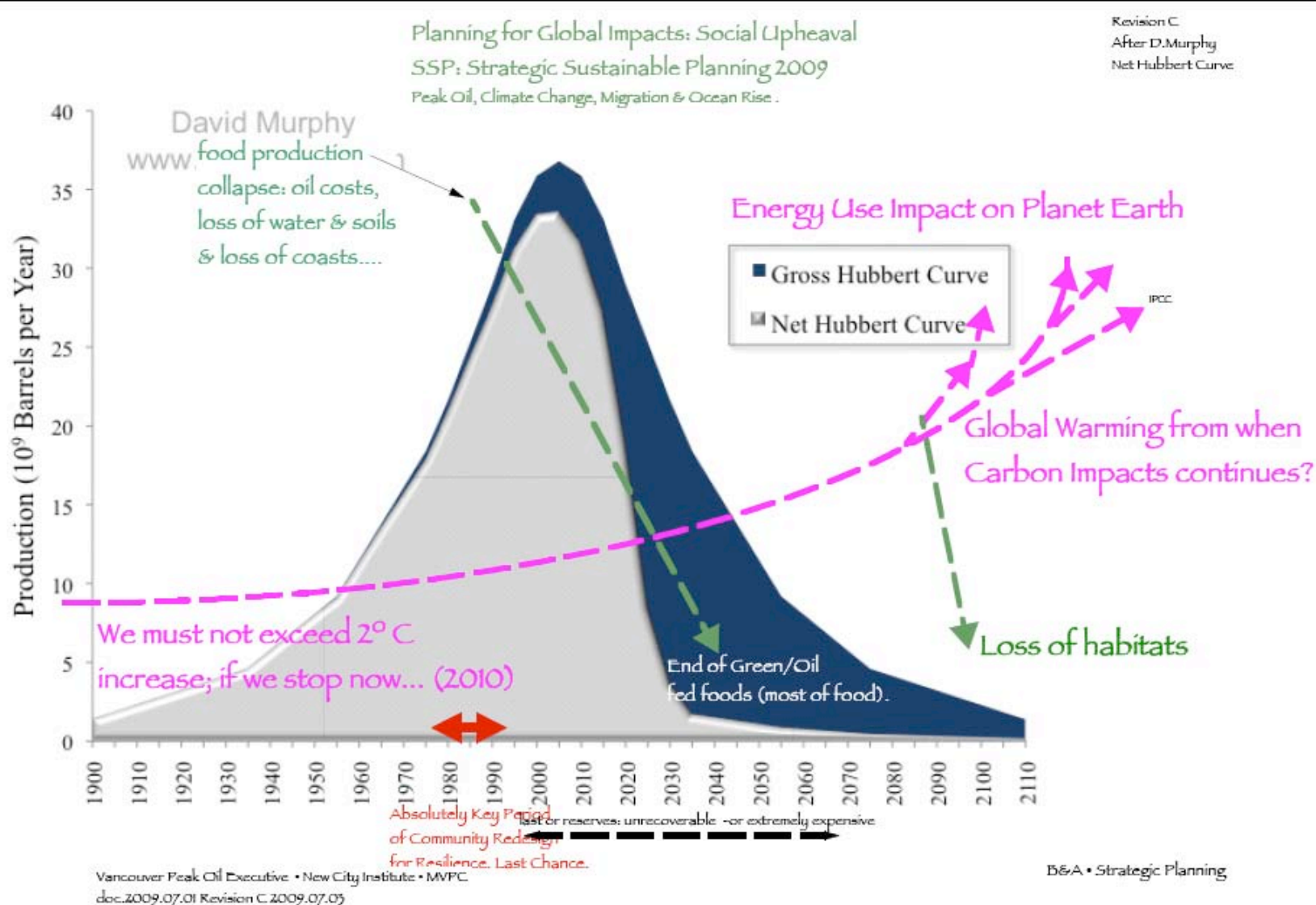


Vancouver Peak Oil Executive • New City Institute • MVPC
doc.2009.07.01 Revision C.2009.07.05

B&A • Strategic Planning



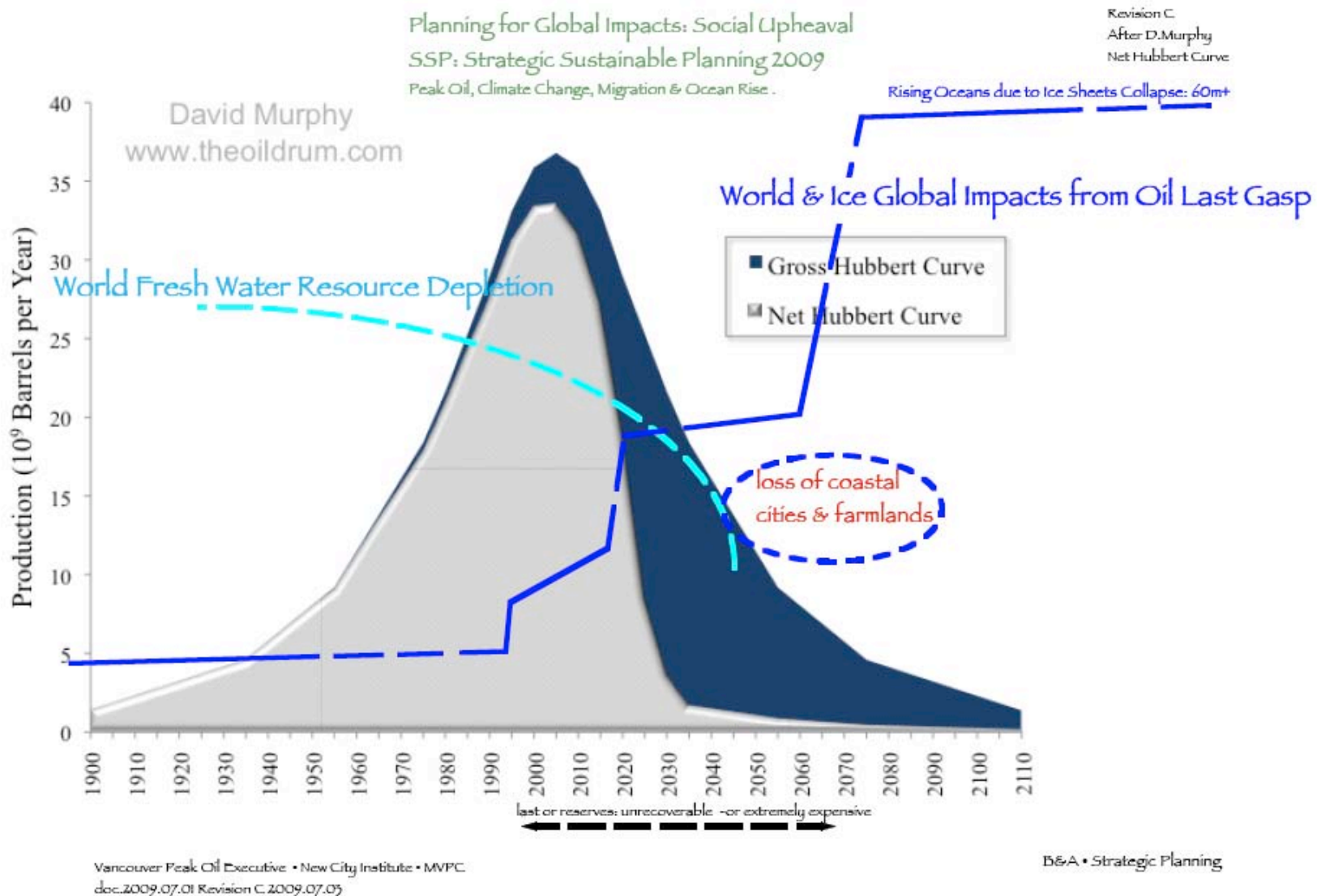
Economy 101:
Energy Price Shocks
End of Oil Age Land Uses
Death of Suburbia
Death of Alpha Cities



Human & Energy
Impact on Earth:

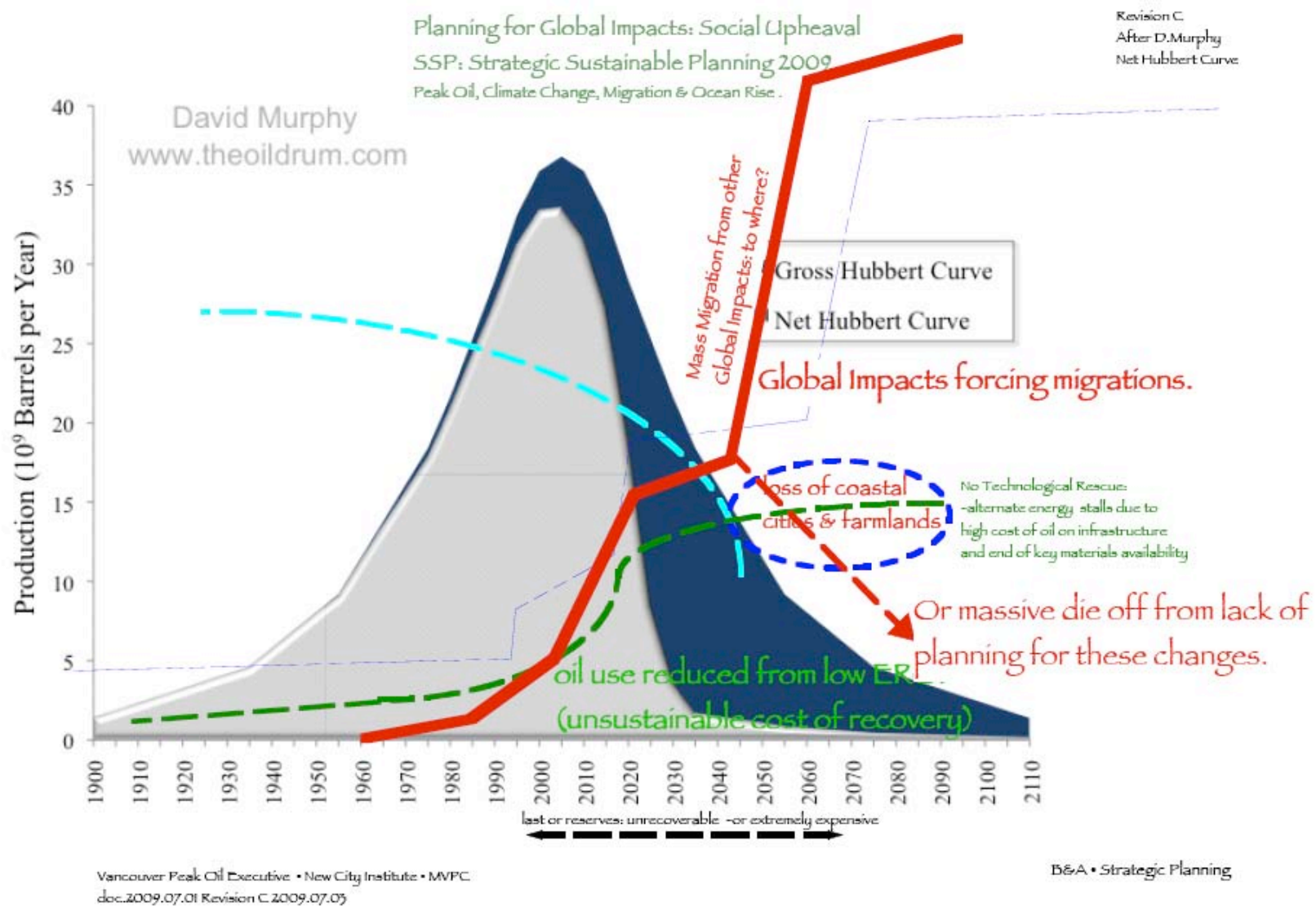
Which ends first?





Water & Ice: Human Impact

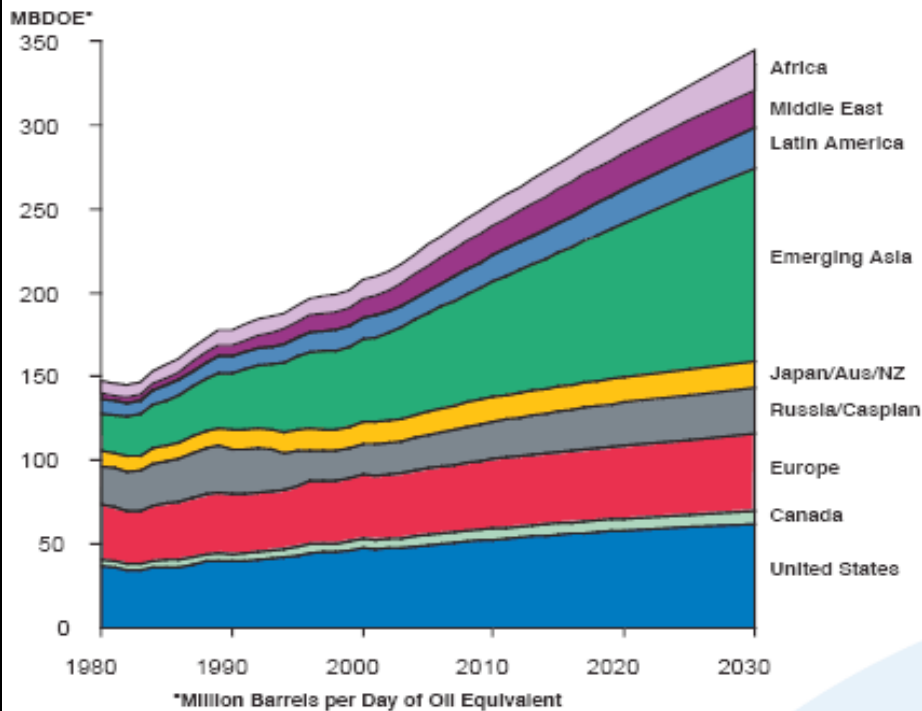




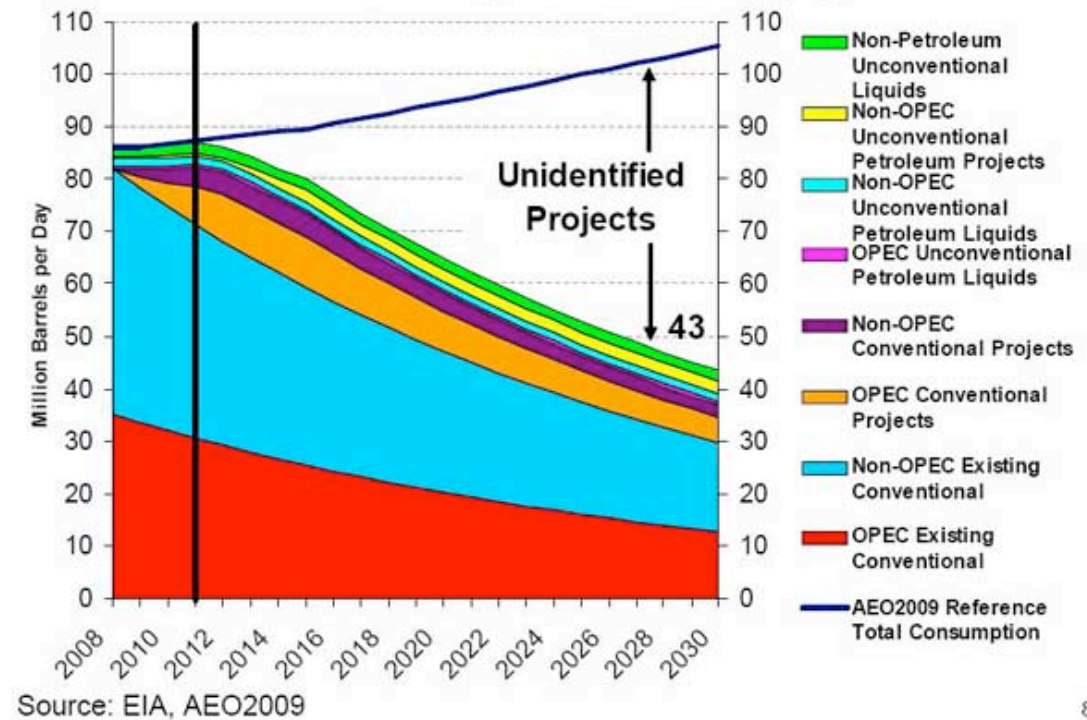
Mass Migration & Rural Resettlement



World Energy Demand



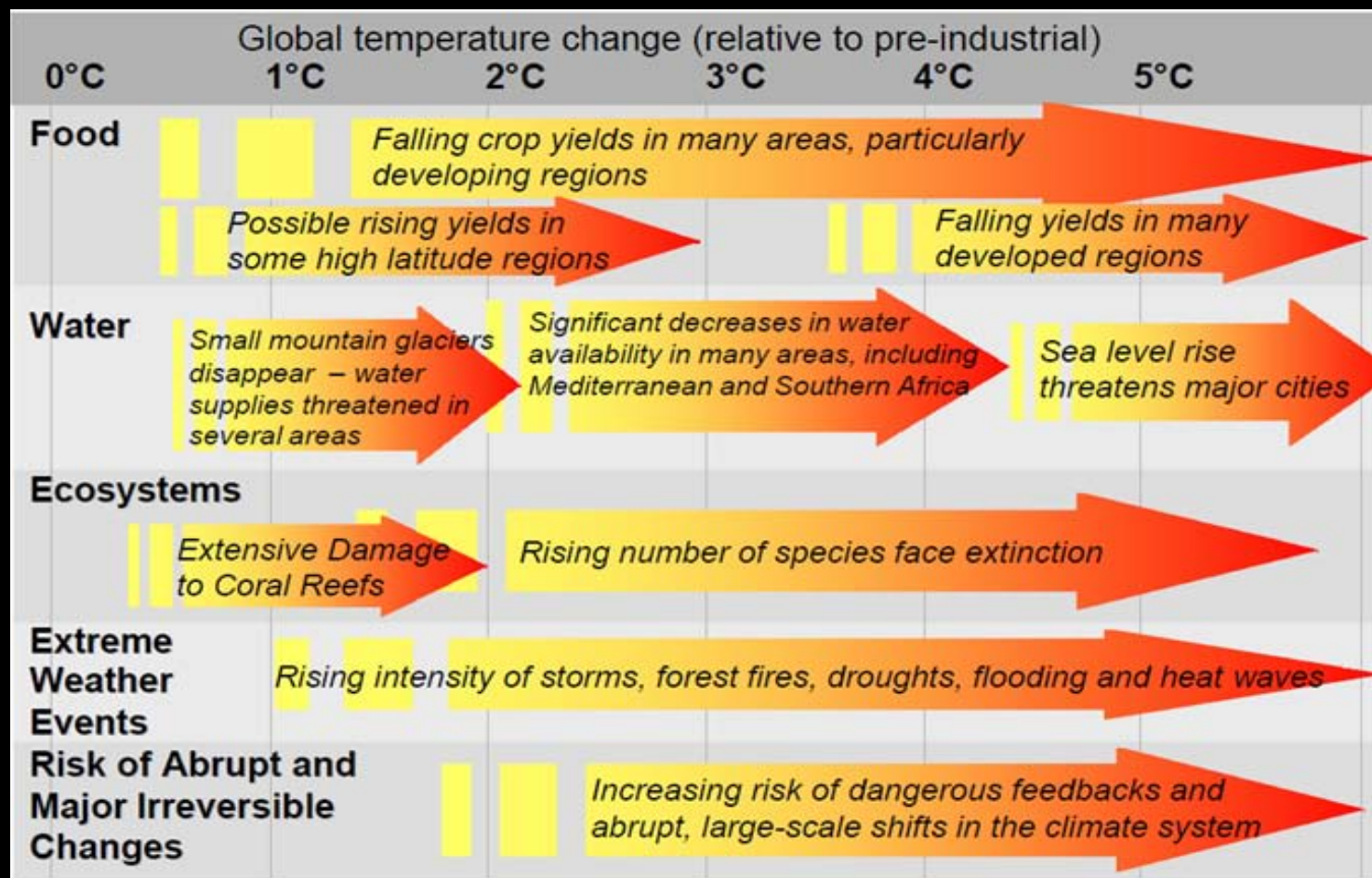
World's Liquid Fuels Supply



False Hopes, dangerous lack of alternate plans.



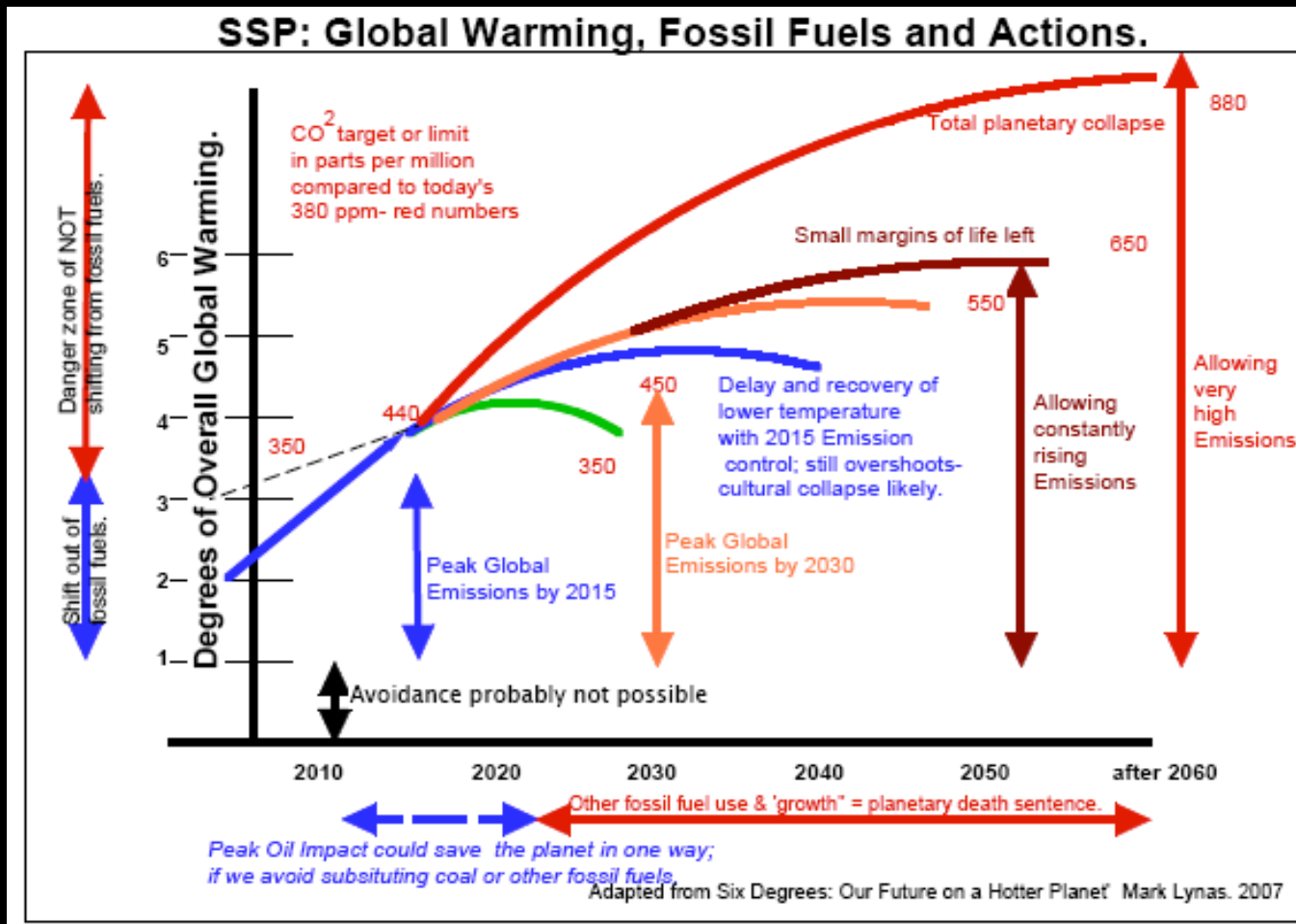
Climate Change Shock: Projected Impacts



And not just IPCC but Abrupt Climate Change Report US Govt/NASA 2009.



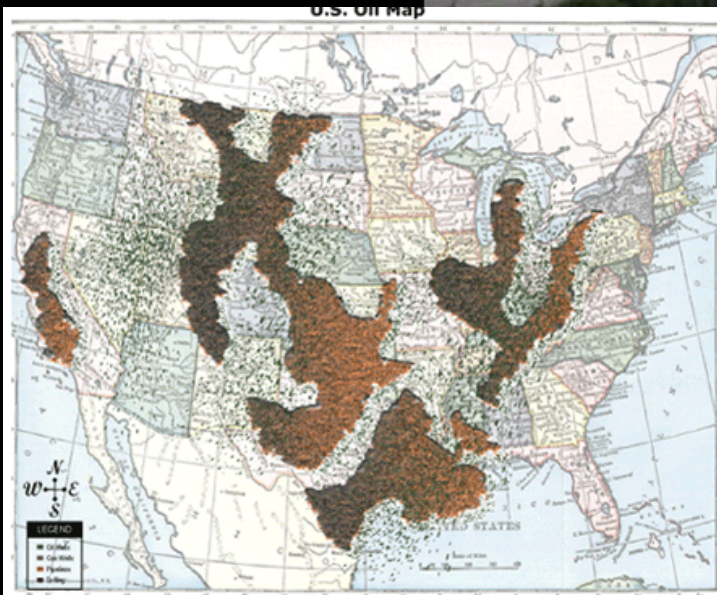
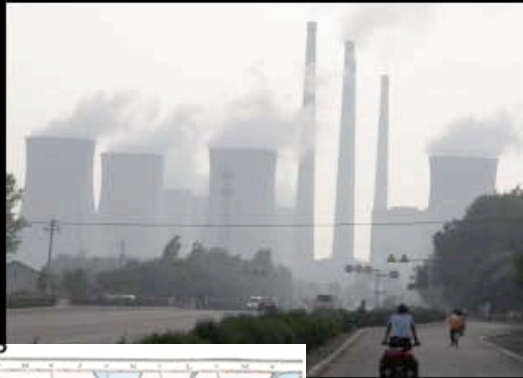
...and of course, Global Warming...



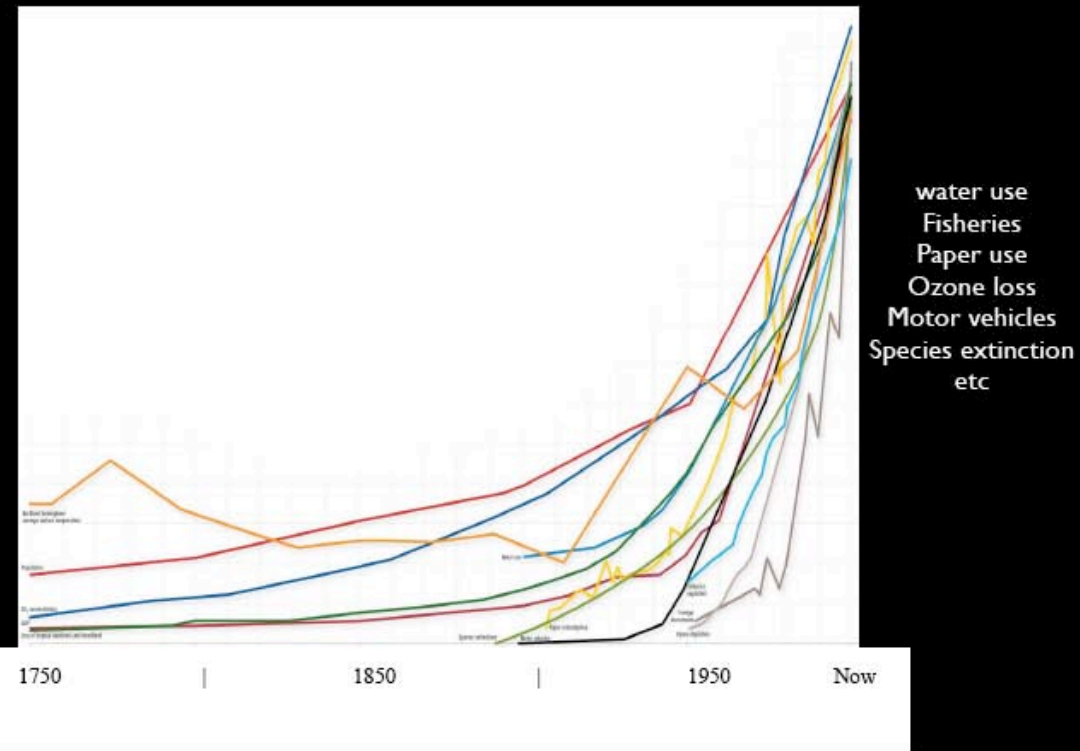
graphing
Mark
Lynas book:
6°



Before we move on, it is not just oil...



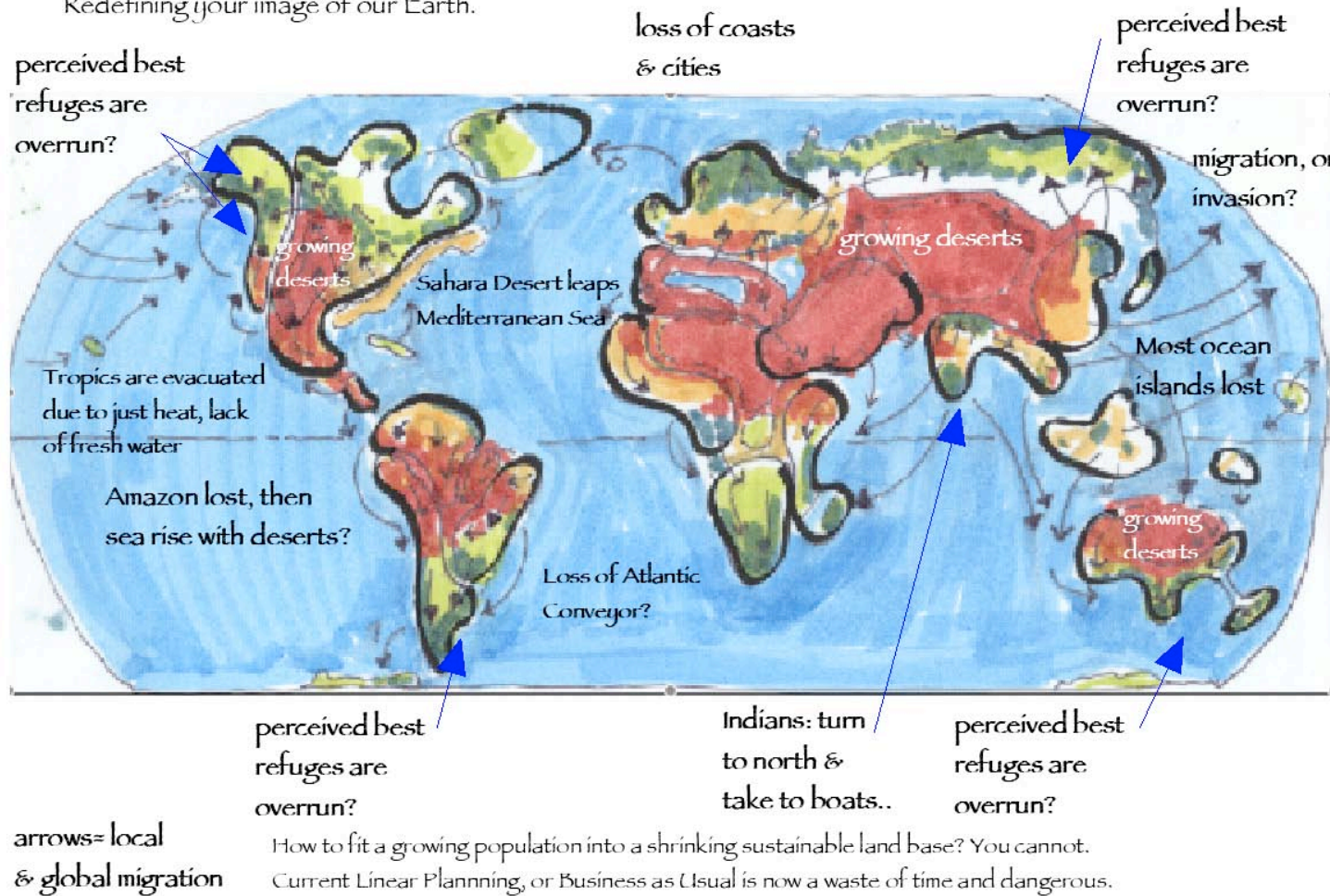
Average °C
Population
CO2
Forest Loss



& false hopes, delaying necessary adaptation...



Macros of Global Shifts: Post Oil, Climate Change Quantum Planning 2050. Redefining your image of our Earth.



Plan A & B:
Business as Usual
impacts & why Plan
B is too late.

Where are we
building next
Grandma?

Living on Mountain Slopes II SSP II

B&A Strategic Planning 2010



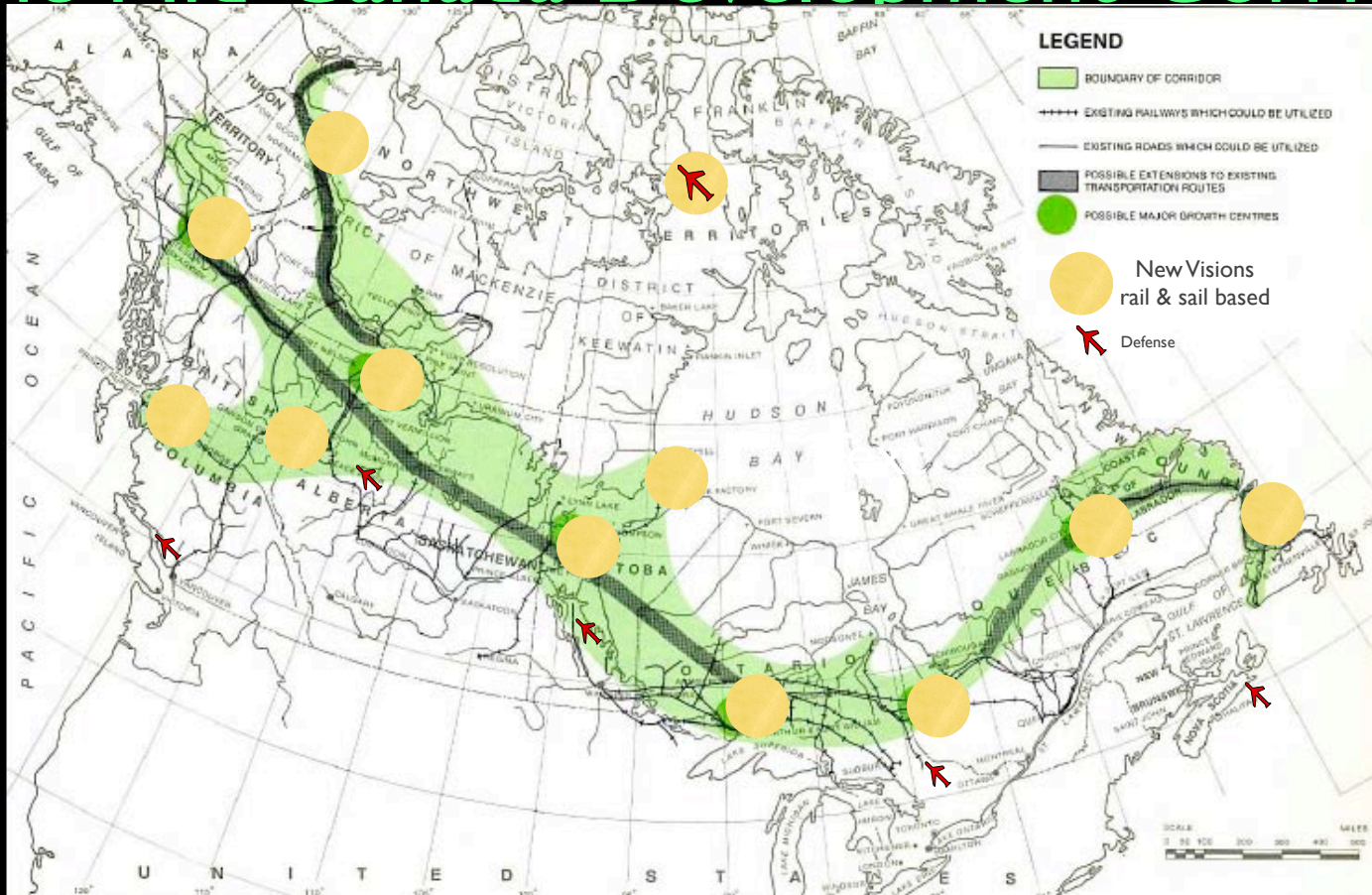
- Overall warming
- Erratic, violent weather
- Growth of deserts
- Loss of Forests
- Rising Oceans
- Dryer rivers & lakes
- loss of ancient aquifers
- Acid rain from China Coal plants growth in effluent.

Climate Change Canada



The Mid Canada Development Corridor

1969



A Massive Architectural Project?

Proactive Solutions



What limits?
Design with Nature.

Do we take in post oil & climate change refugees, or not?



H₂O



Ancient Aquifers Dying

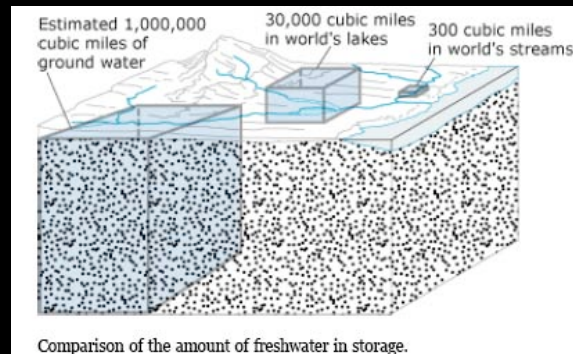


Ground water discharges from springs in the Redwall Limestone and cascades into the Colorado River at Vasey's Paradise in the Grand Canyon.
Photo by R.D. MacNish, U.S. Geological

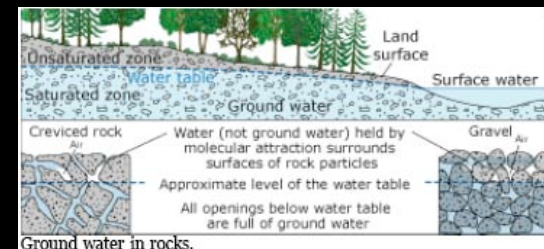
Many aquifers cross international boundaries, making control & protection impossible as each we beggar our neighbour to consume the resource first.



World Losses trigger new migrations....



Comparison of the amount of freshwater in storage.



Ground water in rocks.



Climate Change Prognosis: North America and Food Security



New Scientist UK



Climate Change Prognosis: North America and Food Security



New Scientist UK



Climate Change Prognosis: North America and Food Security



New Scientist UK



- -now, and in 2050?



Social Impact and Urban Triage



A Leadership Test for Architecture.

Halfway measures assessment.

- Transition towns and such are only workable where they were created in a pre-oil era, where reversion can be made to work.
- Oil Age cities and towns in contrast face: death of suburbia, inability to be fed or serviced, death of Alpha cities in general, and thereby face out-migration as populations seek subsistence and a NEW Pattern of functional Community. Wishful solutions are just more waste.
- While we have contributed heavily in the creation of this problem we have a bigger job now to rapidly and radically change the pattern of human settlement. Casino Gulags for the trapped, or what else?

Stop kidding yourself and the public: your grandkids are waiting...



Pattern of Community Related to Energy

Finding the Stable Glide Path:
Taking control to achieve a Soft Landing

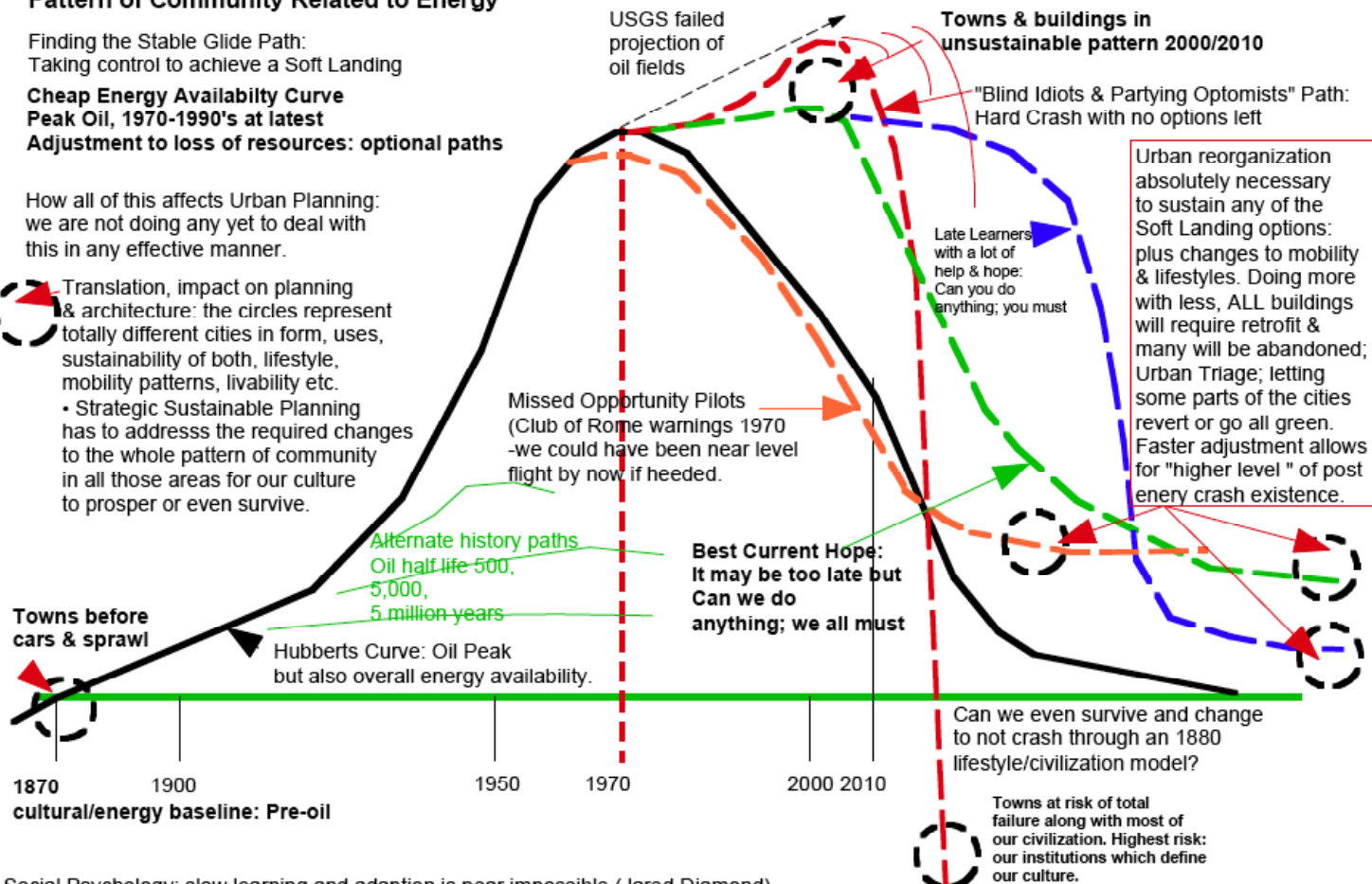
Cheap Energy Availability Curve

Peak Oil, 1970-1990's at latest

Adjustment to loss of resources: optional paths

How all of this affects Urban Planning:
we are not doing any yet to deal with
this in any effective manner.

Translation, impact on planning
& architecture: the circles represent
totally different cities in form, uses,
sustainability of both, lifestyle,
mobility patterns, livability etc.
• Strategic Sustainable Planning
has to address the required changes
to the whole pattern of community
in all those areas for our culture
to prosper or even survive.



Social Psychology: slow learning and adaption is near impossible (Jared Diamond)

No weaning from cheap energy; we can only adapt to a crash condition (No pilots, only navigators yelling help)

To put us on a safe glide path, we all have to wake up and take charge of the plane.

- It cannot be the work/fault, responsibility of the other guy; it will take all of us to protect our culture from impact.

Strategic Sustainable Planning
Vancouver City Planning Commission
2005.09.16 rb/bca*sp

Learning from alternate
histories exercise.

MOVEMENT:

Needed:
Rapid & radical
change to the
pattern of
community.

Not small steps
and don't take
too much time
talking.

Project addiction: just another fix?

Old World Lessons



- Post Oil Restoration of old world community patterns will involve making things a little messier than in the oil age subsidized antiseptic planning approach. Lessons from the World Urban Forum 2006.
- Industry and farming are part of a whole community, a complete community means just that; it does not exclude any necessary complementary element from the mix.



A New Pattern Language.

- Marbleization - reformation of what urban land that is possible.
- Green fingers of sustainability- restoring and sustaining
- New Homestead Acts- farming as a defensible community.
- Off grid, post grid engineering... build a hamlet.
- Scale adjustments will be extreme... get a horse.
- Cannibalization of our current new mistakes, a priority.

Post Oil Architecture is not about big firms or business, BAU is dead.



Marbleization: new town patterns.

- learning from the Old World lessons.... new from old pattern language.

- Homogenous dysfunctional car age suburbs and communities have some potential if they can create new green fingers of sustainable urban villages if:
- Urban village clusters are spaced to create a livable density for self subsistence or better re-localized food and goods production.
- Defensible community as a first consideration rather than an afterthought will save having to rebuild yet again.



Scale, economy & 'business'

- Globalization is heavily energy dependent, the end of cheap energy has already started the reversal to re-localization of economy.
- Rampant gigantism in corporate attitude is a exponential growth mentality, and that always has a limit, usually in a crash and a state of unexpected consequences. There is no one left to buy out the last pyramid investor; amalgamation is a Ponzi scheme.
- Localization means small to medium sized anything will work when large scale organizations cannot, and do not have the energy resources to be maintained. Efficiency of scale is replaced with top heavy non-value added 'workers'.



Post oil impact on Architects too.....

De-globalization & remote ownership



- Loss of cheap energy collapses support for globalization, for large organizations including large nation state governments.
- Collapse of non-value added jobs, of tax base and eventually loss of control and funding of large armies and police forces.
- Loss of social controls at a large scale coupled with the dispossessed sitting next to unused assets owned by outsiders means ownership at a distance is futile and cannot be protected. The clawback of local assets by the original local owners is a normal and historic right.

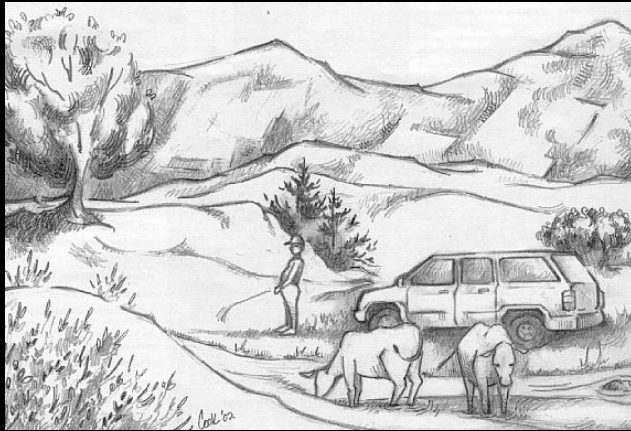
Lesson, don't grow too big, stay agile and mobile and protect your home base.



Exurbs in power-down mode



- Car oriented dispersed living cannot be sustained, the jobs that permit this will not endure, but maintaining this pattern by adapting the large wasteful housing to group living, cooperatives and real working of the land is one possible rescue pathway.
- Infilling of key clusters for more housing to allow for more intensive farming, local full social support means village formation is part of the marbleization of Exurbia; jumping each side of an unsustainable density to form truly rural and some truly small urban villages.



Alpha Cities: goombya



- The largest cities cannot be serviced, supply chains for food cannot be maintained, holes must appear to provide places to raise foods for the remaining populations. This is the death of the Alpha Cities.
- Even mid sized cities cross a sustainable threshold in a post oil economy; marbleization of the core and arms will be needed to provide now missing services. Suburbs have no future but in reclamation of farm and village in Marbleization Patterns.

...You can argue about this if not to your liking, but don't stop others from trying to make changes for survival. Let the life rafts launch.



The End of Bad Exports

Responsible
Architects.



- We have exported the worst of urban forms and solutions to the Third World, and to China. Highways, high rises and shopping malls are not efficient, green or the best solutions within the categories of transport, building form and economic central place.
- As discussed at the World Urban Forum, the oil age culture has to learn from the Third World and the Old World to regain any sense of stability to the Pattern of Community. Architects have to reverse their import-export models of learning and operation.

You knew all of this 40 years ago, but now you must act on best principles of a reformation of the built environment. As we are too late, the options are narrowing.



Reality Check: dysfunctional programme

- Technical Solutions will not save us or allow for continued consumption, nor at levels of population now living. Most alternate solutions require heavy investment (the money is gone), high input of energy to create (mostly made of oil, now diminishing), and other rare materials (**Peak everything**).
- The Green attempts, showcases for sometimes better, but often not, considering costs of embodied energy, cannot meet the gap between changing needs and modified current infrastructure.
- Oil age installation of city infrastructure, now aged and in need of replacement cannot be financed; the age of big pipe systems is over.



Selling dysfunction



Dream State Check: wake up Architects

- Earth 1.0 is really all we have but we are into human population overshoot and we are consuming 3 to 4 times what the planet can safely handle to remain habitable. There is no earth 2.
- Terra-forming Mars, as some dream, is an impossible cost and effort of just cleaning up our own backyard. Attempting such moves further erodes Earth itself due to the costs of lift off and material preparation.
- Even current populations cannot be maintained in the next 50 years as our overall growth has been made possible in direct proportion and consequence of cheap energy. No energy = No population support.
- The Green Agricultural Revolution was black: oil based, and only created another population boom. This cycle is at an end. De-growth is the new reality.



Attitude and Resistance:

- BAU: Business as Usual, while leading us to disaster, if defended by those now gaining from that paradigm of Plan A.
- Denialists of the need to change from our current wasteful approach will attempt to discredit the need for change until it is too late for current Plan B. Realists, such as the real philosopher leaders in this room, already know most of this but need the inspiration to actually step forward and lead.
- Your profession has made you a candidate for leadership. When you see the pieces of Global Impacts now putting us at the tipping point, you owe something to your family and to society to change. NO more BAU.

Needed Radical Change requires leaders and courage, not consensus or fear.



Say isn't so, It is not that bad!

- Really? Since just 2005, all of the worst case conditions admitted by the controlling elites and vested interests have become the best conditions to expect.
- Oil reserves, metals, rare earths, food production, fresh water, all have gone into a new realm of shortages, end of stock, soon to run out conditions.
- As Generals and as Generalists, you have a bigger job to do. You are about to be conscripted into Civil Defense to rescue your society.
- As urban or rural guerrillas in this new landscape, there is no future for big firms, big nations, big anything, so generalize now if you hope to lead in the post oil what-is-left of community; you are leading any re-building of it.



Accepting responsibility.

Under Duress



- Architects cannot keep blaming society, the system or their clients.
- Money and governments are changing, will change and we will be working more in the realm of public service, emergency aid to the public if we step into the roles for which we have prepared.
- All of us are only powerless in the face of these changes if you believe it to be so.
- If you have to become a Guerrilla Architect, get ready.

Soft Landings? Take command of the plane before the crash....

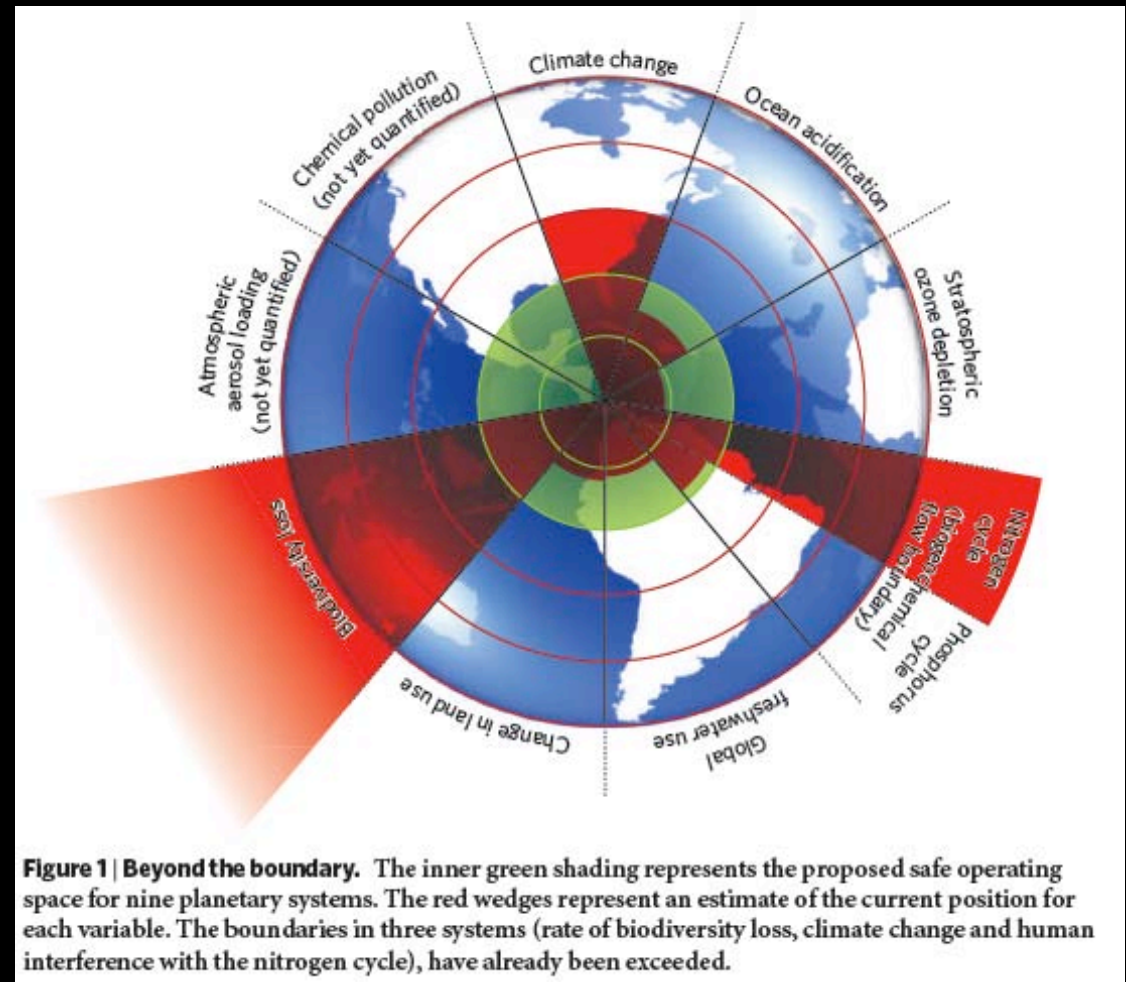


Rising Awareness: Moving to Actions beyond Planning.

2005: Peak Oil and Climate Change were starting to become issues in the public realm but with much resistance & persistent denial from vested interests & amateur skeptics.

2010: Now we move into dealing with the problem and looking at solutions: how does EROI affect food, cities, jobs, survival.

2011+: Secondary impacts arise: mass migration, wars over the diminishing resources, what extent do rising oceans impact us.



Understatement.



Lets look at some solutions.

```

> A := Matrix([[2,3,-1,-3,1],[1,3,1,-3,2],
               [-3,-4,2,4,-1]]);

```

$$A := \begin{bmatrix} 2 & 3 & -1 & -3 & 1 \\ 1 & 3 & 1 & -3 & 2 \\ -3 & -4 & 2 & 4 & -1 \end{bmatrix}$$

```

[ >

```

$$p_1 := \begin{bmatrix} -1 \\ 1 \\ 0 \\ 0 \end{bmatrix}, p_2 := \begin{bmatrix} 1 \\ 1 \\ 1 \\ 1 \end{bmatrix}, p_3 := \begin{bmatrix} -1 \\ 1 \\ 0 \\ 1 \end{bmatrix},$$

$$v_1 := \begin{bmatrix} 0 \\ 1 \\ 0 \\ 1 \end{bmatrix}, v_2 := \begin{bmatrix} 2 \\ -1 \\ 1 \\ 0 \end{bmatrix}, v_3 := \begin{bmatrix} -1 \\ 1 \\ 0 \\ 1 \end{bmatrix}, v_4 := \begin{bmatrix} 2 \\ 0 \\ 1 \\ 1 \end{bmatrix}$$

Learning a New Language

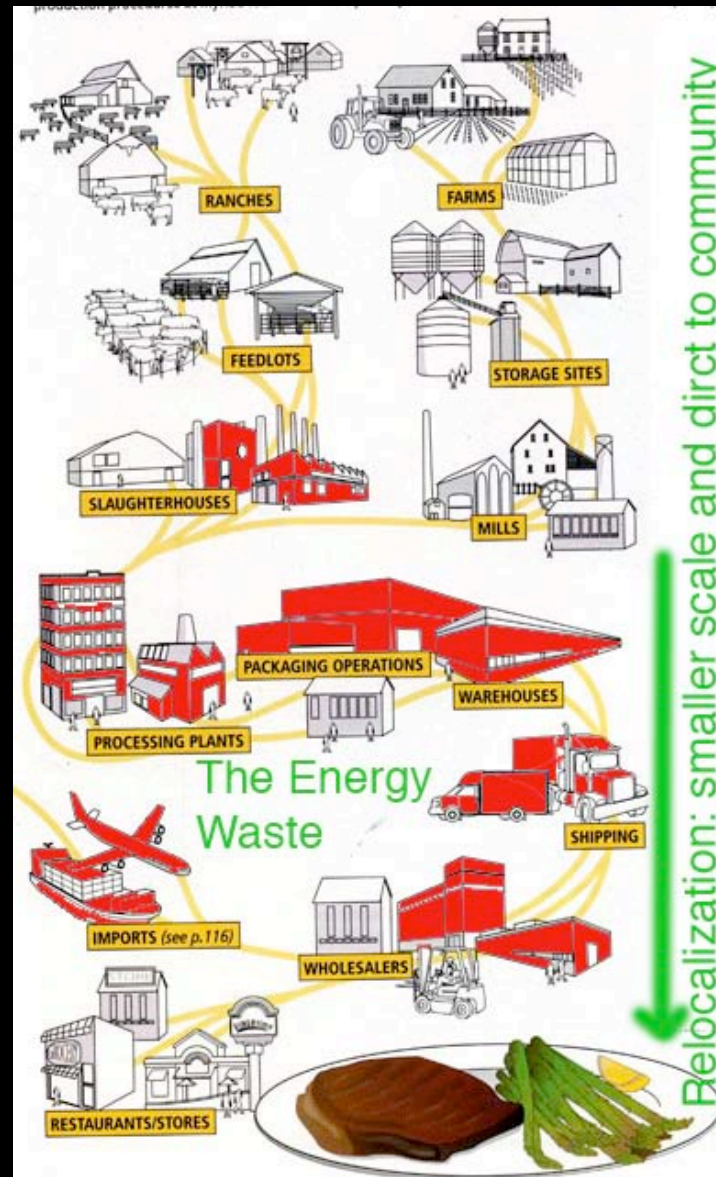


Relocalization-

cutting out the
90% waste!

Our Modern
Common

Problem: our food
supply chain scale
& abuse of energy
puts us all at risk.



This high energy use-
the
hub & spoke system is
wasteful & has no
future: not a wish but
from peak oil price
shock & collapse of the
network.



Food will not get to Alpha Cities- neither will you....

- Aside from the end of oil impacts; Florida, Mexico & California are at risk from multiple global impacts. Food supply is the first system failure.
- At the other end of the supply chain, Alpha Cities either radically and rapidly re-form, or die. Scale in design must be re-recognized as a Limit to Growth factor, not just a good idea.
- There is no rescue, no Technological fix for the scale of Global Impacts. Too many people, too much consumption, end of cheap energy, something has to give, and not in decades **but in only a few years.**
- Do you wish to still gamble on the futures of Oil Age culture?



Scaling humans in Limits to Growth, Design with Nature, Food Security



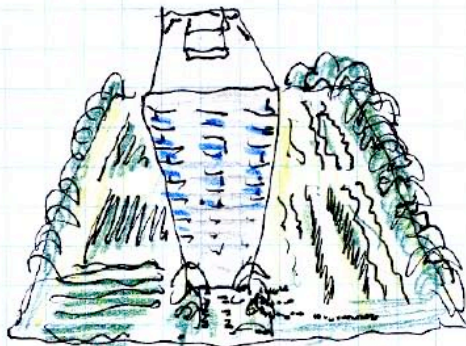
One Man: One Acre for food.



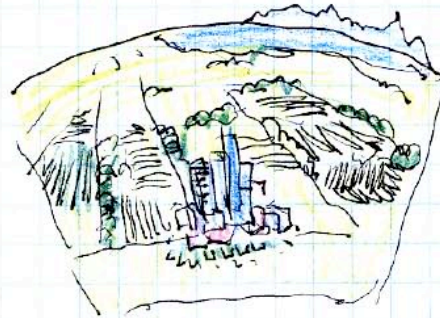
One Family: Land plus greenhouse?



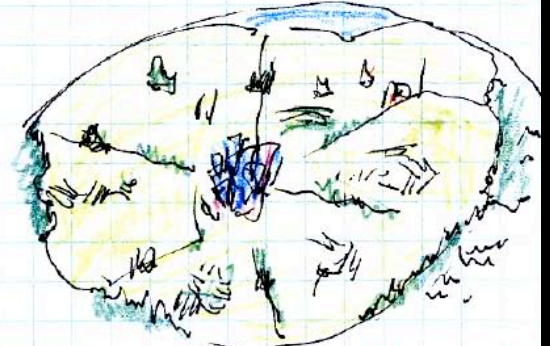
Hamlet of 1500 people, 1500 acres,
double for commons to sustain the
local environment.



One high rise? 100 people, 100 acres
if they want to eat.



One urban village? 1000 people
1000 acres Towns? 10 square miles.



City or urban region 1 million people
post oil, needs 100 miles x 100 miles.

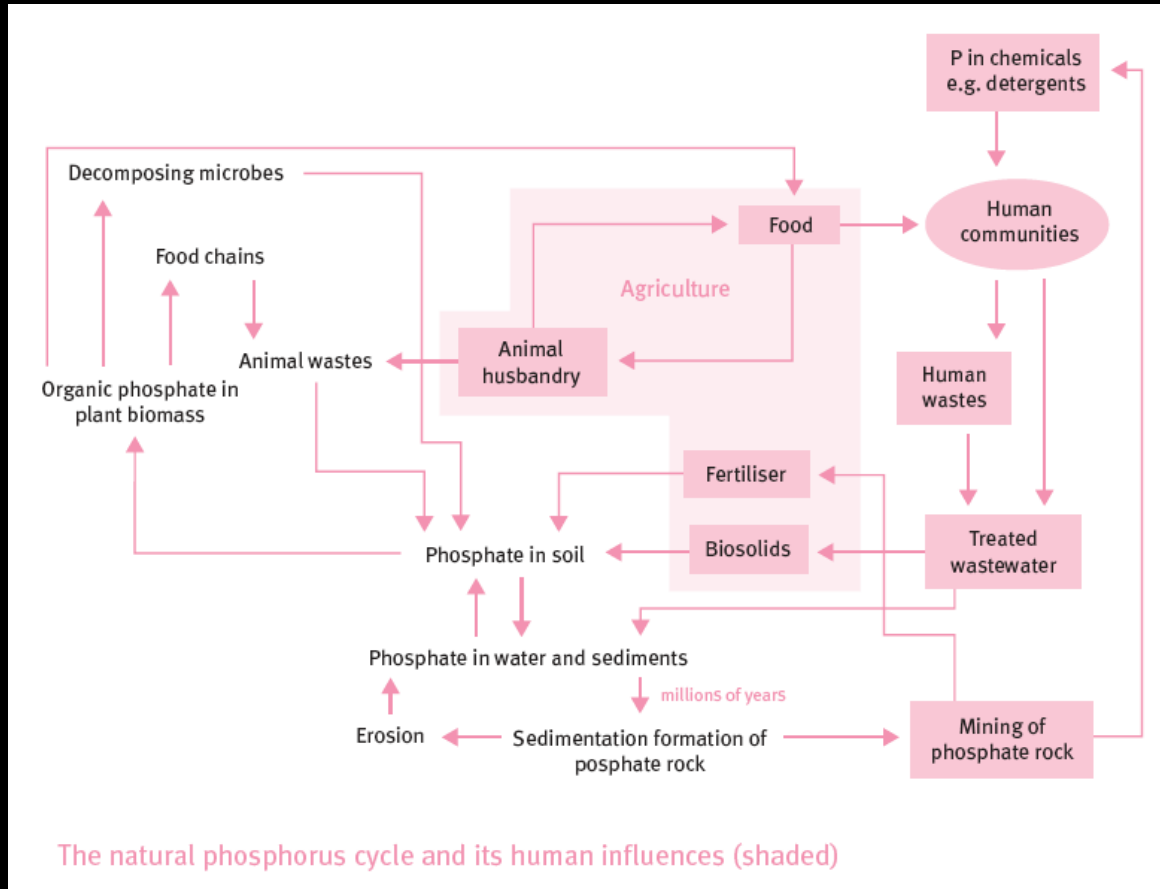
B&A • Strategic Planning

No oil
No food
No people

finding new
balance in
the
landscape

current
planning
assumptions
are not
sustainable,
at all

Phosphorus: a Snapshot Example

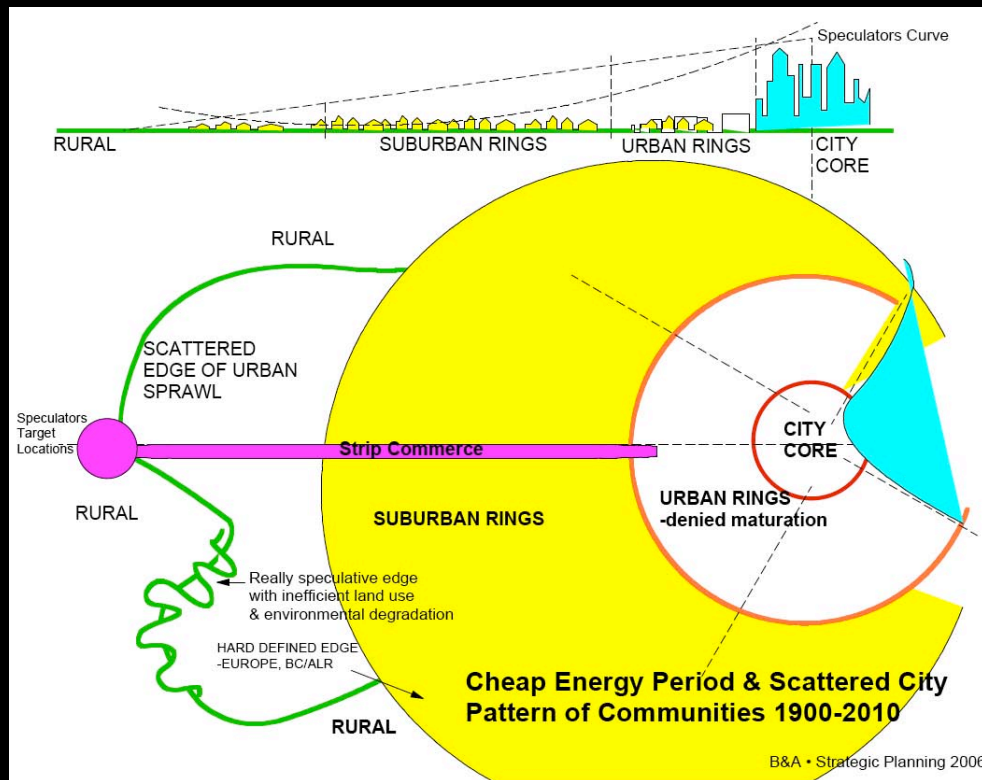


Unavoidable Solution:
Curbside pickup of urine
for food cycle replenishment....

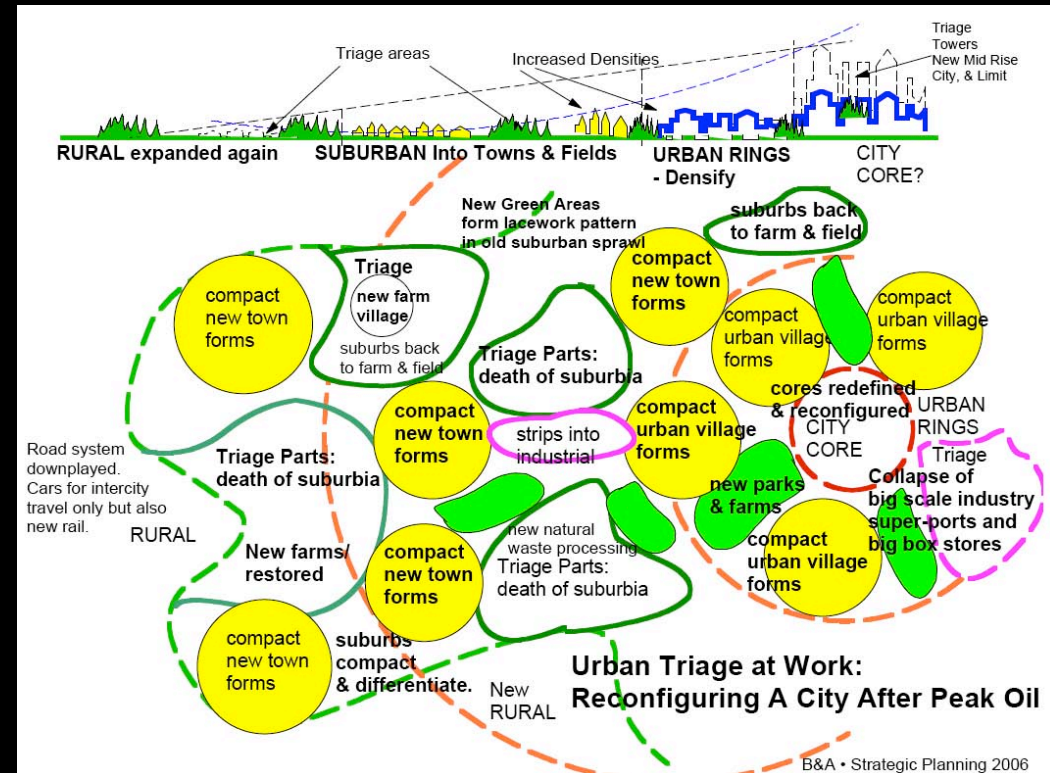
We have only a 40 year supply left due to our separation of food and waste streams. Scientific American May 2009.



Oil Age Planning destroyed both community scale and the landscape.

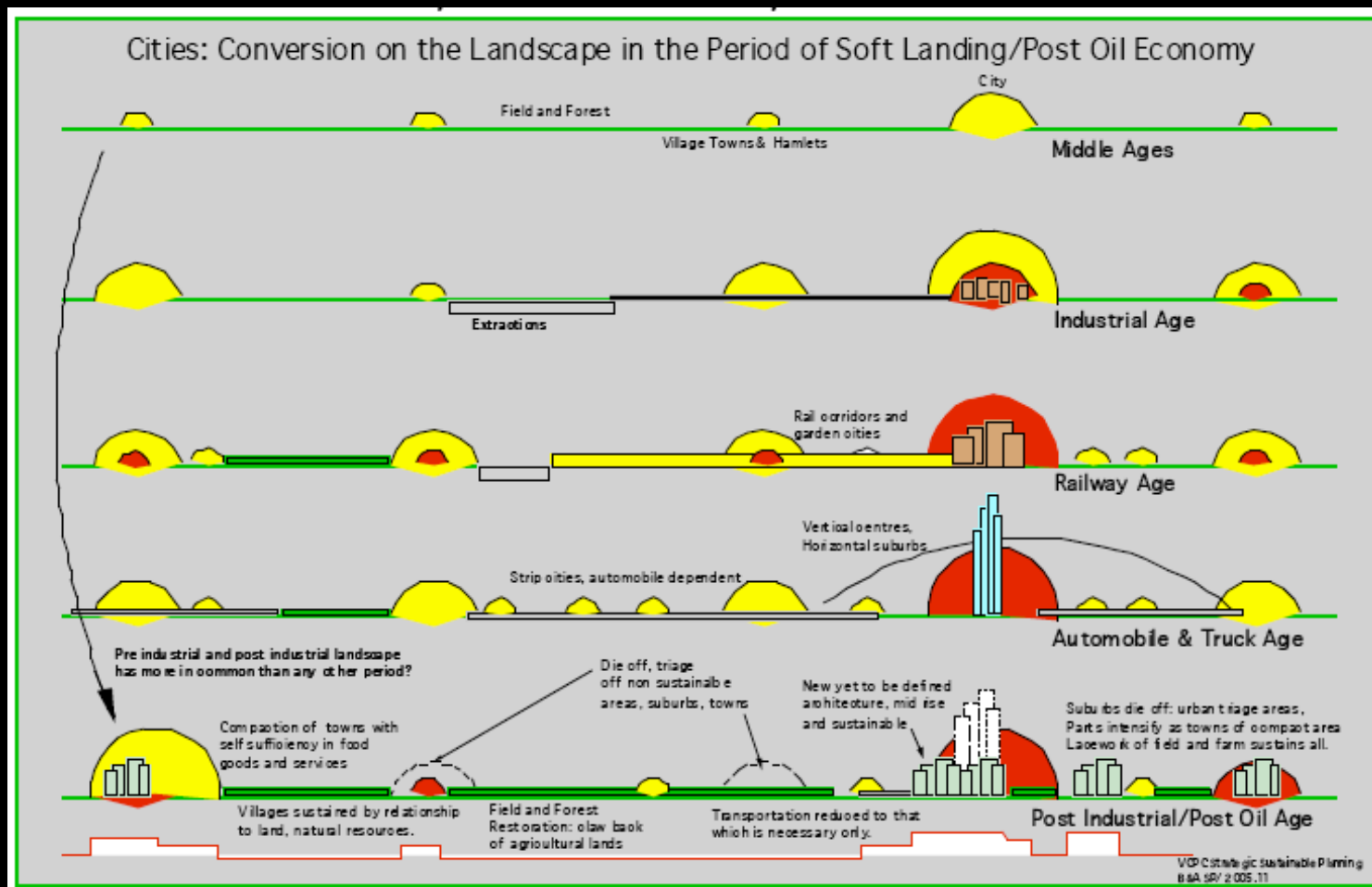


As end of energy means tight relocation of all activity, patterns will change:



Marbleization and Urban Triage
as post-oil response to refinding human scale & restoring the natural landscape.





Settlement Cross Section devolution



green-fingers in Urban Triage:



- Detroit Marbleization is a small lesson, not assuring success for others. An accidental plan B potential success?.



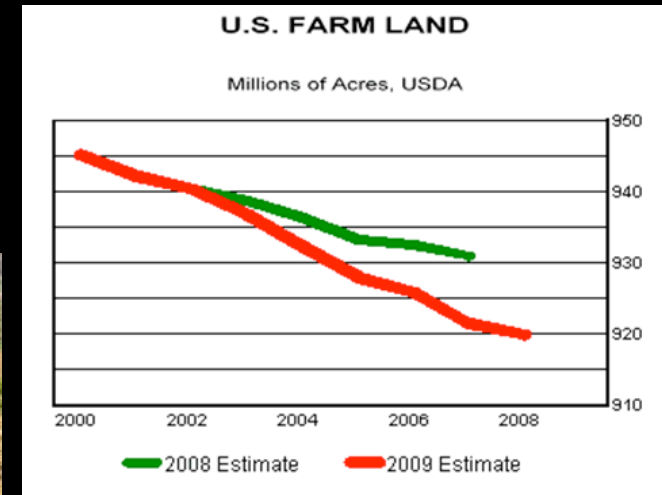
Rural Triage: balance & community



- Isolated back to the land attempts are high risk in a period of social and economic collapse; safety in numbers, forming a real community and having a well rounded base of village scale integrated economy should be a goal for real sustainability.
- Half way formations as a transition stage is perhaps realistic, but only if full localized economy and social networks can be achieved within a half generation. Schooling, rearing of the young is a concern in addition to the self sufficiency in food and energy.



The primacy of farmlands



- Cheap oil let us ignore many realities including conditioning us to long distant exotic foods, it is not an ideal to produce locally but a necessity of our very survival.
- Farmland IS the highest and best use.



Myth check: electric city is a refuge:wrong.

Why your city is not functioning soon...

The bigger the net, the bigger the fall: this is not sustainable.

Some of these areas will be evacuated due to no water, no food, no energy.

Others become targets for resettlement.



OFF grid is unavoidable

This grid is actually not really a hydro grid at all but mostly fed by oil and gas...



What some others are planning for you....



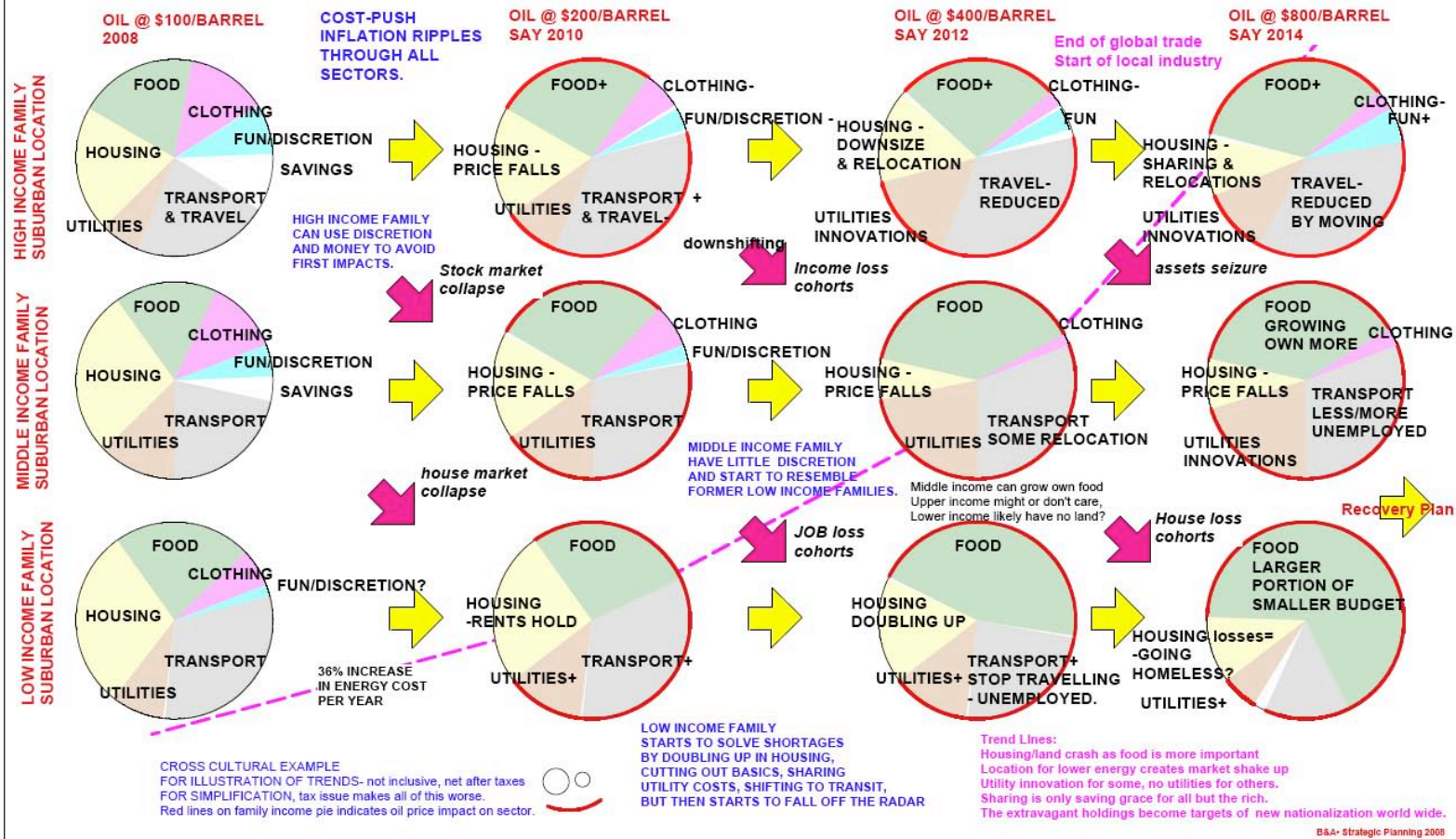
In contrast: downslope planning:

- One percent solutions? Earth population 2060 of 70 million?
- Strategic Planners are not ignoring oil price shock ending city and culture as we know it, nor Climate Change, rising oceans, loss of food and water sources, resource wars, and mass migration.
- Urban cheerleaders in contrast keep building the wrong things in the wrong places with materials we will need to re-harvest for use in new places..... what are you doing?
- We have collectively known this incipient tipping point since 1970 and the Club of Rome. We missed Plan B timing: what is Plan C?



OIL PEAK PRICE ESCALATION DIFFERENTIAL IMPACT ON INCOME, LIFESTYLES AND 'BASICS' OF LIFE.

A sociological perspective on Peak Oil and Family



Family Income & Post Oil Economy:Not so good....WASF



futures? crash or soft landings

The **Optimum Population**

Trust believes that Earth may not be able to support more than half its present numbers before the end of this century, and that the UK's long-term sustainable population level may be lower than 30 million."

(<http://www.optimumpopulation.org/> 13 SEP 2010)

Dr. Jack Alpert, U of Kansas suggests we need to get human global population down to 50 million in a generation...

Yin is earth (water actually is the most yin) and refers to the realities on the ground. Yang refers to Sky - the expansive with the limitless possibilities of pure ideas, unconstrained by the minutiae of the mundane (etymology = "le monde" = the worldly).

It is where I think our civilization is since we left behind the experience of struggling for food, shelter and survival - related to needing each other for our very survival. It is also where relationships struggle since we are so used to being able to live our individual lives and it is what needs to be dealt with if one is to be realistic about re-learning how to live in a collective to any extent. Dr. Andre Piver



The Security futures mentality....

A shift in urban forms: Gulags

Your job, if you wish to take it, is attached. The chance to act and the directions to change will shortly be reduced.

- Cities with current elephant footprints cannot be maintained, Alpha cities either die or are sustained in “Gulag” conditions.
- The end of non-value added jobs will collapse economies, governments and accelerate further change. The loss of tax base collapses large governments and leaves hope through Devolution of power and must be balanced at local and Canton levels by Direct Democracy, for the sake of the community and in self defence against Mad Max or Police State influences.

Redesign: Government, democracy and accountability: a survival tactic.



Democratic Architecture?

Urban Triage: Architectural Practice

- The end of Business as Usual of the oil and car age meets deconstruction of the suburb; forced relocation planner.
- Emergency Planning and Resettlement Logistician.
- Unserviceable and un-feedable Alpha Cities are abandoned and become harvest sites for building materials. A new industry.
- Your hardest job will be in your role as urban psychiatrist. Explaining change and managing people, problem solving at every level.

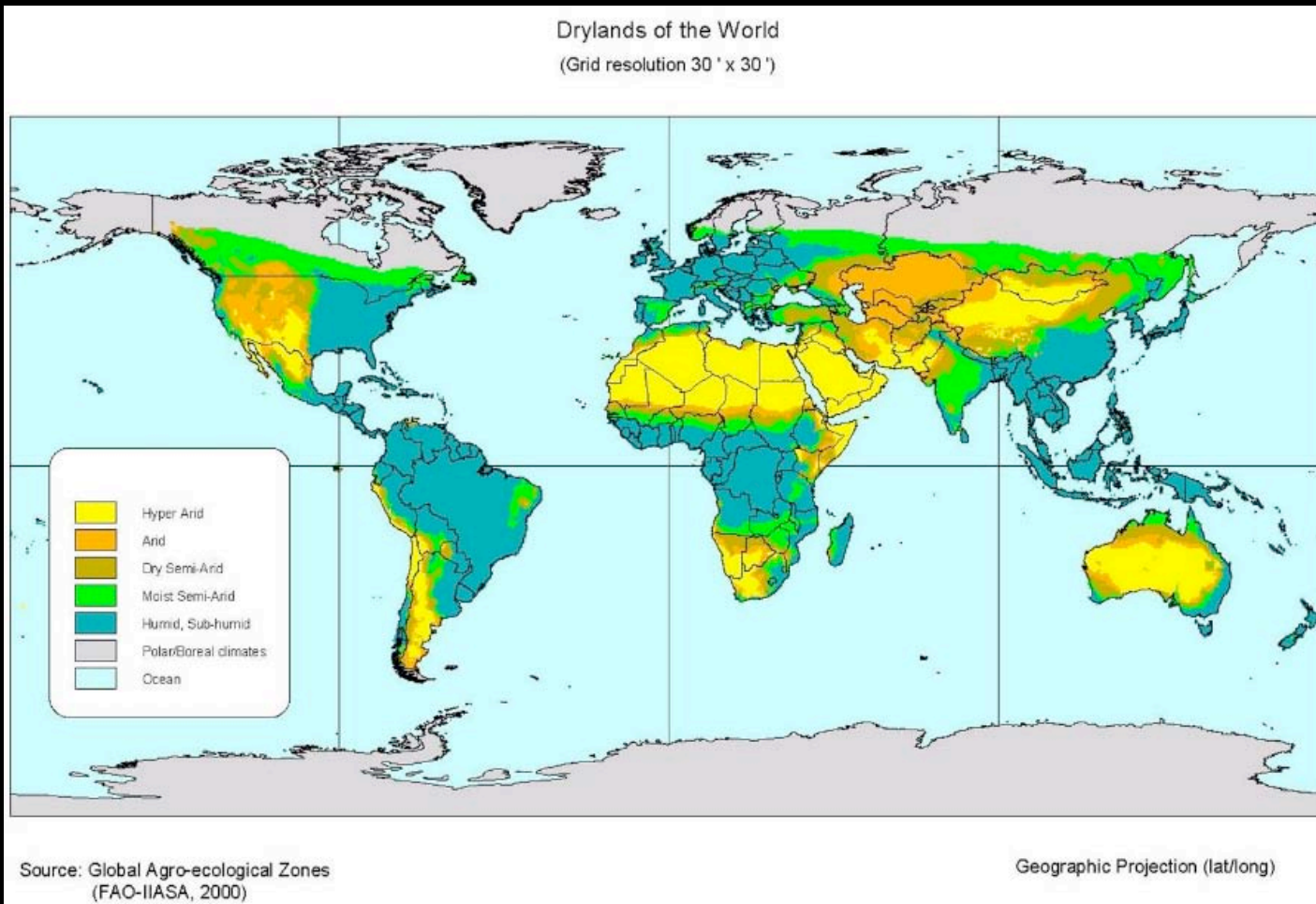


Coastal Planning Triage



Resettlement & Climate

Myth busting: we do not
have to move...

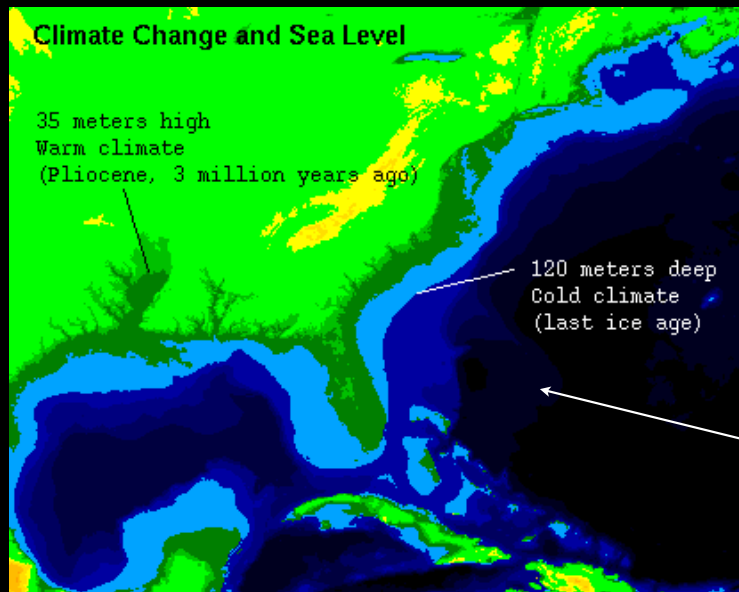


Rethinking food &
land:
37% of people farm
90% in the future.
But where, and how
many are left from
current urban
numbers when Alpha
Cities empty **due to
inability to service &
feed them?**



historically and in future:

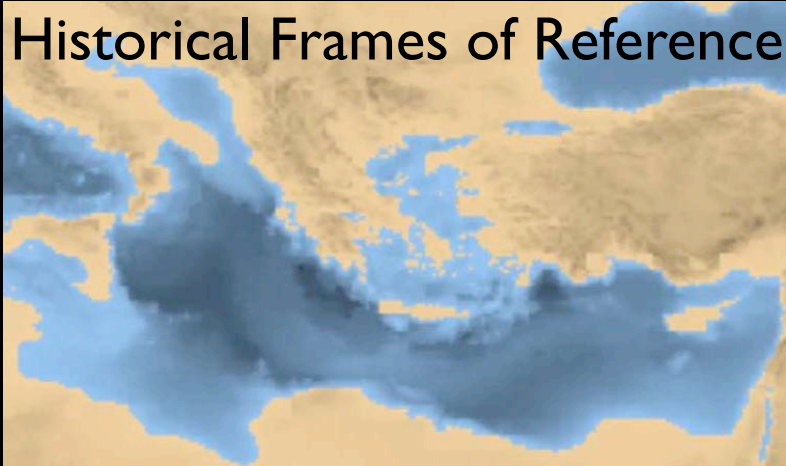
Just a sidebar: lost coasts, & cities.



Reality Check: Ice Sheet Collapse and loss of coasts is a reality. We will come back to this issue....



Historical Frames of Reference



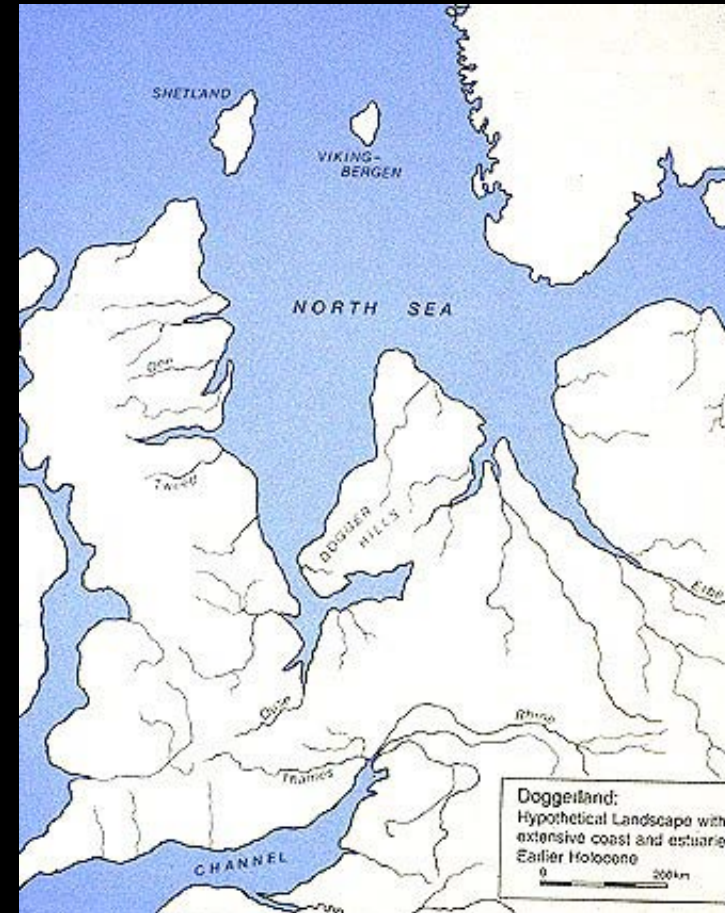
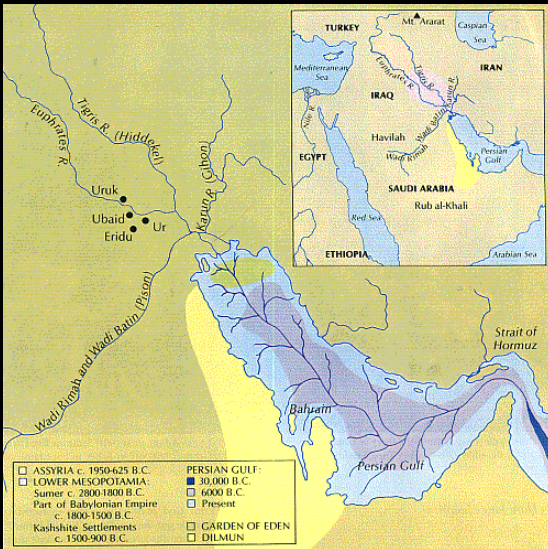
Aegian, cities, 25,000 bce

And
historical
footnotes
for fun.

Plato was not a myth,
somebody will think we are
a myth, soon.

Akkadians &
Indus Valley
Free Trade
Area, 16,000 bce

Political marriages
between Akkadian Ur & Indus
Valley in Bhagavad Gita.



Doggerland, Ice Age Civilization, and others found.

Department of Archaeology, Laver Building, North Park Road, Exeter, Devon, UK EX4 4QJ
The University of Exeter, The Queen's Drive, Exeter, Devon, UK EX4 4QJ
Telephone: +44 1392 661000

Last updated on Tuesday, 28 October, 2008 by: a.e.oldroyd@exeter.ac.uk

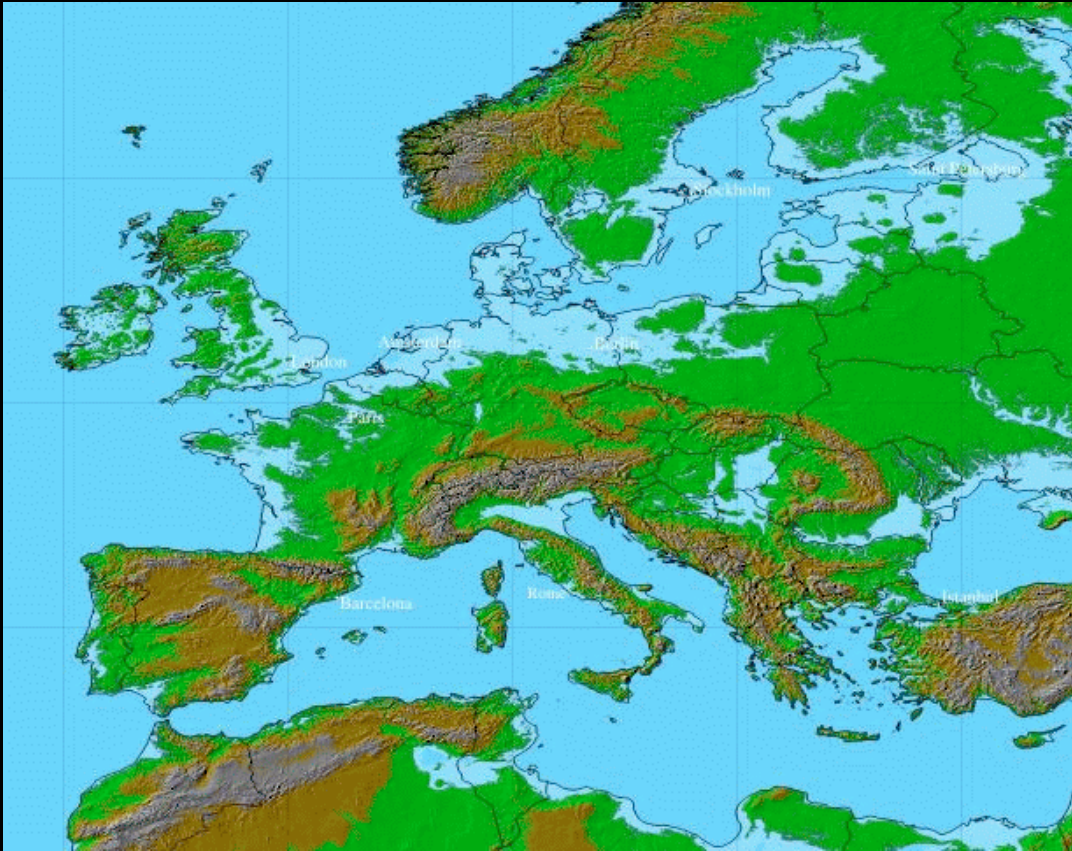
Balfour + Associates • Strategic Planning



Floods under Antarctic ice speed glaciers into sea:
study

(AFP) – Nov 16, 2008
PARIS (AFP) — Scientists unveiled Sunday the first direct evidence that massive floods deep below Antarctica's ice cover are accelerating the flow of glaciers into the sea. How quickly these huge bodies of ice slide off the Antarctic and Greenland land masses into the ocean help determine the speed at which sea levels rise. The stakes are enormous: an increase measured in tens of centimetres (inches) could wreak havoc for hundreds of millions of people living in low-lying deltas and island nations around the world. Researchers discovered only recently that inaccessible subglacial lakes in Antarctica periodically shed huge quantities of water. Data collected by a satellite launched in 2003 -- the Ice, Cloud and Land Elevation Satellite, or ICESat -- revealed a complex network of subglacial plumbing in which water periodically cascades from one hidden reservoir to another. But the new study, published online in the journal Nature Geoscience, is the first to measure the potential impact of this invisible flooding on sea-bound glaciers. A trio of scientists led by Leigh Stearns of the Climate Change Institute at the University of Maine matched ICESat data against a nearly 50 year record of how fast the Byrd Glacier in East Antarctica has moved toward the sea.

The Abrupt Climate Change Report says under current non-stopping of current Business as Usual trends, it is now possible that by 2090 60m ocean rise will flood our major coastal cities and most valuable river delta farmlands. This is the impact on Europe.



Ice Sheet Collapse: Europe Focus
2060 to 2090



feeding a city, numbers just for comparison, post oil society

Example: Vancouver West End

- an icon of oil age urban planning?...

- 100,000 population needs 100,000 farm acres. - 160 square miles- really close by..
- Myth-busting? all of Richmond BC would be needed IF we had saved the farmland, but that river delta island is half urban itself and now is likely to be lost or earthquake liquifaction, or Tsunami slip or to rising oceans from Ice Sheet Collapse from global warming, circa 2080. (Abrupt Climate Change Report 2008. US Government.)
- So what about the rest of a Metro area with 4 Million people when BC must feed itself and export food to places now feeding BC?

Greenwash De-bunking....



-post oil, the hundred mile diet is not an option, try a two mile diet.

Small techno rescue? -BIG ifs.

- **HOT:** hopeful optimist technology: if greenhouses and tools help by 1/3
- If prairies can be counted as an expanded supply source, as in Mid Canada Strategic Development Plan, including the return of the Buffalo to the plains south of the shifting Boreal forest,
- If permaculture and biochar give a new multiplier even in the face of no more cheap energy.... Canada can take some refugees but life and cities as we know them, are just not in the frame of reality.
- 100 million seeking refuge can expect very small success.



Limits to Growth • Design with Nature

- Post oil architecture and pattern of community will look more like pre-oil existence, and more to be the case the longer we avoid plan C, the rescue of modern culture and amenities becomes less likely.
- global impact planning by 'security concerns' puts civil society at risk of not surviving because it is reactive not avoidance of collapse driven.
- Any leadership in post oil society requires paradigm shift from current programming.
- But- LTG/DWN is necessary to avoid another collapse in resettlement

... sustainable planning from the 1960s and 70s somehow went missing with MBA school ascendency: Architecture as a business killed the best chance we had to do all the right things. We have one small window left open.



Who are we fooling?

1/3 from BC feeds BC?

1/3 from ROC helps BC

1/3 MUST be real local local garden to plate.

the current largesse from global sources at best make 10% of food sources and likely only for a minority if economic hierarchy survives.....

These might sound bad to current age Linear Planners yet these numbers are the best case picture within the incipient Global Impacts now kicking in....



Rhizome Community

- Green fingers defined by Limits to Growth and Design with Nature; establishing limits on human impacts, a new Absolute.
- Food within your grasp, patterns defined by the limit of your body and family in the landscape, not by energy that cannot be dependable, reconsidering our planning horizon for both short and long term continuity with nature.
- No fudging factors. We have to define where we CANNOT grow in order for the new Rhizome sustainable community to live.



BC: we must get past flat earth myopia....learning from the Old World.

3d: mountain reality, on foot.

- Part of BC reality is addressing the hills, learning from the Old world, getting past oil age design for cars, cheap energy and
- Prairie migration and oil age planning and engineering myopia has defined mountains as a liability and constraint.
- that is about to change, not just a good idea but unavoidable in need to house resettlement; we better to it right, by defining the limits first.
- the speed of Ice Sheet Collapse will affect ability to adapt in coastal areas...



Linear Planning meets climate refugees:

90% food for
several hundred
thousands -1900.

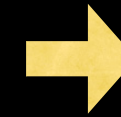


50% of food for
4 million in BC- 2010



400% of food for
17 million in 2040

10x the people
but only 5x the food



5x the people but
now 8x the food-
exports as other
areas fail?

- 1900- BC grew 90% of it's own food
- 2000- BC grew only half its own food and like other places, ate oil in the form of long range food supplied by oil dependent agriculture.
- 2020- BC must grow 90% of its own food and with a likely larger population of increasing climate and oil shock refugees.



How & what shifts?

- Losses of farmland will need a claw back of lost farms for restart of edge of city agriculture
- Inner city total replot for farming via Marbleization
- Massive newly INTENSIVE PERMACULTURE use of all ALR lands can meet in-migration and provide for exports
- NEW HOMESTEADS in refined foothill areas can provide for self subsistence survival of 80% of the expanded post city population in Rhizome communities planned under Design with Nature controls.

**THIS IS NOT A DEVELOPMENT PLAN BUT A RESPONSE TO CRISIS
STRATEGIC SUSTAINABLE PLAN FOR POST OIL COMMUNITY.**



Illustrative example of post oil recovery & resettlement.....

A recovery, hilltown example.

- Rhizome communities; homesteads, hamlets, villages and rail...
- 10,000 people live on only a third of a Designed with Nature hill;
- 320 acres, 100 upa 60 ppa net
- 5 upa 30 ppa gross
- If greenhouse systems feed half of the population due to 10 fold efficiency, half of food is local, external dependency factor is still half.

Rural Resettlement - not an idea, a post-oil necessity.



New Example 2: Homesteads

- Predefined by Limits to Growth, using Canada Land Inventory, the power of 7 for human use vis a vis power of ten for nature could provide for subsistence farming and forestry for 17 million people.
- Homesteads defined by 30 to 200 people per 200 acre site with hamlet clustering defining Rhizome pattern of community and a Limit to Growth in a transition society model.
- These survivors are a minority and refugees from Casino Gulags and Alpha Cities.
- the other option is total collapse with even fewer survivors.

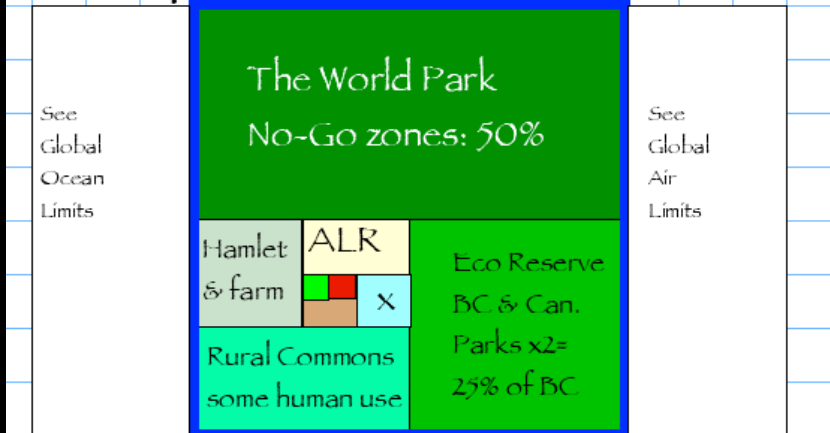


Homesteads: 9% of BC →



← Human Settlement North America.

Global Impacts: land controls for Triage Planning.



See migration controls.

Blue Square = BC before rising oceans.

- | | |
|------------|---|
| Key Policy | <ul style="list-style-type: none"> No-Go zones/World Parks 50%- federal controls. Eco-reserve II - 25% limited access- Canton managed. Rural Commons 12+% Commons in stewardship * Hamlet & farm; subsistence farming norm 6% * ALR Key societies productive farms. 3% 'X' factor 1.5%, the loss of land to sea rise. 1% urban triage in flux- reversion to half nature 1% of urban area marbled in recovery. |
|------------|---|

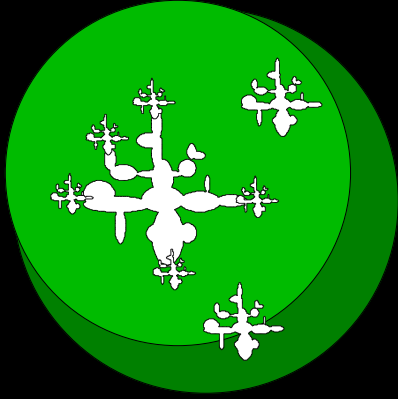
Balfour & Associates • Strategic Planning



New Pattern of Community

- Death of suburbia and death of Alpha Cities: sure, try and hold out under plan A, but do you have a backup Plan B or C?
- Plus loss of coastal farms and cities in the 6m to 60 m level
- plus real limits to growth loss of urban form suggests a survival of 10 to 20% of current 7 billions, not 90% of current linear planning wishful thinking; the abuse of the planet at a 3 earth consumption level will be a revenge of Gaia scenario.
- New urban is about hilltowns, with Green Fingers, new rural is homesteads, hamlets and villages of Rhizome community.



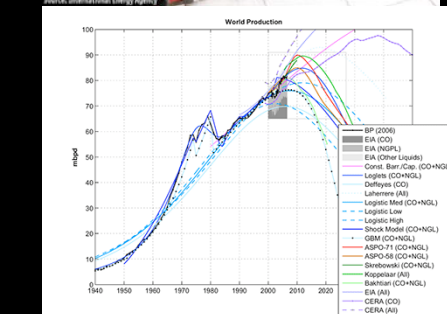
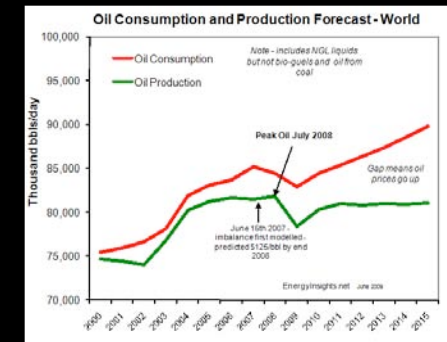
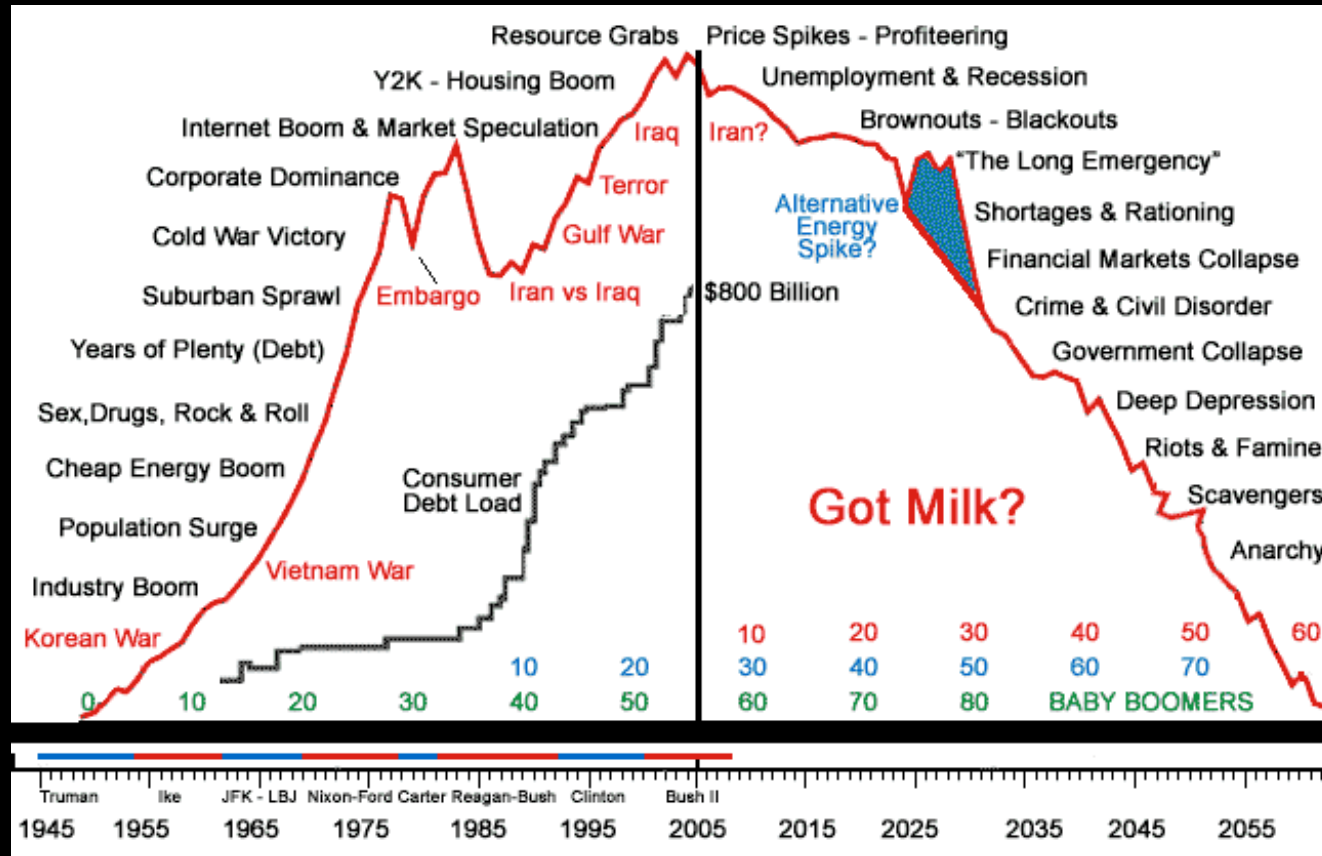


Global Impacts Changes

- Peak Oil, end of cheap energy will cause economic shifts, loss of non-value-added jobs, loss of tax base, death of suburbs and loss of Alpha cities. Mass migration and rural out-migration will result.
- Loss of food supply from climate change, peak oil will accelerate need to access land by most of the population: the cities of the oil age will not function in post oil age. Our architectural bubble is about to burst
- Climate change will change temperatures but also hydrological cycles. Mass migration will impact 'new Edens' or best refuges.



PEAK DENIAL ABOUT PEAK OIL from America 2.0

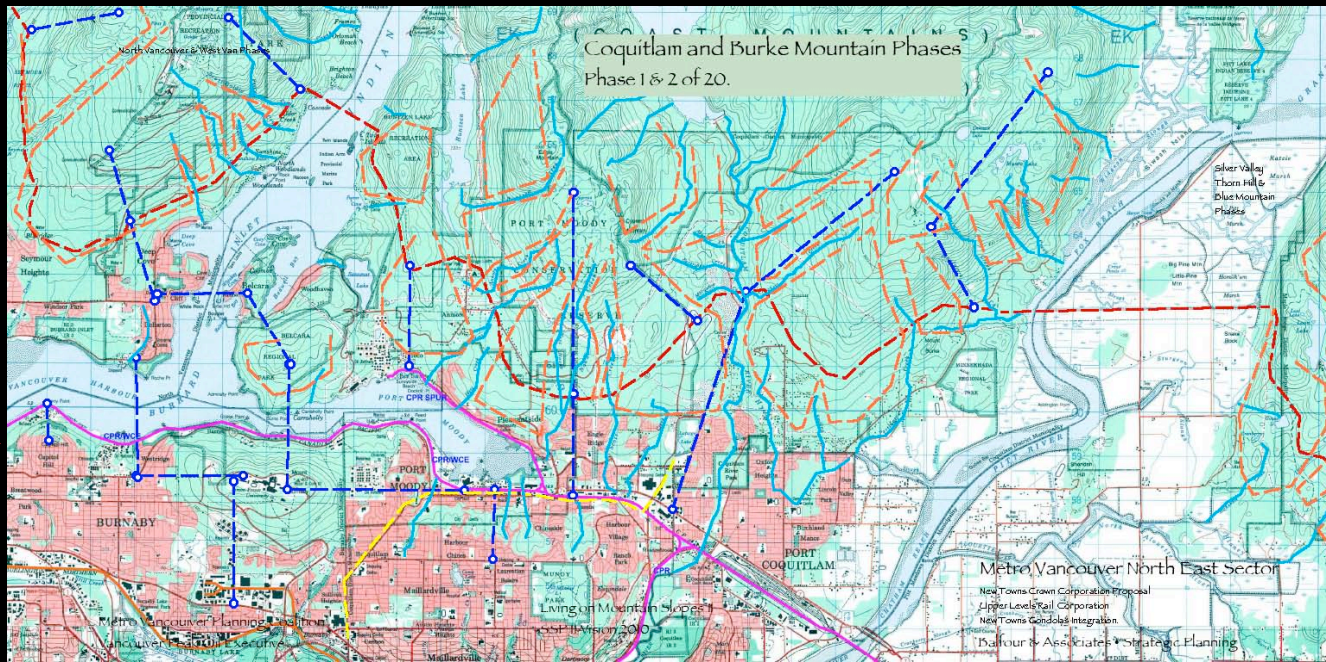


Helmut Lubbers, Ing. MSocSc DiplEcol, 14 bd Carl-Vogt, 1205 Genève, +41-22-3212320,
helmut@ecoglobe.ch - www.ecoglobe.ch

SSP34 RAIC Vancouver • AIBC GM 2011

Balfour + Associates • Strategic Planning

BC Urban Impacts on Rural Is Vancouver an Alpha City?



The North East Sector: post oil towns & rail.

- IF so, it has no future.
- IF it can shift patterns, it might still work.
- Hilltowns, new rail, expand the farms and ALR.
- Prepare for oil shock, food loss, climate change, mass migration, rising oceans and social unrest if we do not get it right.

SSP34 RAIC Vancouver • AIBC GM 2011



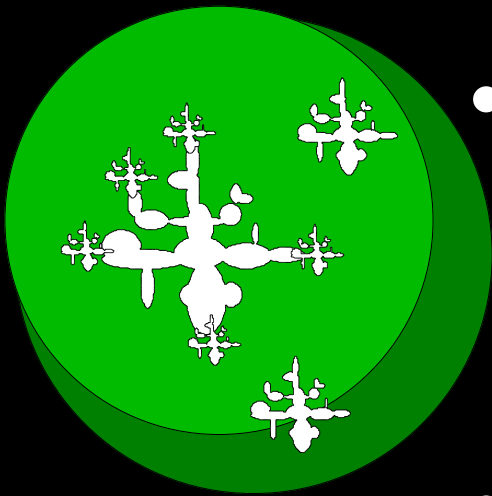
village fingers/green fingers lacework pattern of hilltown design with nature

Balfour + Associates • Strategic Planning

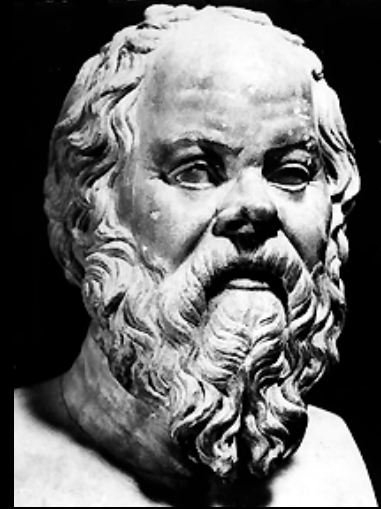


What this exercise is NOT about.

- Growth scenarios and provisions of new settlements are not about development or growth for its own sake and certainly not about Business as Usual.
- The look at testing limits to growth in BC hills is about saving the lowland farming area, about housing mass migration in a sustainable way and in places of achieving sustenance with freedom rather than confining masses to unsustainable cities.
- At upper limits, people are housed by increasing hamlet and homestead people density on confined sites, NOT further building on yet more land. The protection of the commons is paramount.



Not just some good idea.



- No choices left but to act in new ways, now, not later.
- What is your leadership role in dealing with global impacts?
- $K(\text{oil}/i) = \text{population/oil} + \text{food/oil} + \text{city/oil} \leq \text{land loss/oil} \times \text{ten to tenth power}$ where $K = \text{time/distance}$.
- Security divisions of world governments have known about these impacts but have NOT proactively planned for the downslope except through use of police and army in mop up roles.



Strategic Sustainable Planning: Global Impacts: Learning from the Old World

Planning for Goldilocks.



- Not too big, not too small, something just right....
- Not urban, not rural, not suburban, something old and maybe new.

Book & Lyrics by Stan Gill / Music by Jeffrey Payne

Is it possible for the formerly entitled to feel happy about the downslope?

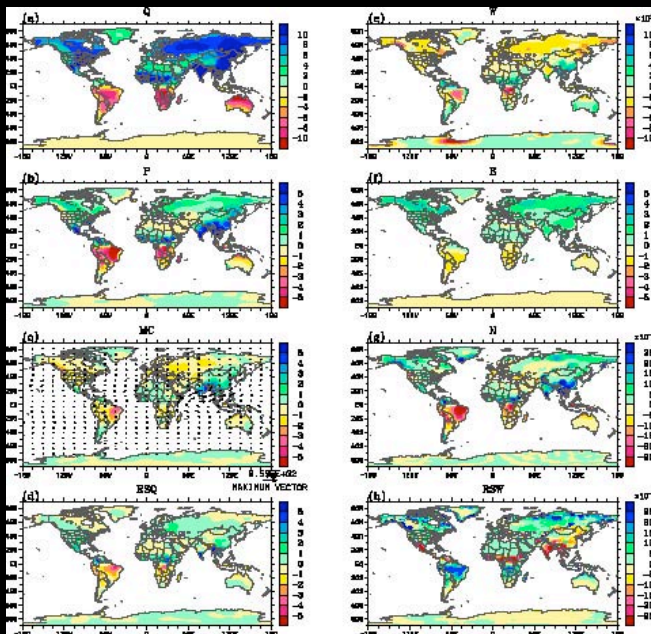
SSP34 RAIC Vancouver • AIBC GM 2011

Balfour + Associates • Strategic Planning

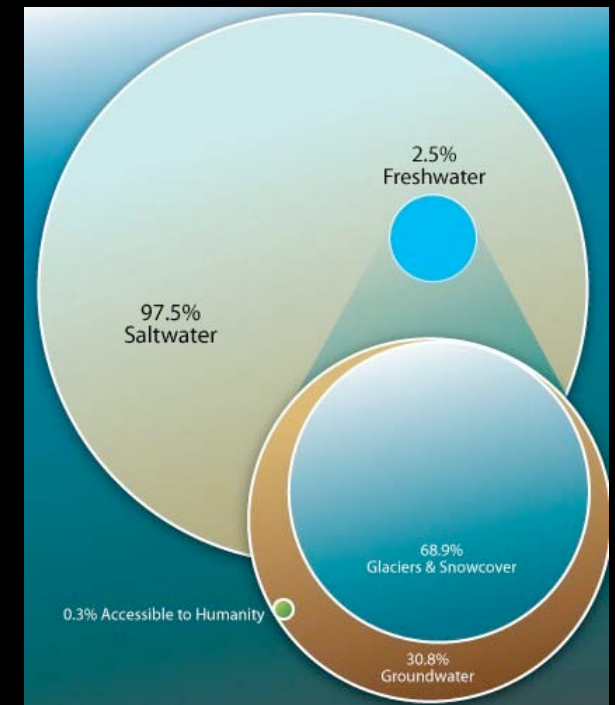
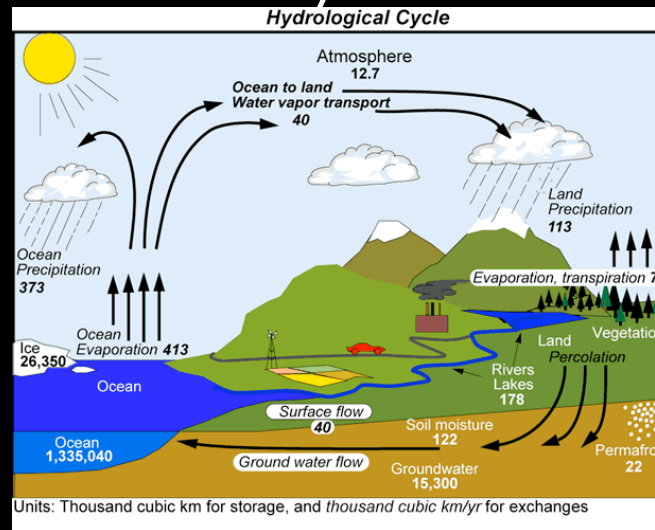


BC Hydrological Cycle:

Global climate shift



Standard Cycle



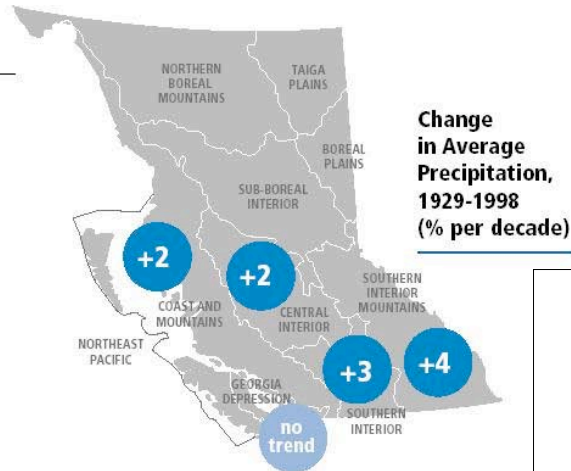
- Drier summers and wetter winters plus loss of water retention due to loss of deep snow pack will exacerbate crop cycles and ability to water livestock. Uphill small scale dams by new homesteaders will be necessary.



BC futures: a Cycle shift in rainfall.

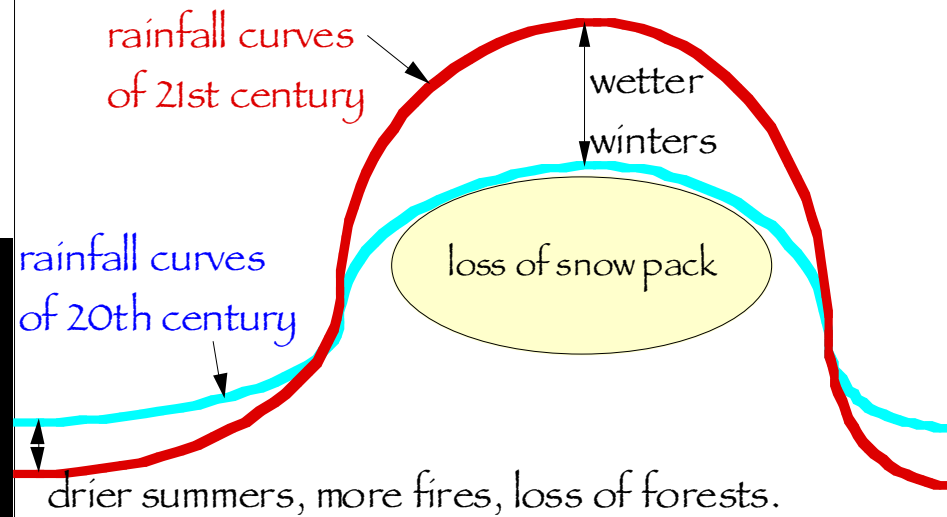
PRECIPITATION

Average precipitation increased over most of southern BC during the 20th century. More water may be available to recharge groundwater aquifers, maintain river flows, and replenish soil moisture. Hydroelectric power generation, irrigation, and domestic water use may benefit. In some seasons, increased runoff may increase the chance of landslides and debris torrents, or exceed the capacity of municipal drainage and sewage systems.



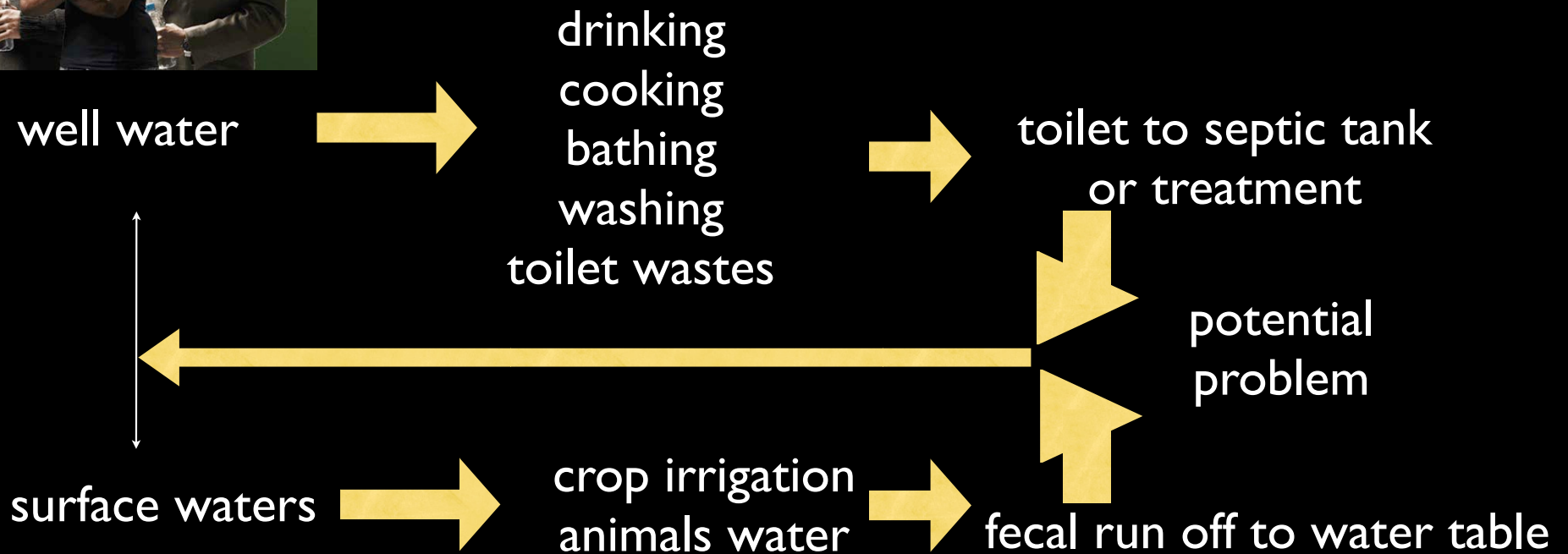
SOURCE: Data from Climate Research Branch, Meteorological Service of Canada. Analysis by the Canadian Institute for Climate Studies, 2001 for the Ministry of Water, Land and Air Protection.
NOTES: A positive sign indicates increasing precipitation.

BC: Hydrological Shifts





Rural **Water** Use today.



Rural Water Use Revised



ADD
UPHILL
DAMS

ADD
OZONE
TREATMENT

well water

CLUSTER
HOUSING

Homestead fractals
in commons

surface waters

drinking

cooking

urine

bathing

washing

fecal

direct to garden

gray water treatment

then to pasture/crops

black water treatment or
incineration or methane generation

crop irrigation

animals water

black water system or
methane generator



British Columbia New Homestead Act 2011

Application to Register Perpetual Settlement In the Name of a Family Trust.

Family Making Application: _____
 Citizenship (time of application) _____ Other citizenship held _____
 Name of Family Trustee and Spouse _____
 Name of First Trustee on behalf of Family Trust _____
 Names of Fellow Trusts in this application: (Minimum of 3, Maximum of 10, 2/3 of sites need user ID)
 Lot 1) _____ Lot 2) _____
 Lot 3) _____ Lot 4) _____
 Lot 5) _____ Lot 6) _____
 Lot 7) _____ Lot 8) _____
 Lot 9) _____ Lot 10) _____

Legal Description: (sample description).

Lot 1 of Homestead Cooperative Farm Site (HCFS) 7 of Hamlet 4
 Of Village District: Coyote Creek, Township: Barriere, City Region: Kamloops
 Of Shuswap Canton, Province of British Columbia.

Acting on behalf of _____ Family Trust, our family agrees to the terms and conditions of title to a) family lot in fee simple, a site of one acre, b) joint ownership of the farm homestead lands collectively held and managed (nominal 100 acres) and joint stewardship and protection of the adjoining ecological reserves (minimum 100 acres- see reverse side for list of rights and responsibilities.) Tenure of ownership is in perpetuity by a Family Trust.

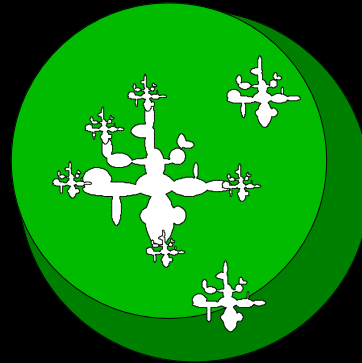
Conditions of Land Grant:

- This land is not to be sold, rented out for others to use for more than 3 years every decade.
- Occupancy of the land must be established within 3 years of this application and maintained by direct members of the family. (Stewardship Clause).
- If for any reason the site becomes unoccupied for a period longer than 3 years, it reverts to Crown ownership for granting to others. In such cases there is no compensation for improvements. (Anti-speculation clause)

Signed _____ Government Agent _____
 Witness _____ Witness _____
 Dated _____

Application (Processing) Fee: \$1000 per home-site within the Homestead. There is no other fee for cost of land. Only open to citizens of Canada, including via inheritance.
 Unserved Hamlets: Main public road to homestead site, water and other services are responsibility of the homestead family. Assistance in establishing Hamlet water and waste treatment will be by consultation only, with no capital assistance. Standards of Public Health still must be maintained. Collection of taxes for road upkeep, any local services and school funding will be through the Canton Government. Hamlet local services are encouraged but designed and controlled by the local users, to fit the context of each site, hamlet and ecological basin.

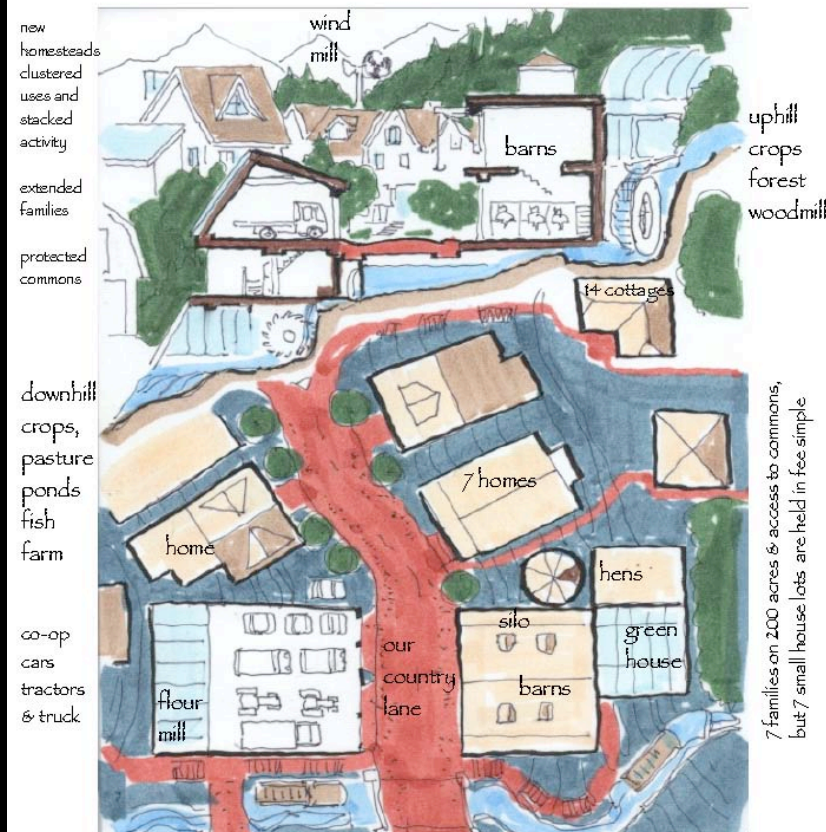
Hamlet model & homesteads



Homestead fractals
in commons

Taboo breaking:
what is family in
post oil planning
terms?- Not a real
estate concept.

The Homestead Cluster Patterns



Rick, I am not sure if you can use info like this in your designs, but it came up today. Space put aside for outbuildings, and lots of them. Repair a machine, dry wood, store feed and straw, dry bamboo, outdoor work or meeting space etc. The first thing I did here was put up outbuildings and mark out other areas for storing seaweed, woodchips and other mulch materials. These need to be somewhere easy to dump off and central enough to be useful without strain. In some designs, this stuff is stuck off in the fringes which is a waste of human power to get and use them.

By the way, besides one half of the roof on the big greenhouse, and some rolled roofing on the potato shed, the rest of the materials were scrounged. And that is another space that needs to be available - where to put scrounged materials while they are being incorporated into housing etc. Don't even know if this is where you were going but it really is missing in design of rustic living. Robin Wheeler, Sunshine Coast



Homestead Act Quick Numbers

7 families per homestead but with fee simple home sites within.

200 acres but half if for farm, half for commons/forest in stewardship

Net/before greater commons belts, 1 000 persons/2 square miles

1 million persons on 2,000 square miles

17 million homesteaders on 34,000 square miles or 9% of BC

Of which half is internal to homestead forest commons, farm part = 4.5%

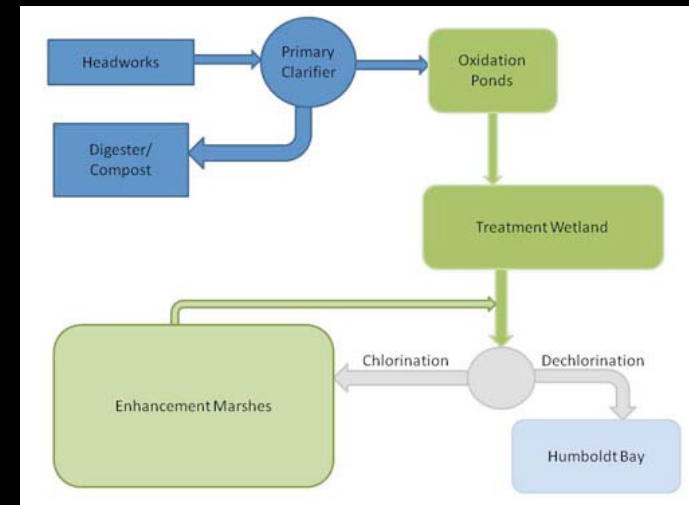
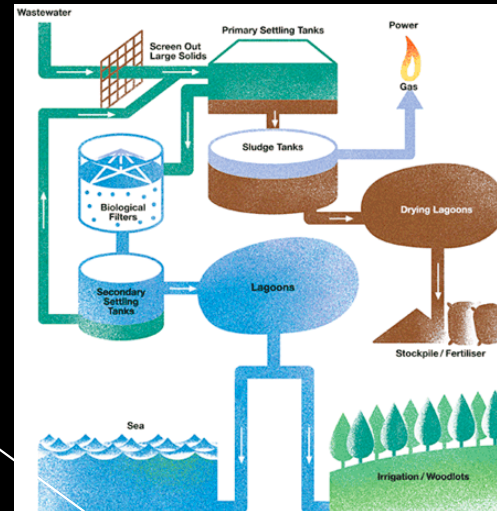
ALR in BC is 3% of BC

This more than doubles farm area and requires biochar+ permaculture

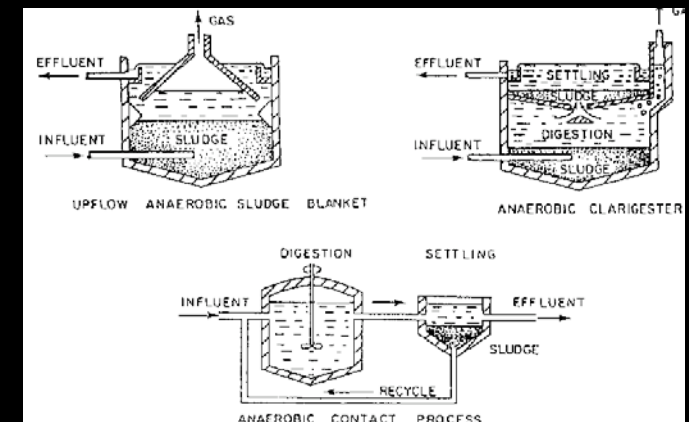
These steps accommodate only part of projected local + refugee needs

Subsistence level is 17 million/limit to growth, startup is 2.5 million persons





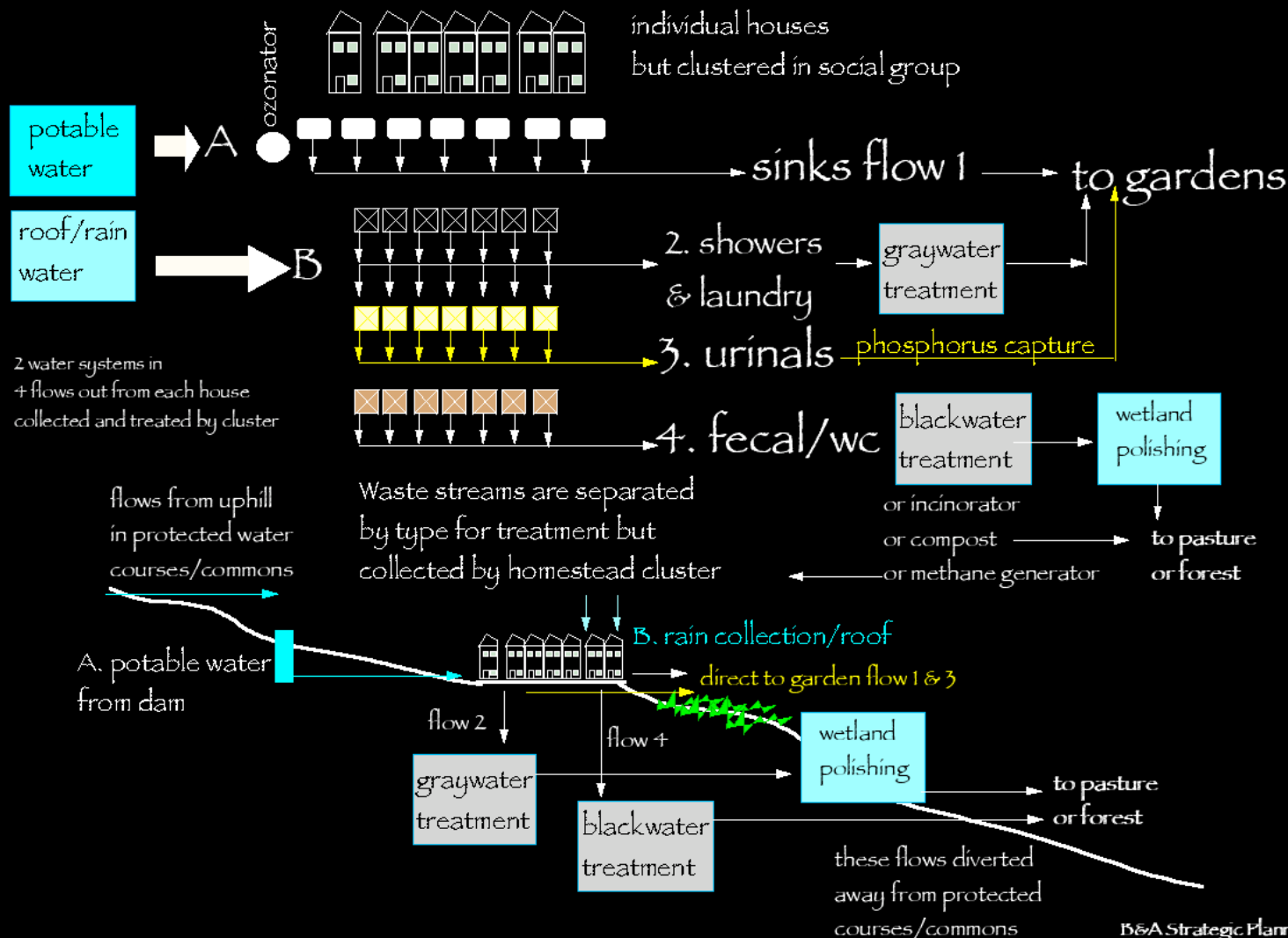
Commons on farm is effluent end field and is away from water-belt uptake zone. Greenzones make the majority of land area.



Homestead & Hamlet Clusters



Water & Waste Management: Post Oil Hamlets and Homesteads



In the 1990s BC permitted new waste treatment options between the old septic tank and the massive city sewer solutions: new small scale units allow for new ways of working with the land. This is a further evolution of the concept adapted for post oil settlements of hamlets, homesteads, mountain villages and what towns remain supportable in a Rhizome pattern of settlement.





city water

Urban H₂O System

Today.....



drinking
cooking
bathing
washing
toilet wastes

expensive & energy intensive
treatment or separation of waste

potential
problems

surface waters

extensive storm
systems

pollutants to water table

Canada: 329 litres per person per year water today.



Urban H₂O Revised



Breaking the oil age planning taboos.

Only Architects can really lead in this area....

- End of: segregated land uses, allow for extended family housing, access options to land, doubling up of people and uses.
- End of: high rises, homogenous land use, monocrops, road building, job creation when no value is added....
- Start reconfiguring all communities to a pattern that is not energy intensive. Key words: Marbleization, Green Fingers for Sustainability, Design with Nature, Limits to Growth, Rhizome community, non-hierarchical land use patterns, end of Entitlement to energy.



Reducing our Human **Impact**

- Post oil settlement will need to be non-hierarchical structures based on minimal servicing, transportation and social services. Non-value-added jobs will not be supportable and most of the now accepted means of service and production will be self provided or of a local community nature.
- As the scale of community increases on the landscape, the control mechanism proposed it for commons and natural areas to multiply twice as quickly as human community areas: that is, human activity is increasingly restricted by scale, not increased. For illustration purposed the power of 7 for humans versus the power of 10 for nature is used.





2011

Homesteads, Hamlets & Villages: Adaptive Settlements



- Loss of oil/switch to railway/steam power (wood fuels)
- Downscale of cities/new sustainable towns on rail lines
- New rail lines to access new belts of farm/town/forest pattern
- Settlements seeking good climate/good soils, water access
- Refugees seeking defensible communities/ new towns & villages
- Rudimentary forms of settlement will be the new norm, not luxury
- Generalists, & few specialists will be needed.
- Relocalization of all industry, not globalization will be unavoidable
- So get used to it and plan for adaption



Food Security Conference 2010

The Ymir Republic 2029: cultural adaptation to the mountains of BC: a typical site for illustration.



Re-assessing the cultural landscape in post oil economy, with climate change and massive population re-settlement.

BS&A Strategic Planning 2010

An illustration.

Ymir, in Nelson Canton
A Farm Village

Local population to 10,000

Village of Ymir

7 local hamlets

50 homesteads/350 farm families.

Extended families are the norm.

Dilemma for extinct developers
& engineers: there is no typical
site in the hills.



“Downer graphics”



Post-oil Age: What Nuclear Family?



- Cheap energy allowed for dispersed living arrangements, the nuclear family as icon, the single family house as one often unworkable and unaffordable option.
- The need to share and double up means extended family re-formation, artificial family or co-operative arrangements. Remaining housing in most sustainable locations will become sustainable by more intensive use.
- The nuclear family will again become the minority condition as sharing and cooperation become ever more essential to survival.

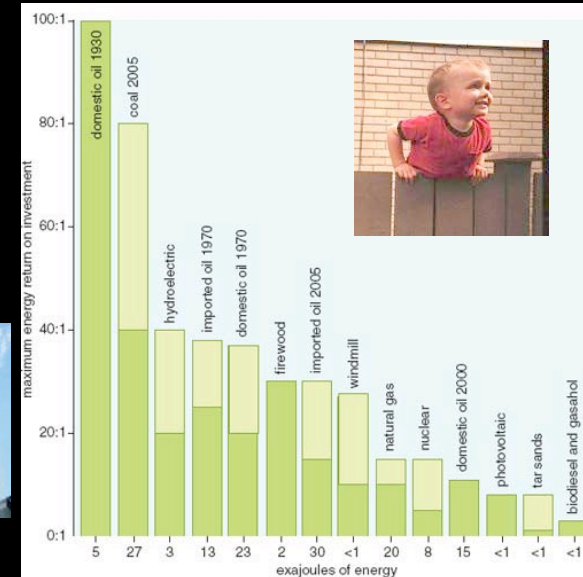


Energy, city & food system collapse



The End of False Economy

- Find out all you can about EROI: Economic Return on Input. One barrel of oil energy recovered a hundred barrels of oil in 1870. We now approach less than 10 for one. Oil sands, less than 4 per one.
- The price of all goods and services must escalate as this price shock ripples across all sectors, food products now based on 10 calories of oil input to get one calorie of food means Food is at greater risk than direct oil users. YOU will raise your own food. NO choice.
- Architecture now is about designing for low EROI food production.
- The future of Architecture is not the cities, but post-oil rural resettlement to self sustaining scales of community.



exporting oil philosophy...



World Scale Adjustments

- 7 billion now, if we reach 10 billion, we are assured of more misery, more likely is a natural event causing a loss of 5.6 billion. Some discuss human caused decimation options. (Bilderberg, etc)
- > 10% or 0.7 billion left static, in place as rural survivors
- < 20% relocation, 1.4 billion are safe in new urban/new rural community
- At the same time the success of the oil based Green Revolution is now going into reverse with the energy price escalation and loss of the fuel sources, phosphates, water and impact from climate shift.



Too late to the Rescue?

- IF we had heeded the warning of the Club of Rome in 1970 we might have used the interval and the energy we wasted to create a true soft landing under plan B. Now we do not have the time or energy, we are into Plan C.
- total price escalation from oil impacts wipes out margins of profit, but before such businesses fail, all NON value added jobs disappear, out of necessity. NOT greenwash excuses, but real value; can the service you provide feed me, house me, keep me alive. If not, the job is gone. It likely did not exist before the oil age and it will not exist in the post oil age either.
- Architects do have two value added roles: what are they?

Leadership/logistics & IN the field shelter provision. Hands hearts and brains.



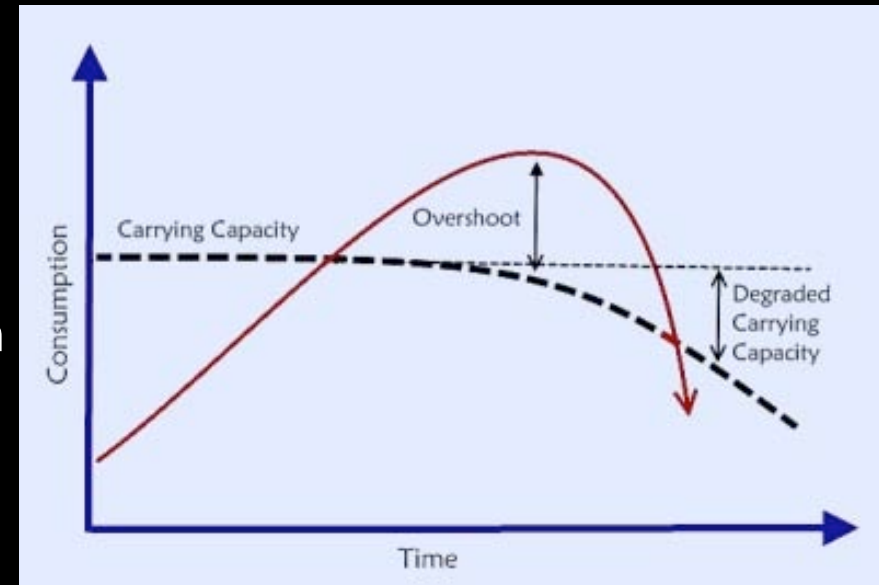
End of oil is?

- loss of 3/4 of electrical grids
- food loss and food transport capability loss of 3/4.
- inability to shift, translates to loss of 3/4 population losses.
- this is the good news....
- bad news planners fear, celebrate 99% loss of population
- Your last gasp leadership can invert these numbers.



Greenwash De-bunking in General

- wishful thinking ignores the reality and now imperils any Soft Landing options
- even 50 success solutions no more Business as Usual;
- New pattern of community, biochar, new rail, off grid water and waste solutions mean new standard of living.
- As urban cheerleaders we have known this, but DO NOT act;
- It is up to you to change this.....



What about the Architect?



Why did you become an Architect?

- Sex appeal?
- Money?
- Status?
- Dilettante?
- Public service, helping the people, the excitement of solving problems? Your job is NOT over in times of social collapse.

Think of Albert Speer.....



Mea culpa

- As part of the biggest consumption of resources in history, Architects have aided in embodying earth's resources into forms and places that cannot function in the post oil near future. We do this even when we know better
- This makes it a moral imperative that we aid in the restoration of balance with nature, harvesting from the oil age White Elephant culture, for the betterment of those who survive the shift in energy culture due to non-availability. Your descendants are at risk.
- We already have more buildings than we will need, but they are in the wrong form and in the wrong place for subsistence or sustainability.



Suburban Triage: Marbleization

- Urban triage planning, including deconstruction of much of the city to restore vital green fingers of interdependent sustainable primary industry will be a minor part of post oil resettlement.



Rural, Urban & Village Policies

- pro-farm policies
- less taxation
- favour family/village scale
- decentralize farming
- lessen monocultures
- traditional modes/energy
- aid in urban triage
- recover good soils lost
- favour family/village scale
- make urban farming
- aid marbelization/ green fingers
- traditional modes/energy
- new village pattern support/ rail transport
- aid localization moves
- favour family/village scale
- traditional industry!
- maintain communications
- traditional transport



Alpha City: abandonment

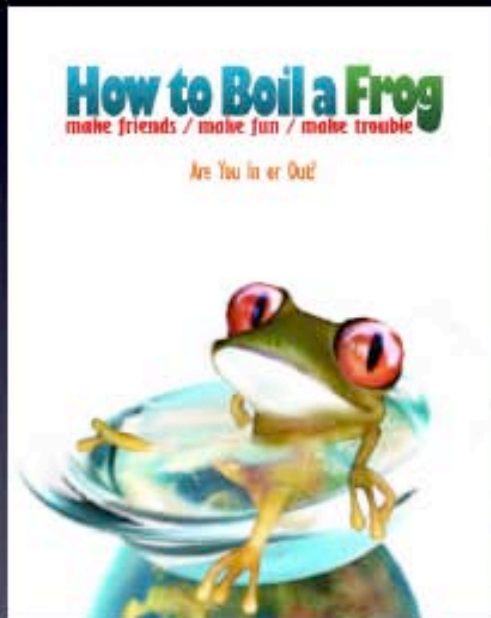
Rank	Population of city (proper)	Population of metropolitan area ^[31]	Percentage foreign born ^[32]	Expatriate cost of living ^[19]	Metro systems by annual passenger ridership	Top 10 metro systems by the route length	Annual airport traffic by passenger ^[33]	Number of billionaires (U.S. dollars) ^[34]	Gross Metropolitan Product at PPPs (Total output; not per capita) ^[35]
1	Mumbai	Tokyo	Dubai	Tokyo	Tokyo	London	London (5 airports)	New York City	Tokyo
2	Shanghai	Seoul	Miami	Osaka	Moscow	New York City	New York City (3 airports)	London	New York City
3	Karachi	Mexico City	Amsterdam	Moscow	New York City	Berlin	Tokyo (2 airports)	Moscow	Los Angeles
4	Delhi	New York City	Toronto	Geneva	Seoul	Madrid	Atlanta	Hong Kong	Chicago
5	Istanbul	Mumbai	Muscat	Hong Kong	Mexico City	Moscow	Chicago (2 airports)	Los Angeles	Paris
6	São Paulo	Jakarta	Vancouver	Zürich	Paris	Seoul	Paris (2 airports)	Dallas	London
7	Moscow	Sao Paolo	Auckland	Copenhagen	Hong Kong	Shanghai	Los Angeles	Istanbul	Osaka
8	Seoul	Delhi	Geneva	New York City	London	Paris	Dallas	San Francisco	Mexico City
9	Beijing	Osaka	Mecca	Beijing	Osaka	Beijing	Frankfurt	Chicago, Mumbai, São Paulo, Tokyo	Philadelphia
10	Mexico City	Shanghai	The Hague	Singapore	São Paulo	Tokyo	Beijing	n/a	Washington, D.C.

Death of
Alpha
Cities...
unavoidable



What can get worse- \$ & Land

- Peak Oil Price shock creates banking instability & greater divergence between rich & poor; we better learn to help each other. (For local economic protection: Bologna models.)
- Loss of CAPITAL PORTABILITY means more migrants move without assets or ability to pay for new lands or shelter. The value of most goods declines, but not food, water or land needed to access them.
- This introduces a new risk of labour contracts, even a new partial enslavement or a “new serfdom” as access to land is controlled by those that have land in the beginning.
- Hopefully the fact that the government in some provinces and states have large land holdings and the ability to provide land but also restrict access to make sure land & access to land is not abused.



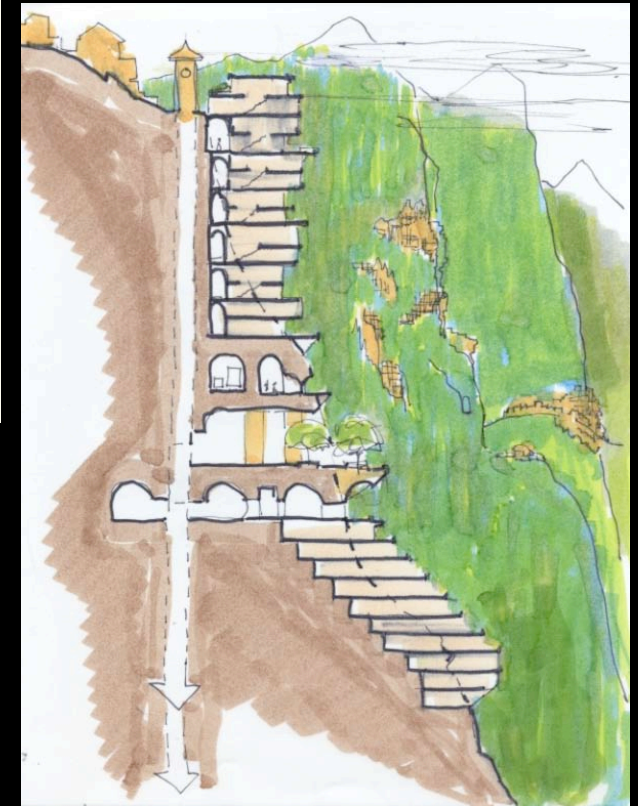
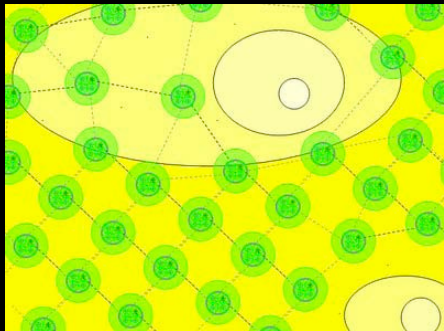
Uphill solutions



Re-Learning Old World Lessons



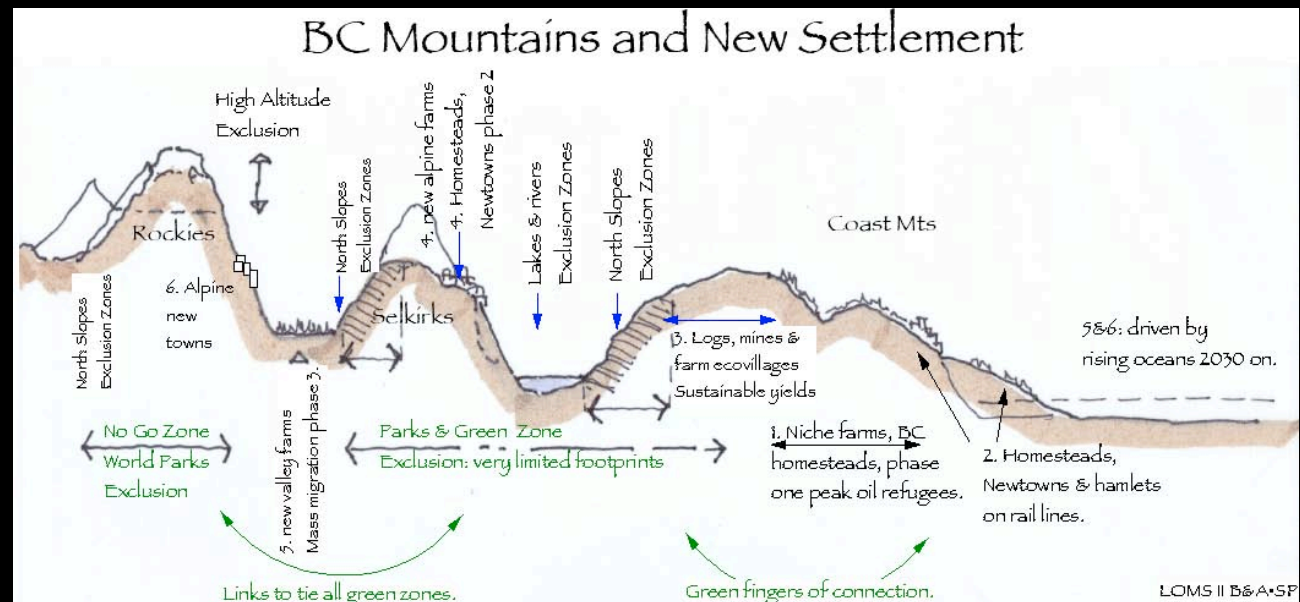
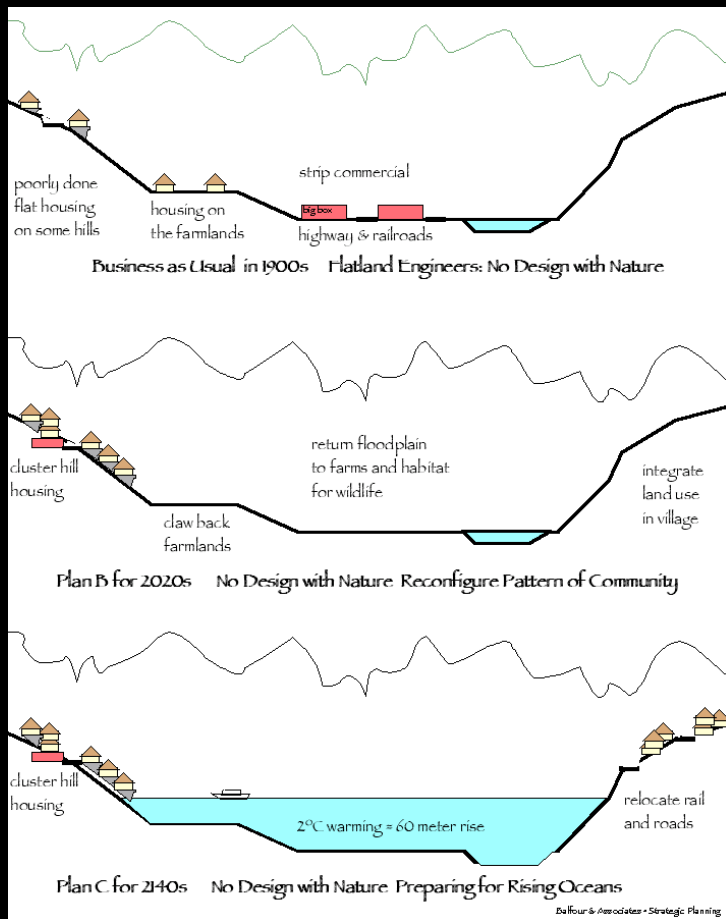
Town Edge: not
more suburbs but
new Village, farm &
forest



"A Theory of Power", by Jeff Vail. An exploration of the development and structure of hierarchy and empire through political anthropology, economic theory, evolutionary ontogeny and developmental psychology.



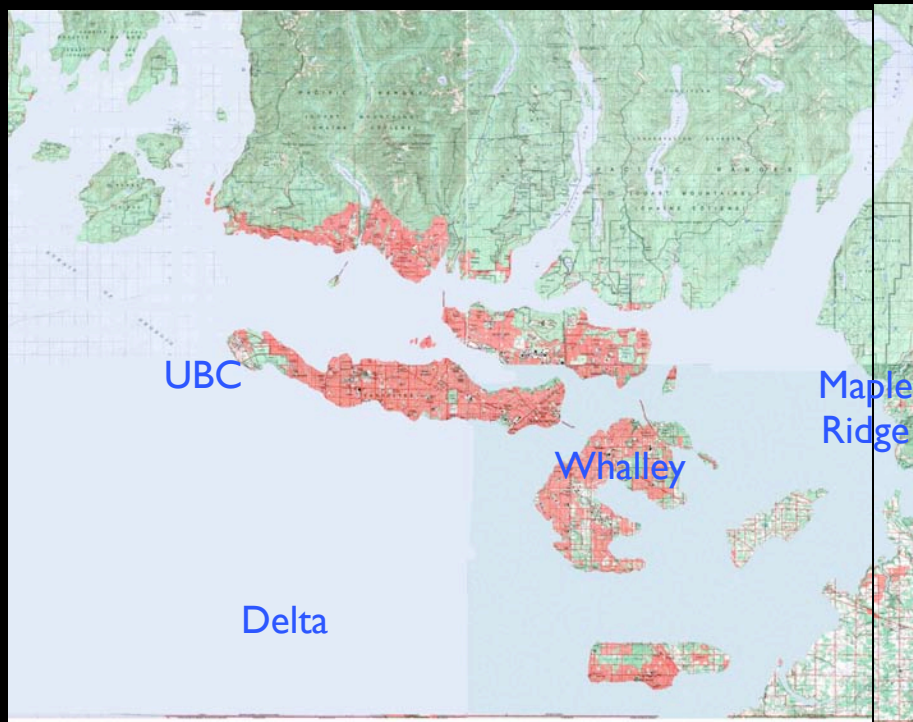
BC: mountains as asset, not a barrier.



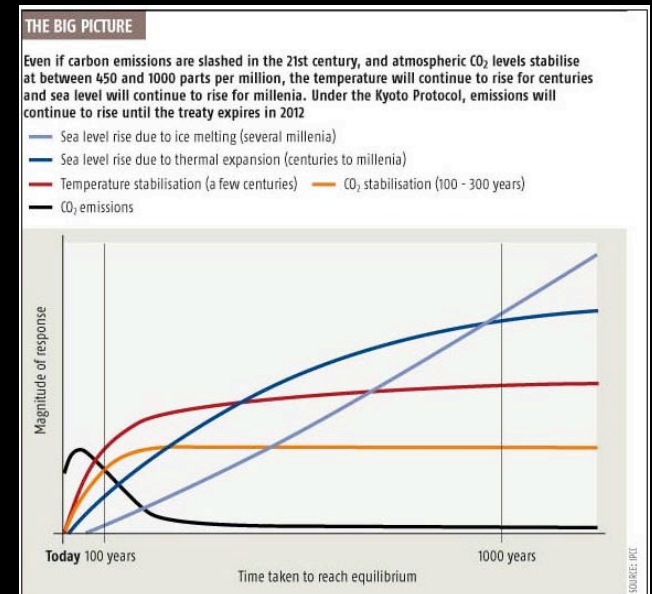
Higher Tides: Ice Sheet Shifts

60 meters/
200 feet

Timing?
uncertain
but
imminent



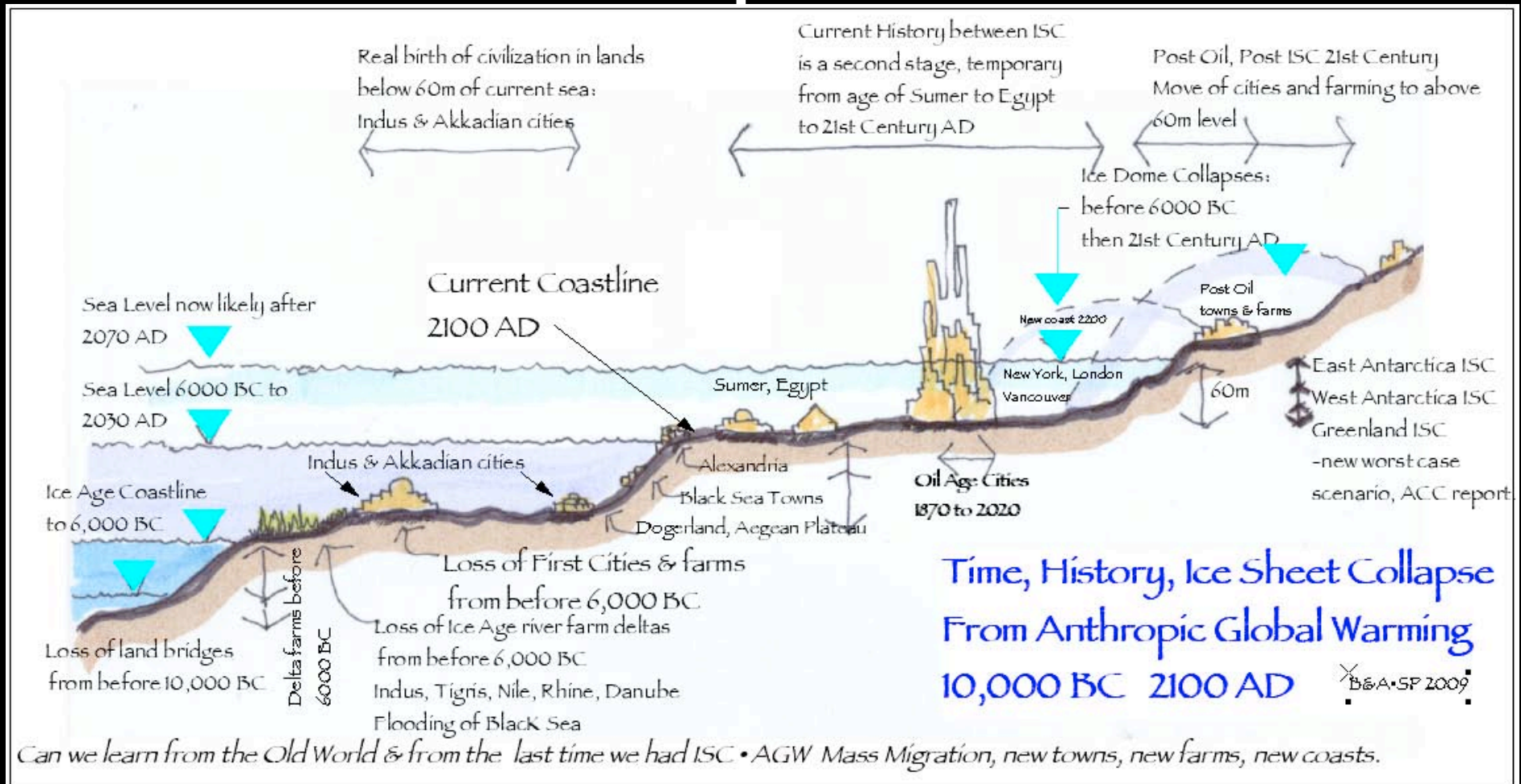
The pay-back for
wasting a century of
carbon fuels.



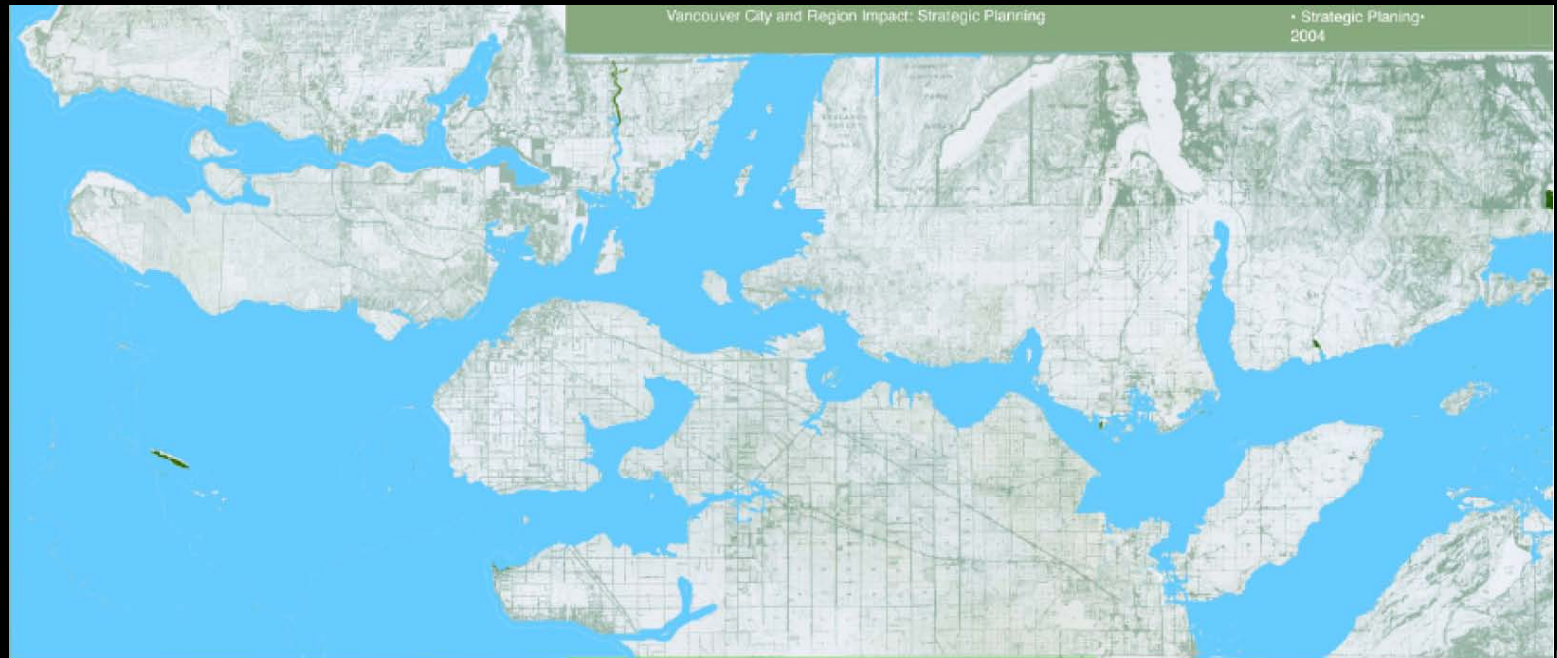
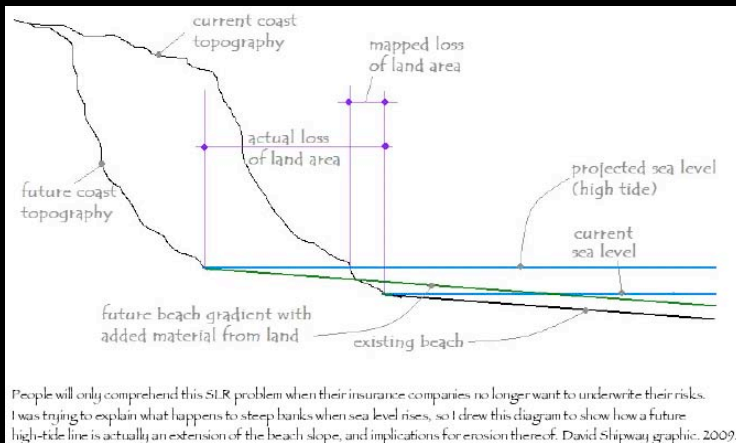
- New Antarctic on Site researchers, more blue lakes, more melt, more subsurface lubrication= accelerating ice sheets sooner than making corrections graph on the right. Ice Sheet Collapse is possible in one century.



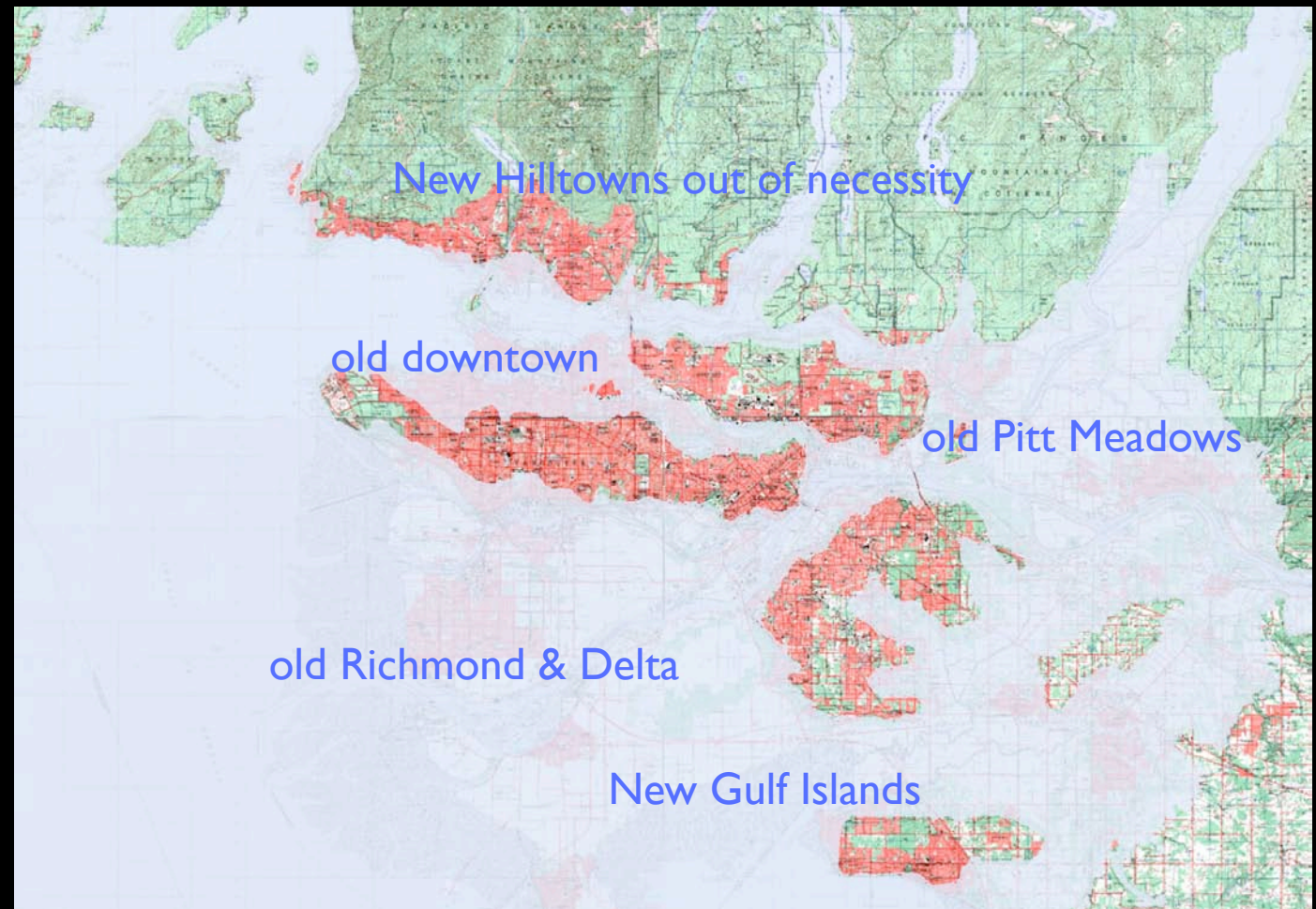
20,000 year history of tides. Ice Sheet Collapse: Abandonment



Contingency: 6m Ocean Rise: Vancouver



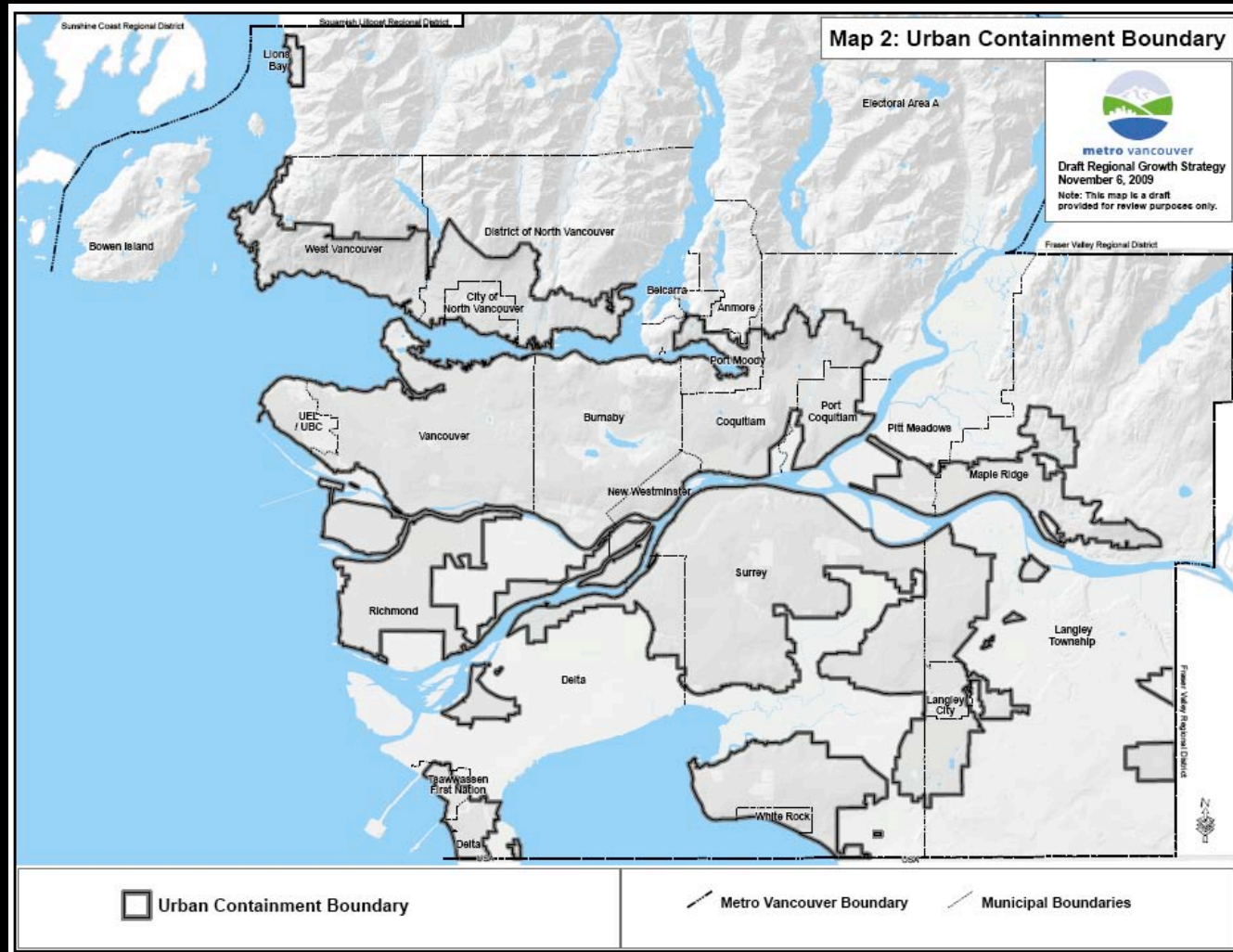
Impact of Ice Sheet Collapse with 4° global heat gain, a 60m ocean rise.



Failure of Vision

Attempts to contain actually encourage sprawl instead of leaving green fingers and moving to compact hill towns off the farmland and floodplains

Linear Planning:
RSG



Triage city: North Vancouver



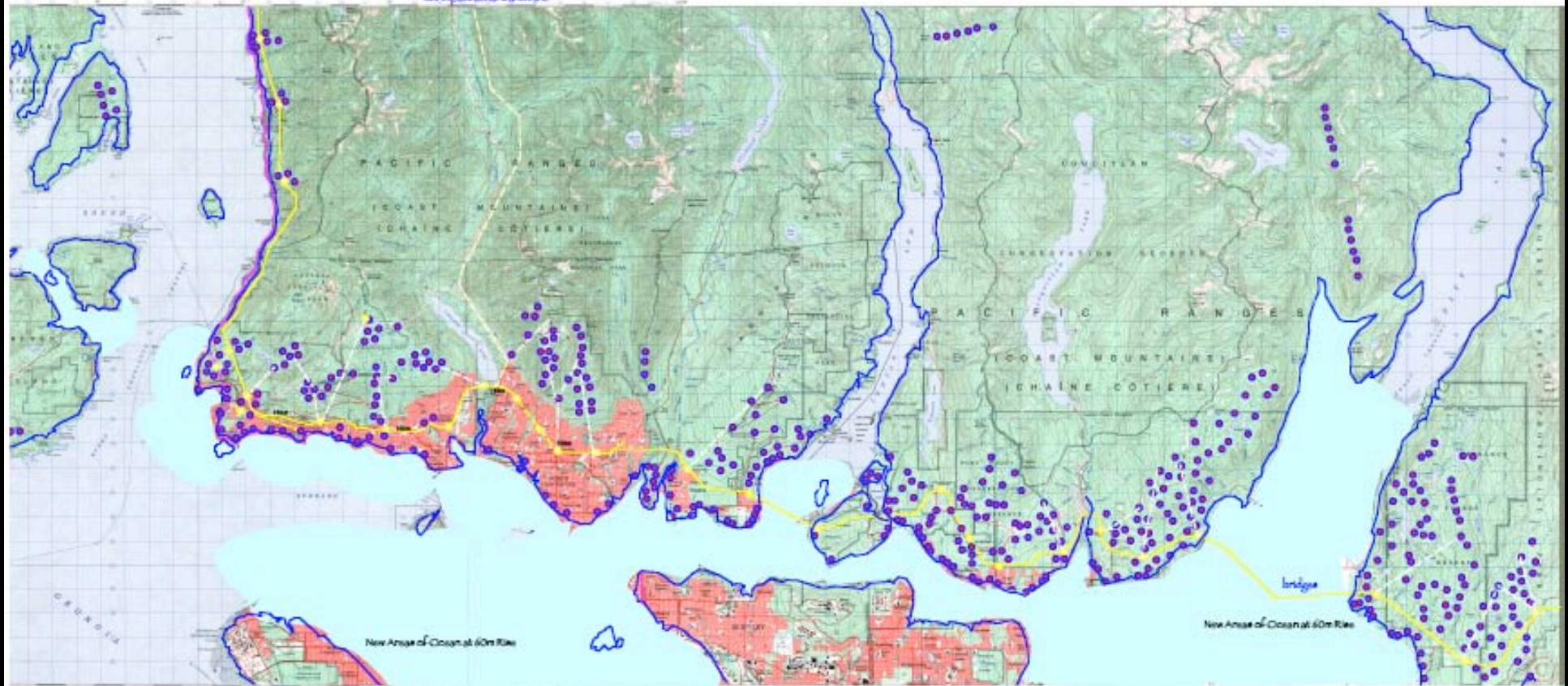
Post Oil, post ocean rise, localized economy: small scale and fit into the landscape.



Metro Vancouver Inner Ring North Shore Rail Network

Alternate coastal route for rail
or for cable rail/Novel system
low impact aerial transit line

Existing Rail Lines/North Shore 60m Tide Line 2060 Planning for High Tides



- Existing North Shore Rail line and immediate links, plus strategic first stage tunnel relocations for service and new town uses.
- The 60 metre ocean level rise impact on North Shore and Burrard Peninsula.
Reference: Scientific American Feb. 2008 Report on Antarctic Ice Sheet Acceleration into the ocean.
- Upper Level New Railway for Port of Metro Vancouver, and in response to World Bank, Most Likely Impact of Ice Sheet Meltdown.
- White lines indicate gondolas and other vertical public transportation links to hillside and village sites between green fingers.

Balfour & Associates • Strategic Planning



Mediterranean Fleet?

Lean Market Adjustment is
NOT a reversal



- This is not the same as going back to 1800.
- It will be though if we do not adapt quickly.
- We can stay ahead of collapse scenarios
- We can rescue the best of low energy tools
- We can build & adapt new technology
- The cooperation of the community is key
- This is where we should learn from Bologna

Rising oceans to any degree will increase the need for water surface transport.

Current connected coastal areas become islands.

Interior connections by rail will have to be re-built in new corridors.



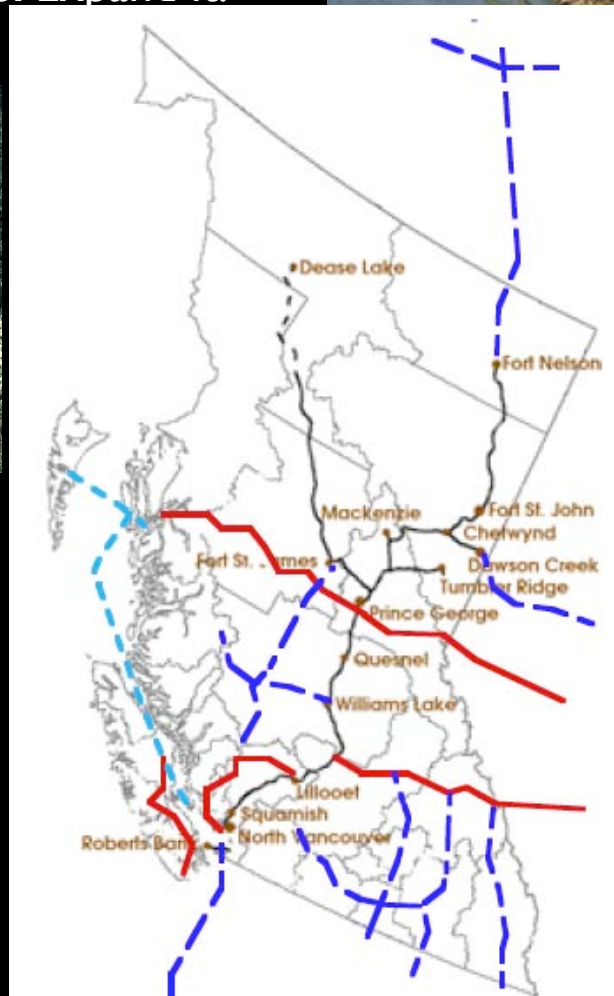
Railroads & Transition Towns

- Before the cheap energy ends, massive social upheaval will occur because we have not adapted our community to operate in an efficient manner without cheap oil, gas, hydro and all other goods that are affected by energy cost input.
- At a very minimum we need to restore railways inside and between towns, to reconfigure urban density and provide green fields and forests to make each settlement secure and sustaining.
- A town not on a railway is not going to connect with any other.





After the Oil Economy:
Back to Rail
& Expand it.



New County Government
Eco Basin Rule





Post Oil Settlement: Role of Railways is Paramount

- Move from road back to rail: less movement/ only essentials
- Trading for complimentary products by region essential
- Loss of road dependence can be used to control migration easier
- Mountain rail lines: creates string of pearls of valley communities
- Mountain towns: can we adapt to have aerial tramways?
- Prairie new towns: what railway grid can be supported?
- What role of senior governments in the adaptive process?
- Can new air-ship traffic by 2020 replace the failure of current conventional air traffic as we know it in 2007?





The Vertical Web

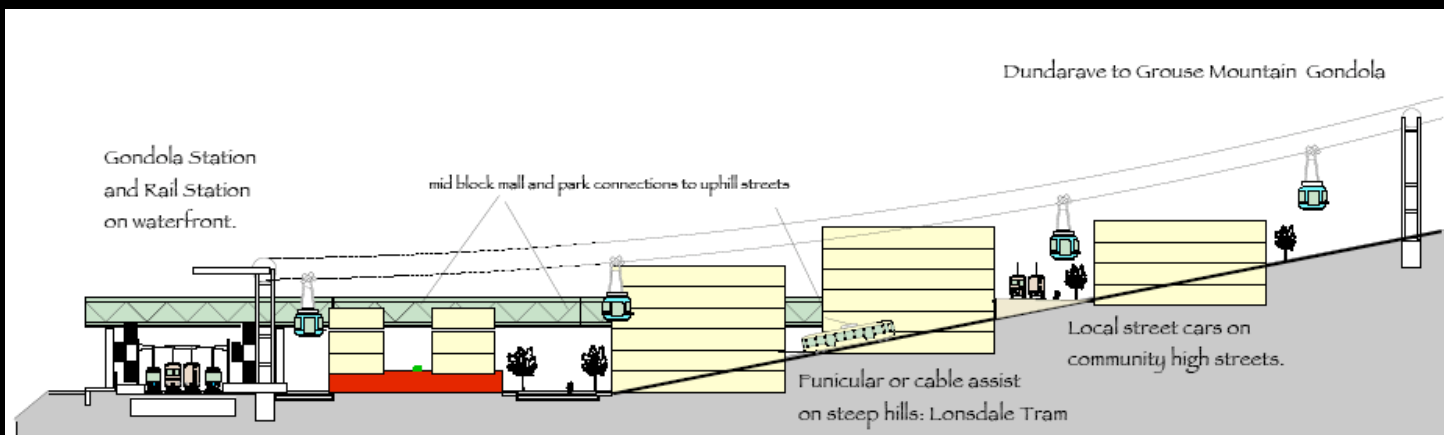
Gondolas



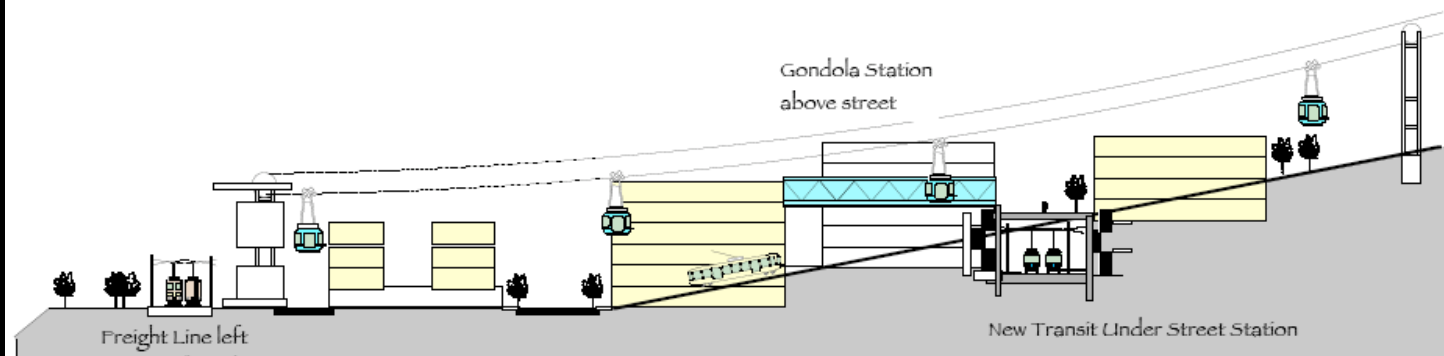
Future townsites.....

Current hillside development is just a flat land attempt to develop. Efficient hillside development specializes vertical movement. Replanning for hill town patterns starts now, with rail plus gonodolas. Both are part of the public transportation system.





Phase 1 Startup rail on existing rail line



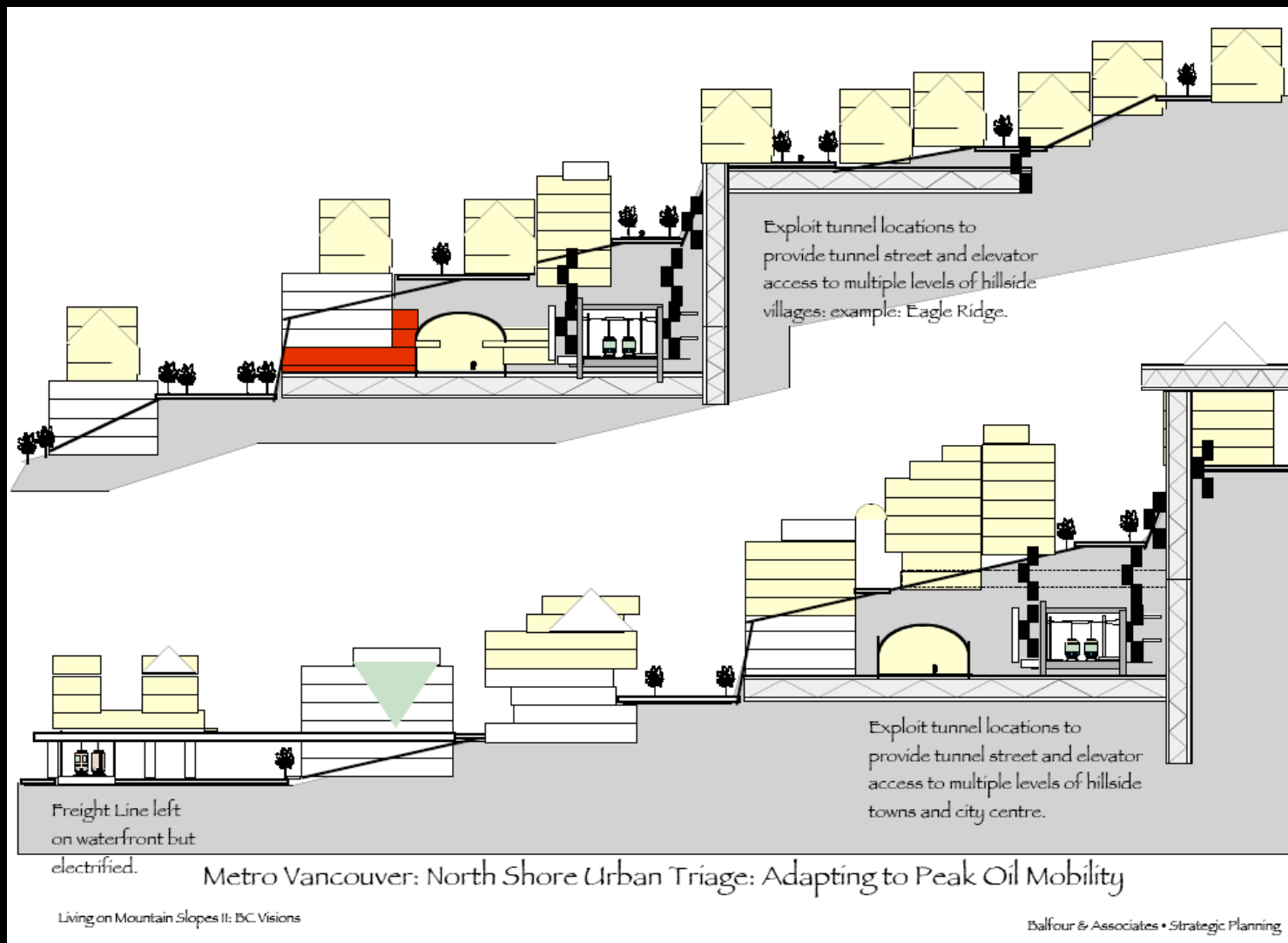
Phase 2 Urban rail locations shift uphill

Metro Vancouver: North Shore Urban Triage: Adapting to Peak Oil Mobility

Living on Mountain Slopes II: B.C. Visions

Balfour & Associates • Strategic Planning



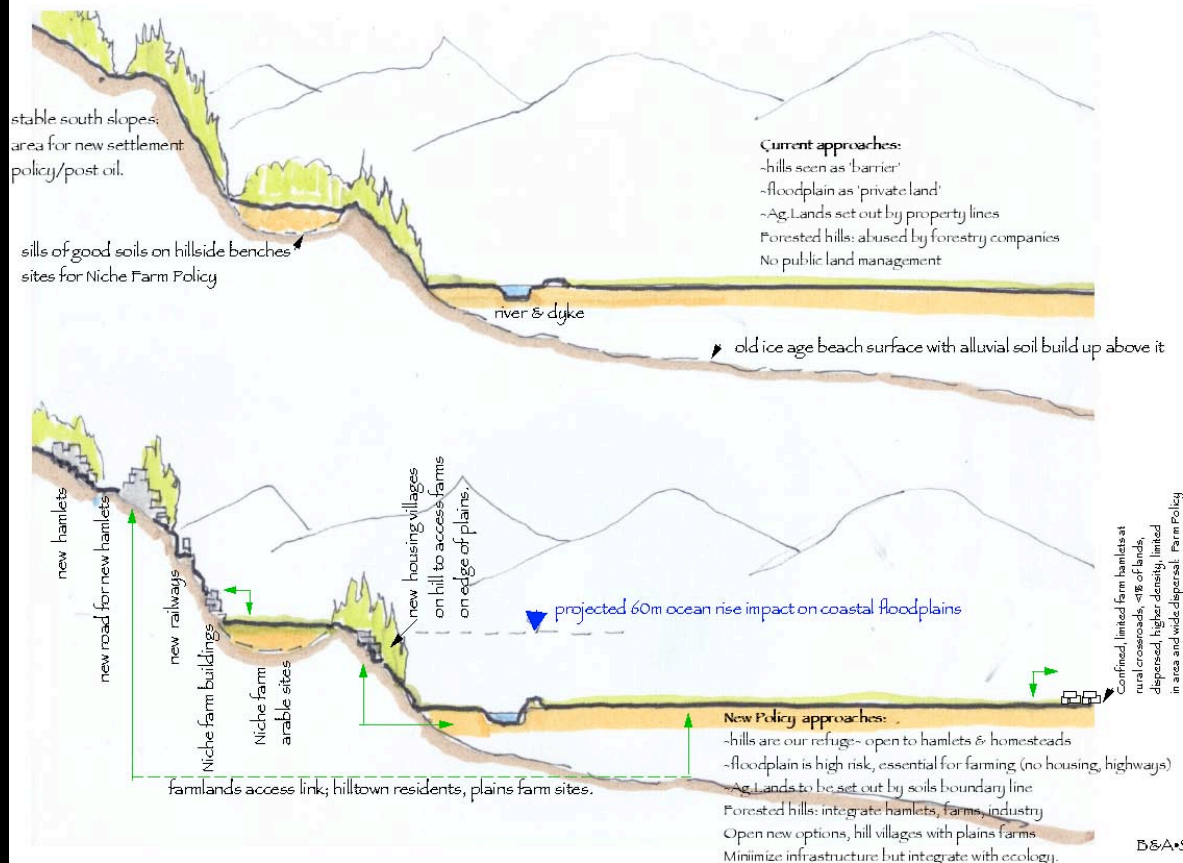


Post Oil Metro



The Hilltowns Post Oil

Attitudes to Land & Post Oil land conservation.

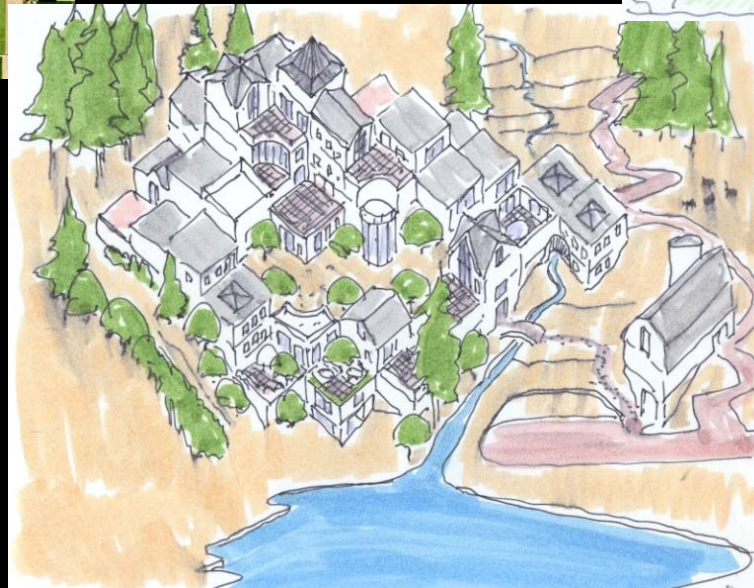




Architects & Post Oil Resettlements Network



Defensible Village



Defensible Farms

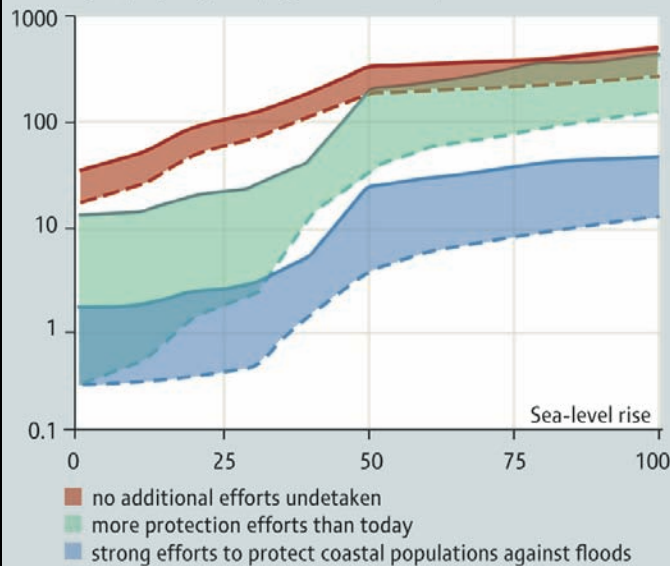


Post-oil Food: Resettlement

Legacy for your children...

Population flooded in coastal areas in 2080

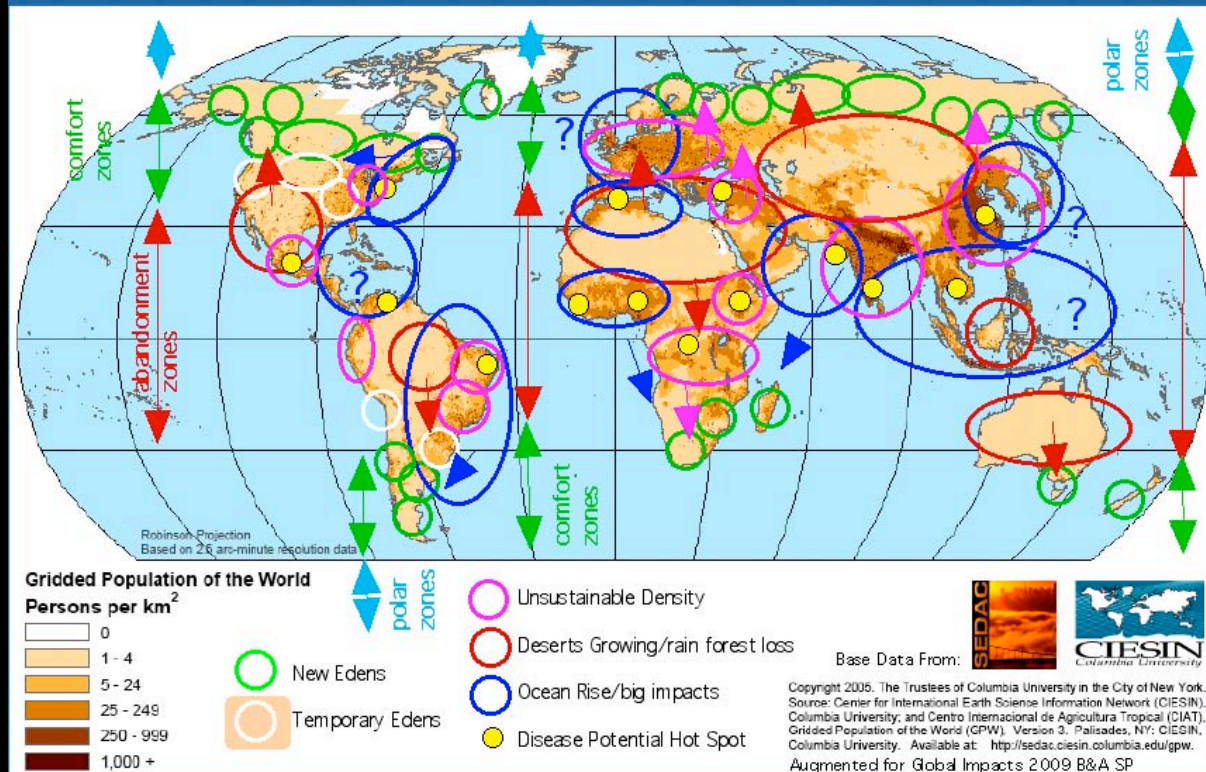
Million people per year (logarithmic scale)



Note: The upper margin of each band shows the amount of people affected in the A2 scenario according to which global population will reach 14 thousand million by 2080 with the lowest GDP of all IPCC scenarios. Therefore little capacity exists to adapt, and more people will be affected by floods. The lower end of each curve shows the impact for the A1/B1 scenario assuming the highest per capita income and world population at 8 thousand million, allowing for higher investments in the protection of the population.

Source: H. Ahlenius, GEO Ice and Snow, 2007, based on Nicholls, R.J. and Lowe, J.A., 2006.

The World: Population Density, 2000 Mass Migration from Global Impacts GPW [v3]



Tossing Land Use Definitions



What new patterns for sustainability

- Loss of large unsustainable city centres (lean market adjustment)
- Marbleization in the suburbs- reclaiming from past mistakes
- new villages rail oriented and eco-basin managed (traditional)
- new northern tier of towns/new rail systems (visionary)
- new energy harvesting (techno-rescues)
- multiple pathways for maximizing food production
- new industries recycling, reusing, co-operative models (old world lessons.)



If we act fast....



Plan C: Applied Science Now



- New patterns of community at every scale: a downscaling for re-localization of production and social networks; homesteads, hamlets and villages to provide half the population another chance, access to land even though this is a modified lifestyle. Canton governance of eco basins in BC.
- Canton assessment, a Design with Nature exercise leads the way into new settlement and farming and avoidance of NO GO zones.
- Not a development plan but a relearning of Old World patterns and a more non-planned and evolutionary cultural landscape.
- New Homesteads are a social network, and interdependence model. (Ostrum, Nobel Peace Prize, Economics.) Images of farm, hamlet & village.



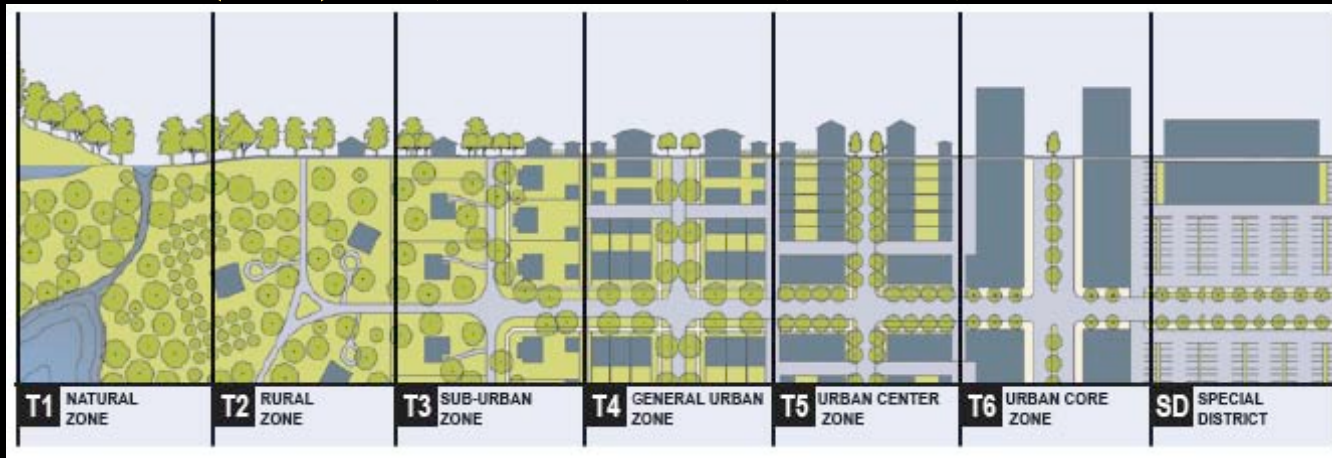
NO
GO
zones

Rural
Revival

Marbleization

Triage

NOT sustainable

Problem
Solving
-patterns
&
adjustments

Attempts to Codify Food Production in Settlements

-can be overly prescriptive?

- more energy in analysis than of benefit?

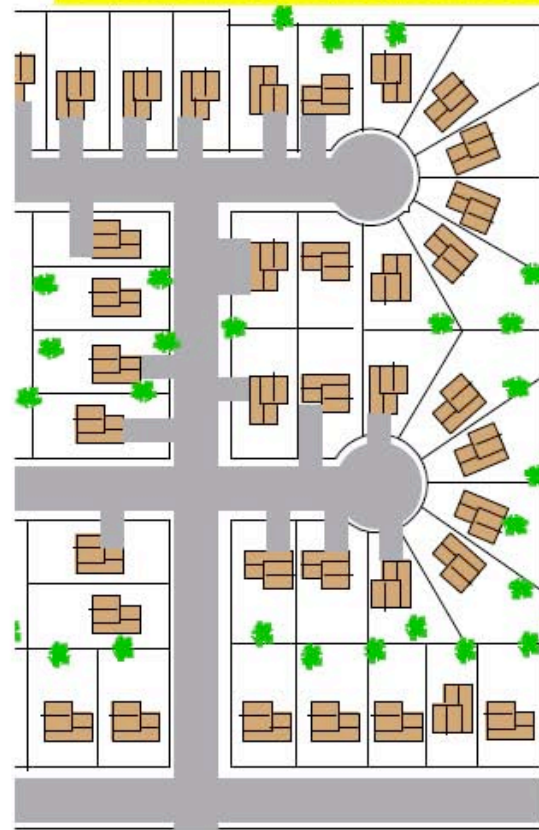
- may preclude just good design & common sense?

-still worth exploring as a pattern language tool, developing methodology-
(within limits).

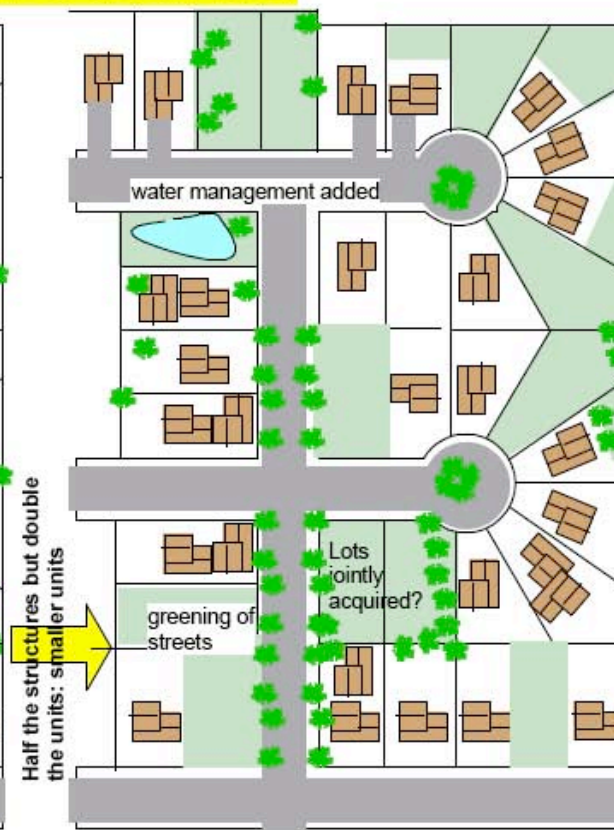


Marbelization of the Suburbs: Green Fingers and Sustainable Home and Community Transitions

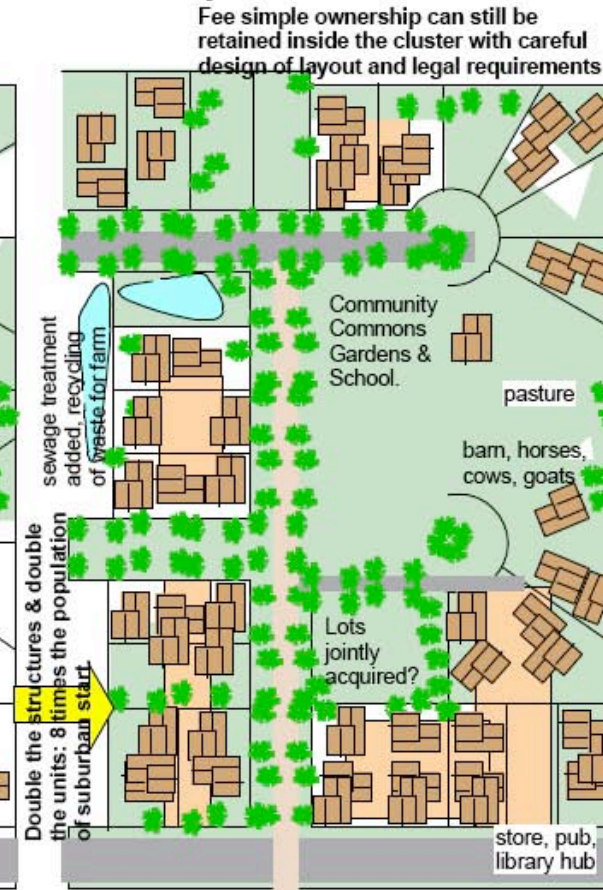
Deconstruction of Suburbia



Before Peak Oil Impacts: commuter's haven.



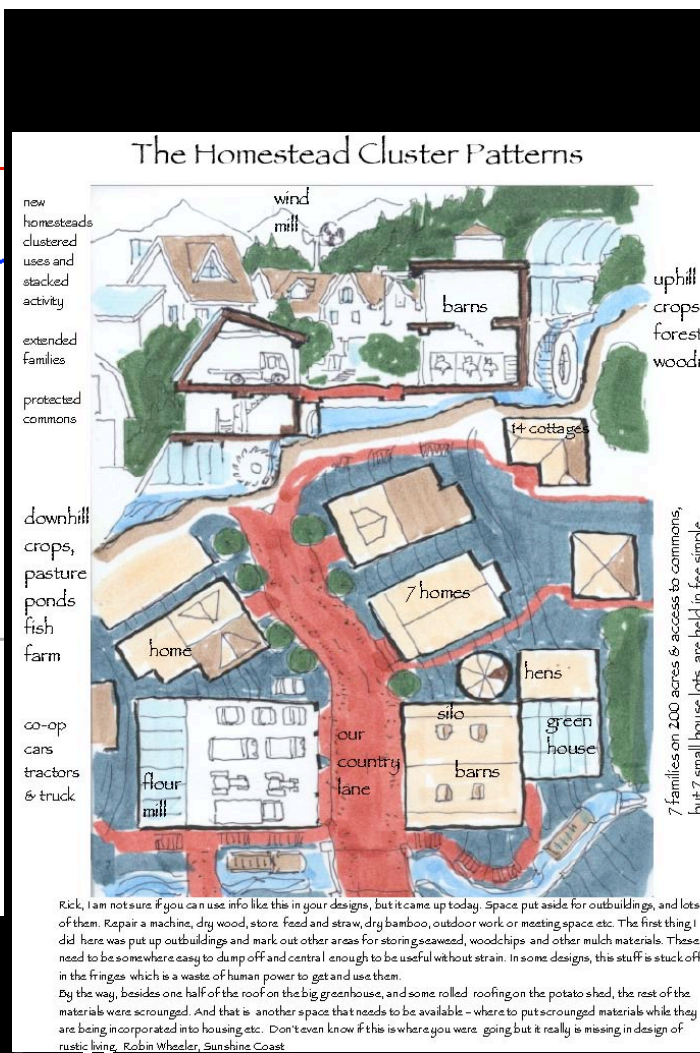
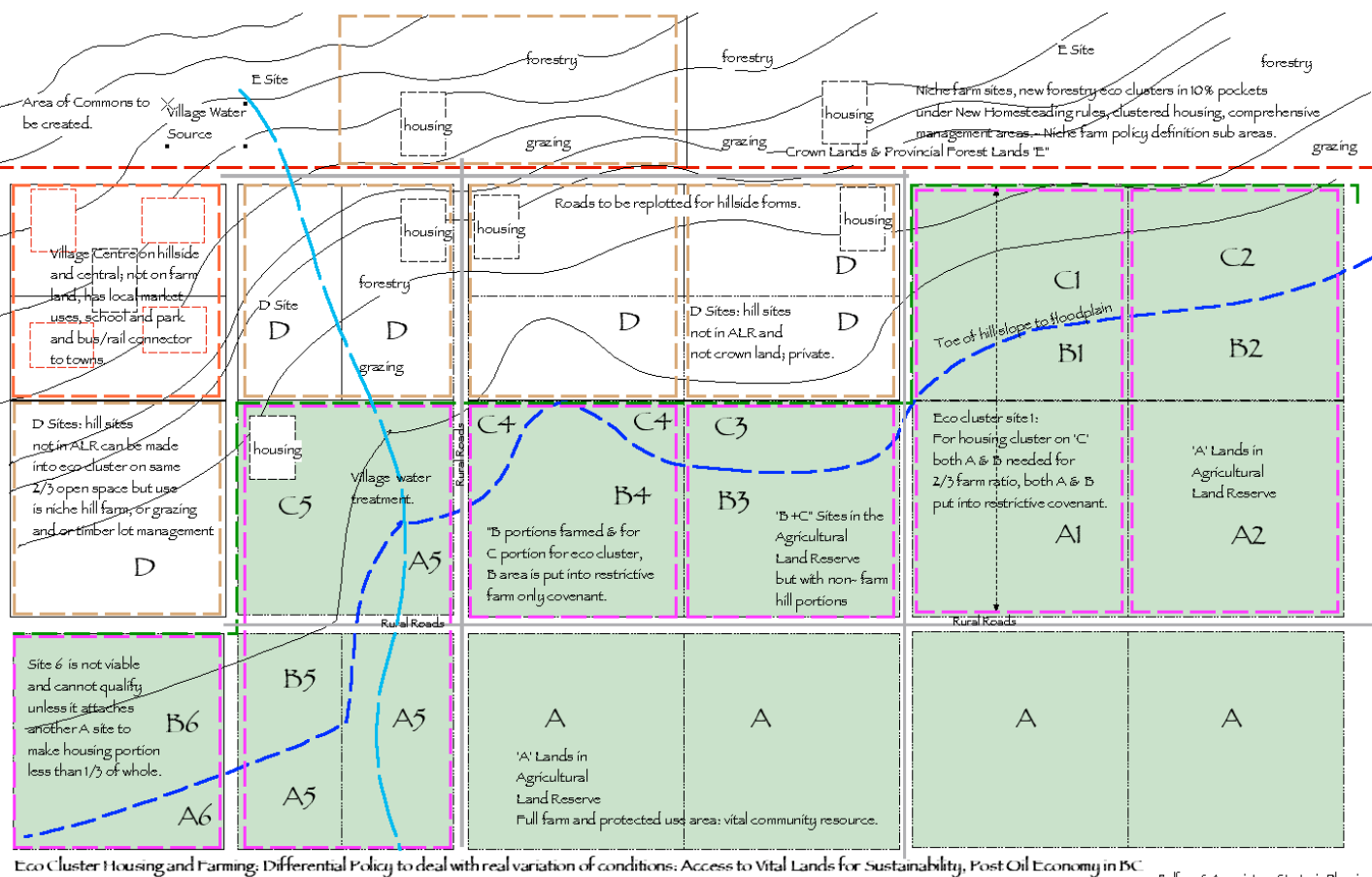
First stages of transition: missing teeth become gardens. Houses moved to free lots and infill of some lots to create village clusters in the new green commons.



Sustainable forms captured; farmland for food, clustering of buildings to save energy, creation of community feeling and village spaces, addition of missing land uses to complete the village.

Managing the Death of Suburbia: Reclaiming Green Fingers: Turning the remainder housing into the Village





Access to land, a new urgency.

Farms access with development on hills.

Industry in a post-oil future

...if we have one.

- As Globalization, dependent on cheap energy goes into steep decline, we will be more discriminating about how much and what value of goods we buy from abroad.
- This means reinvention of local production is critical now, including retraining of all of us to dying crafts and methods of production.
- Reuse, recycling and retrofitting will require new skills; develop them now, while we can.

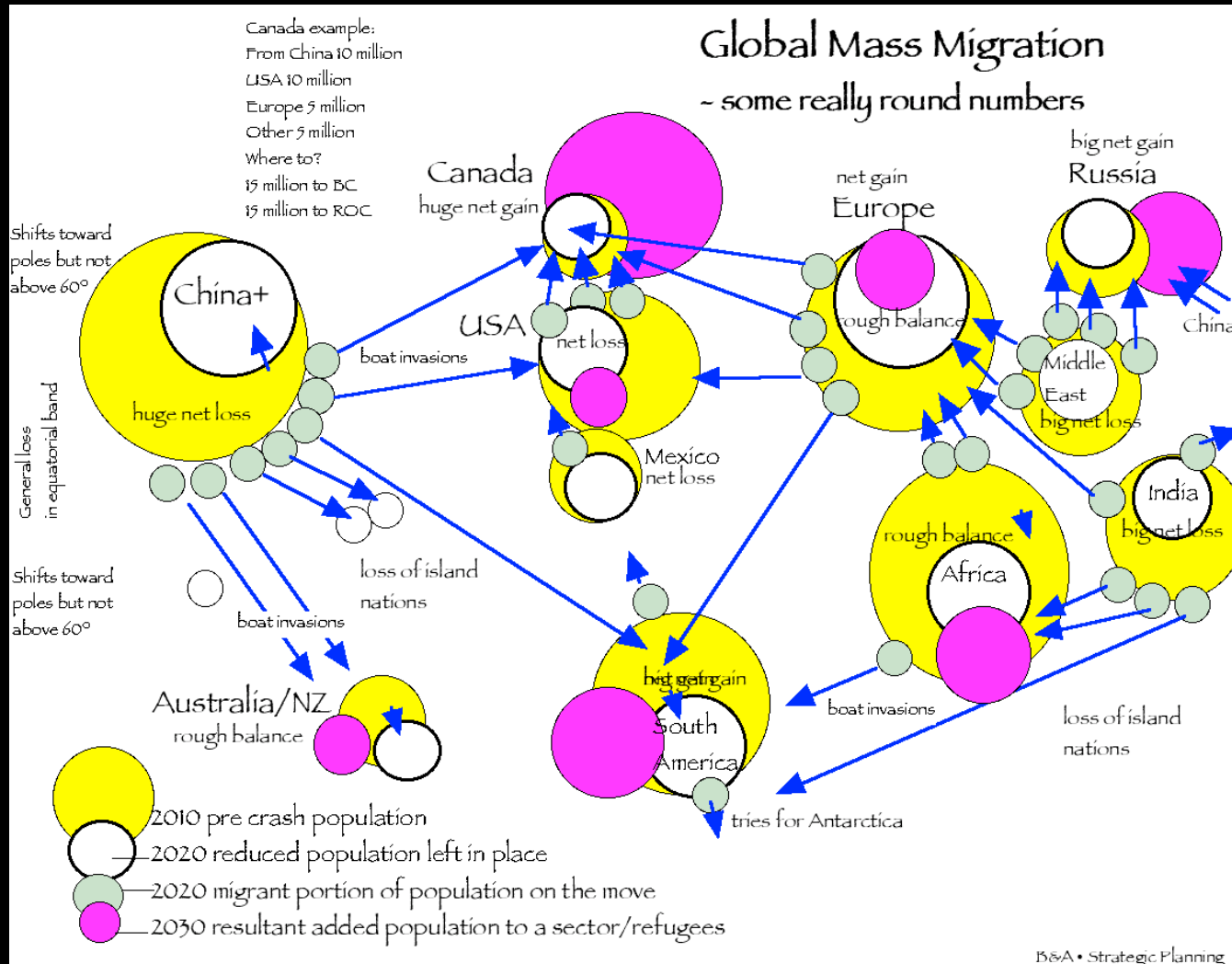




Social Planning Cyborgs, Serfs Or Rebels?

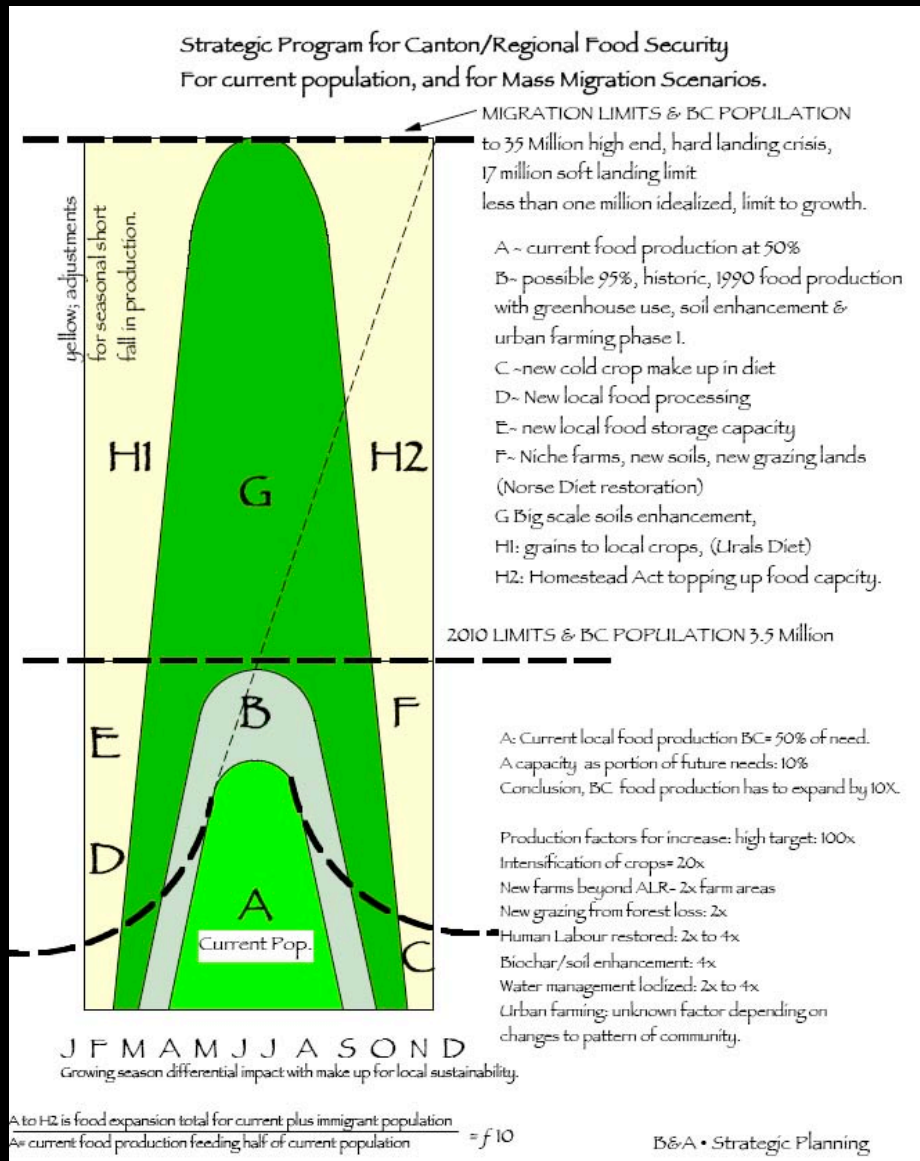
Social Options in the Post Oil Society





Is soft landing possible?

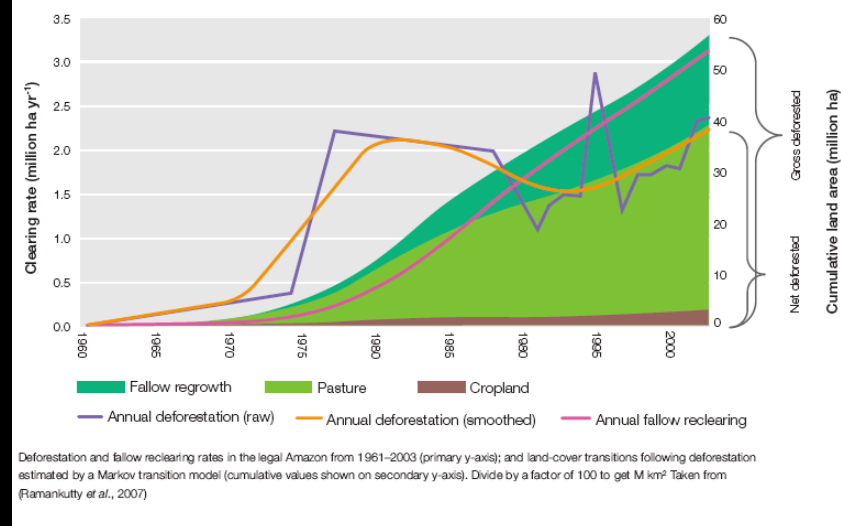




Overshoot Risk: BC

← Extremes tested and found wanting:
BC as a New Eden
or a last lifeboat Scenario.

Figure 7. Deforestation and fallow reclearing rates in the legal Amazon from 1961–2003.



Amazon example: deforestation ↗



Canton= Eco-basin Management

- Direct Democracy
- Stewardship of the Ecological Basin, or 'tribal land'.
- New thinking must use land inventory analysis to avoid and protect the vital parts of the commons, or it is all for naught.
- Cooperative society, the sharing of resources starting with water, land and food it essential to survival and sustainability.
- Social capital is vital component of nurturing of culture.



14 Cantons

The map displays the First Nations territories of British Columbia, color-coded by language family. Major territories include Kaska Denethah WP (red), Tlingit WP (orange), Gitksan WP (pink), Haida WP (blue), Rupert/Skwauna (yellow), Prince George (orange), Shuswap (red), Kootenai (pink), and others. The map also shows the Pacific Ocean, BC Canton Governments, and various First Nations groups like Tutchon, Tlingit, Tahltan, Gitksan, Haida, Nuxalk, and others. A legend on the right explains the color-coding and provides a list of First Nations Peoples and their language families.

'A BASIC GUIDE TO NAMES'

Listed below are the First Nations Peoples as they are generally known today with a phonetic guide to a current pronunciation. *Indicates to those phonetic pronunciations may still exist but a huge gap between what they say and what they hear is a useful question saying. The best way to learn these names is to learn closely when in the presence of someone more familiar, and perhaps even ask for a quick lesson. Also included here are names formerly given these groups, or the language families to which they belong.

People	Pronunciation	Now Born Called	Language Family
Atsuga	Atsuga	Atsuga	Atsuga
Chinook	Chinook	Chinook	Chinook
Gitksan	Gitksan	Gitksan	Gitksan
Haida	Haida	Haida	Haida
Kaska	Kaska	Kaska	Kaska
Nuxalk	Nuxalk	Nuxalk	Nuxalk
Shuswap	Shuswap	Shuswap	Shuswap
Tahltan	Tahltan	Tahltan	Tahltan
Tlingit	Tlingit	Tlingit	Tlingit
Tutchon	Tutchon	Tutchon	Tutchon
Wet'suwet'en	Wet'suwet'en	Wet'suwet'en	Wet'suwet'en
Xmucw	Xmucw	Xmucw	Xmucw
Yakima	Yakima	Yakima	Yakima
Zuni	Zuni	Zuni	Zuni

** Adapted from Chief Gault's "A History of the Province of British Columbia" with the permission of the publisher (Victoria: 1881).*

** Although Chief Gault is not the author of the "A History of the Province of British Columbia" it is a useful reference for the names of the First Nations Peoples. (Gault, 1881, p. 100).*

** Adapted from Chief Gault's "A History of the Province of British Columbia" with the permission of the publisher (Victoria: 1881).*

BC Canton Governments

'A Strategic Planning'

SSP34 RAIC Vancouver • AIBC GM 2011

Plan B? Some sustainability, not much strategy.

- Plan B deals with real and substantive change to public policy, through consciousness raising, making necessary hard decisions.
- It deals with scalar change as part of a successful soft landing.
- Unfortunately we are too late, this might have worked if we had heeded the warnings of the 1970s.
- Some forward thinkers have taken steps outside the cultural norm to achieve partial success for future survival.
- Architects have a prime role in helping those who can use this track.



Plan C: Chaos Avoidance.

Thwarting both Mad Max and the Police State.

- For those that feel plan A or B will fail. Planning for social groups, families, community in new forms in post oil society by group formation now; Strategic Sustainable preparation.
- Democracy and Accountability in Governance (DAG), aims at democracy as a planned defense of the local government against abuse from hierarchy, police states or vandals.
- Success in this plan requires rapid and radical reform of the Pattern of Community and lifestyles: Architecture 501.
- Lateral thinking, learning from the Old World, re-plotting history to rediscover lost arts and crafts.



Scale of Solutions



Big footprint options not possible
Dispersed villages- need autonomy but cooperation
Housing clustering: energy & community fixes
Cooperative local economy vital
Seasonal survival: a new reality
Geothermal/earth sheltered towns
New wood & coal energy base
Extending growing conditions
Over-wintering - in crops & greenhouses
New animal husbandry vital
Self reliance: good insurance.



????????

Old & New: alternate histories give more future options.

Re-localization

Circle the
wagons
but let
people in?

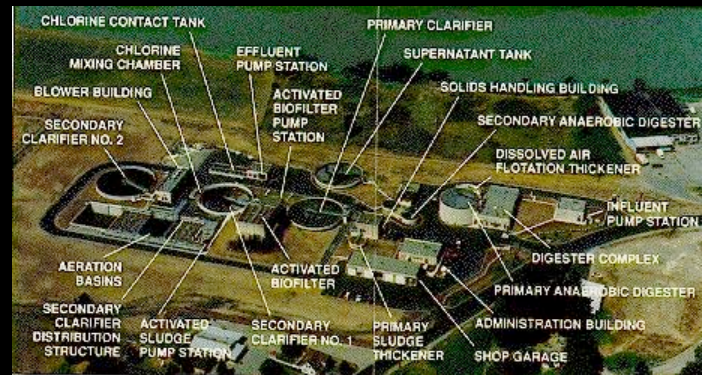


Post Oil Losses

As we scale down we cannot afford many things you now take for granted....



End of cheap energy=
loss of economy
loss of jobs
loss of tax base
loss of services
do it yourself



Loss of engineering services
Loss of civil structure
Learn to do it yourself



We better learn quickly how to do many things for ourselves but most of all to learn to help each other too...



New Roles for Architects: Revivatecture

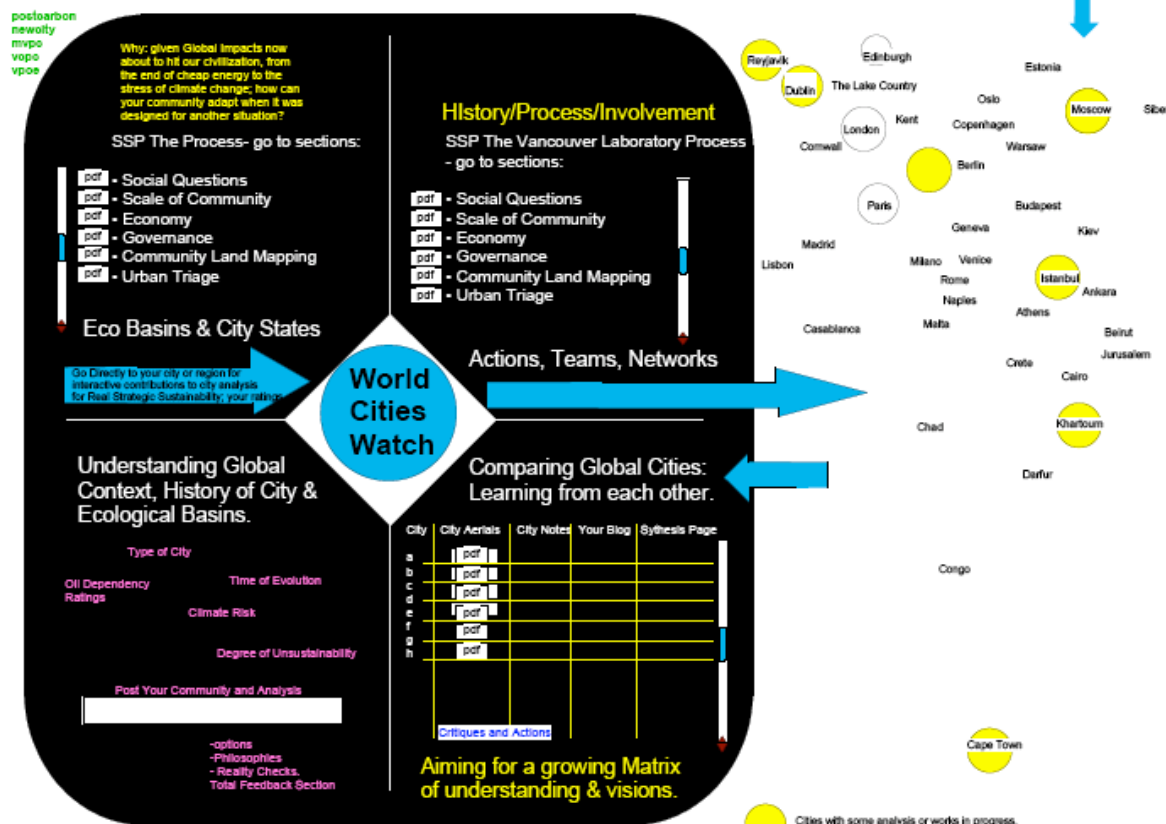
- Generals dealing with general disaster: more necessary as the risk is high for senior governments to collapse or become dysfunctional.
- Not BAU but new visions, coordination and directing execution of community restructuring with a condition of resource shortages.
- Aiding in establishing local governance- this is a design build job.
- Working in the field, our value added job is not just a cerebral exercise in the new future. Guerrilla planning means no room for Prima Donnas.
- Training for these new roles would help with success, for all.



relocalizenow.net

Links Contact Us Workbooks to download Ordering SSP The Manual Blogs in General CICKCICKCICKCICK

Enter your city or region or create a new map and data base for your city or region if it is not yet in the matrix.



GO TO

STRATEGIC SUSTAINABLE PLANNING: LINKS TO RELATED WEB SITES FOR INFORMATION, CONTACTS, INTERRELATED WORKS.

☐ postcarbon ☐ newcity ☐ mvpc ☐ vcpc ☐ vpoe

Cities with some analysis or works in progress. See Assessment Teams and backgrounds.

How to create a new City or Eco Region Map Base and Analysis to plug back into the Global Cities Watch. Link: [Link](#)

Global Cities Watch Proposal



Revivatect: your last mission:

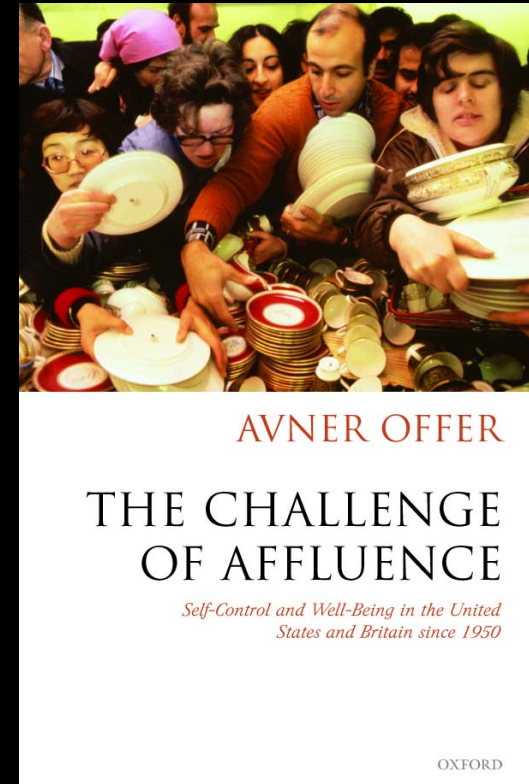
Choice over time

Myopia gives rise to bad choices:

- Are conditions for rational choice satisfied? Not clear:
 - Coffee or tea? *Immediate choice is trivial*
 - Get married or walk away? *Choice over time is intractable*. Not sure even in retrospect.
 - *Significant choice is over time*, between *now* and *future*.
 - How well can we do it?

‘There is no quality in human nature, which causes more fatal errors in our conduct, than that which leads us to prefer whatever is present to the distant and remote.’

[David Hume, *Treatise on Human Nature*]



8/ REMAKING SOCIETY , sidestepping Dictatorship.

The gathering was marked by over a dozen plenary sessions of five hundred to a thousand people and by an astonishing number of workshops on issues as exotic as ecological ethics and as timely as feminism, racism, imperialism, and economic democracy; indeed, almost every practical social problem that could be of interest to the rapidly growing Green movement in America. There were heated disputes over electoral versus non-electoral politics, independent versus coalition politics, revolutionary versus reformist politics, and, in short, all the debates that have echoed over the years in major radical gatherings.

But something fairly new surfaced in these debates. A number of tendencies, indeed, ways of thinking, appeared that may seem uniquely American, but which I think have already emerged or will emerge in Green movements, and perhaps radical movements generally, outside the United States.

I can best describe at least one of these tendencies by giving an account of the incident that troubled me. It occurred in an after-dinner conversation when people relaxed in small groups on the broad lawn of our meeting place to discuss the events of the day. A young, tall, rather robust man from California began to talk in a vague way about the need to "obey" the "laws of nature," to "humbly subjugate ourselves" (if I recall his words correctly) "to nature's commands." Rhetorical as his words seemed at first utterance, I began to find his increasingly strident monologue very disturbing.

His use of words like "obey," "laws of nature," "subjugate," and "commands" reminded me of the very same language I have heard from anti-ecological people who believe that nature must "obey" our commands and its "laws" must be used to "subjugate" the natural world itself. Whether I was thinking of the young California Green who was bombarding me with his seemingly "ecological" verbiage, or of modern acolytes of the cold deities of science who believe that "man" must ruthlessly control nature in "his" own interest, it was clear to me that these two seemingly opposed views had a basic thing in common. They jointly shared the vocabulary of domination and subjugation. Just as my California Green believes that human beings should be dominated by nature, so the acolytes of scientism believe that nature should be dominated by "man."

Murray Bookchin, *Black Rose*, 1989

American (sic) Greens in Amherst, Mass., in 1987, and kick-started Bookchin's book, "Remaking Society".



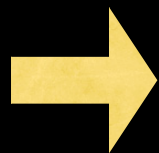
Graphically.....

What you take for granted.
Age of the Entitled....

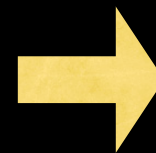


Oil Age

People in the the Petri Dish



OR



Post-Oil Age

Enlightened but sweaty...

¿TRANSITION

COLLAPSE?

people time lag



~~Fishbowl~~ Spaceship Earth Approach

Look for the
Goldilocks
Solutions.



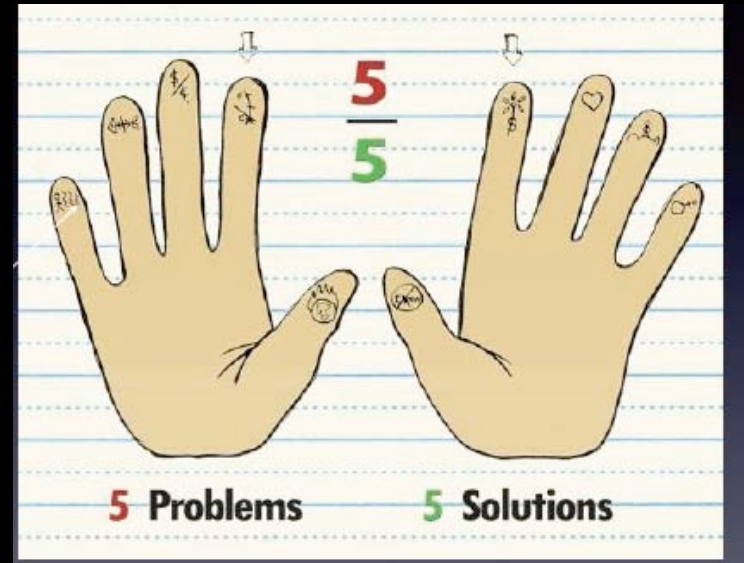
Our glass is
now not
half full....
can you help
to refill it?

You are part of the needed paradigm shift
or there is no shift to be had....





And now a help in the message from How to Boil a Frog team.



Reconfiguring the Pattern of Community:

How fast can you act?
Are you a leader?
Or do we wait for collapse?



Recruiting Now: Guerrilla Architects for Plan C.

Thank you for your patience.....





www.plancanada.com



City to Village:
How to Boil a Frog clip illustrates
Marbleization & Urban Triage

thanks to Jon Cooksey, Vandy Savage and C2V Team



Relocalization

Excerpt from
the comedic documentary
"How to Boil a Frog"



Global Impacts on City and Culture Strategic Sustainable Planning

www.plancanada.com

