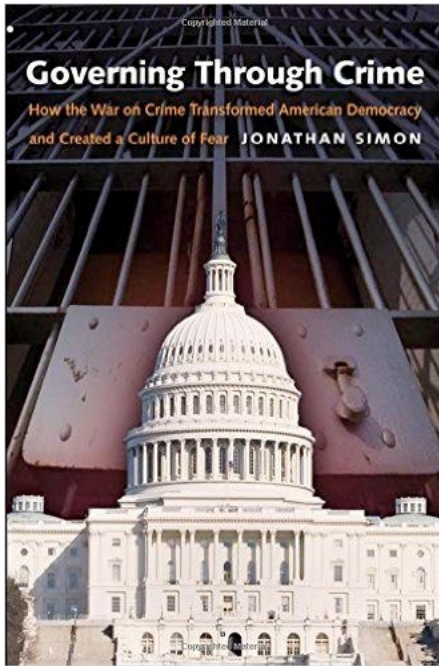


Alternative Futures of Justice and Architectural Design



Academy of Architecture for Justice Conference

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of HAWAII'**
MĀNOA

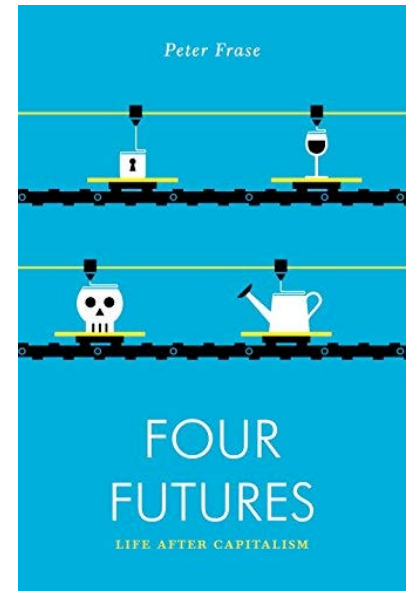


I will speak on two themes today.



One is about the futures, and futures studies.

I will assert that while it is impossible to predict **the** future,
it is possible and necessary to forecast and consider
the consequences of
four generic alternative images of the futures.



My second theme is that Structure Matters.

Since many of you are architects who create structures,
I will speak about that first,
and then briefly consider some consequences
in four alternative futures for law, justice, and architecture.





Buildings speak.





And sometimes people speak back to them.



But more typically, as Winston Churchill said,

**“We shape our buildings,
and afterwards our
buildings shape us.”**

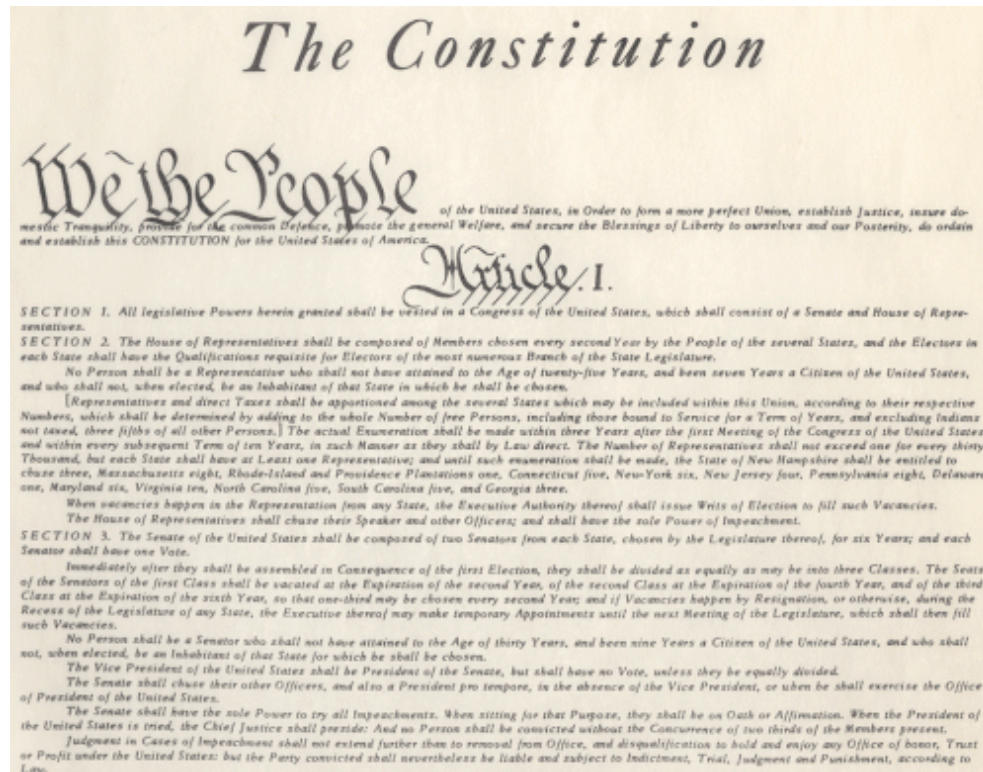
WINSTON CHURCHILL





He was referring to the way the design of the Houses of Parliament influences political debate and policy.

He might also have cited the example of the two Houses of Congress in the United States.



The reason the Senate has 100 Senators, is because there are 50 states in the Union and the US Constitution says that each state shall have two senators.

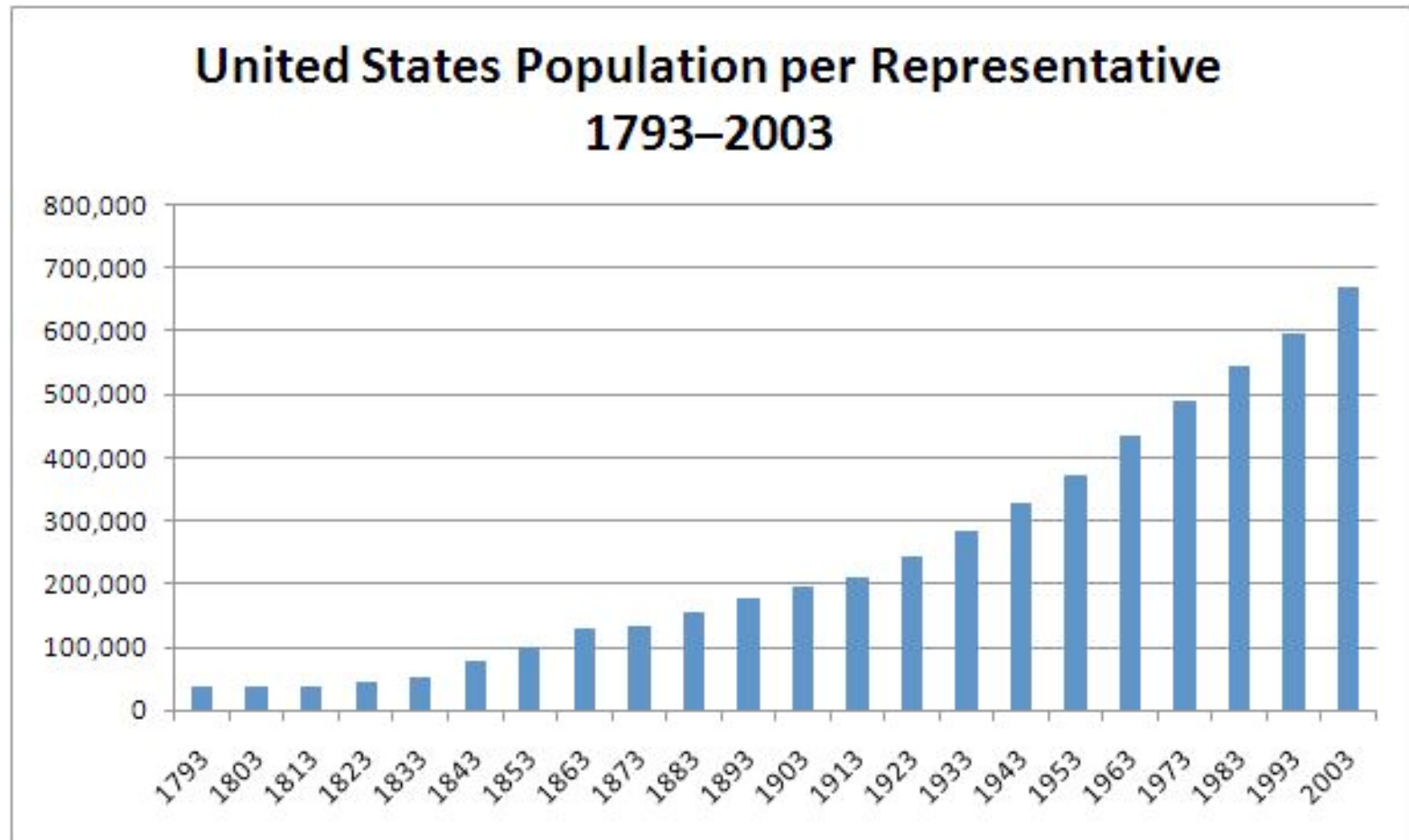
The reason the House of Representatives has
435 members

Article 1, Section 2

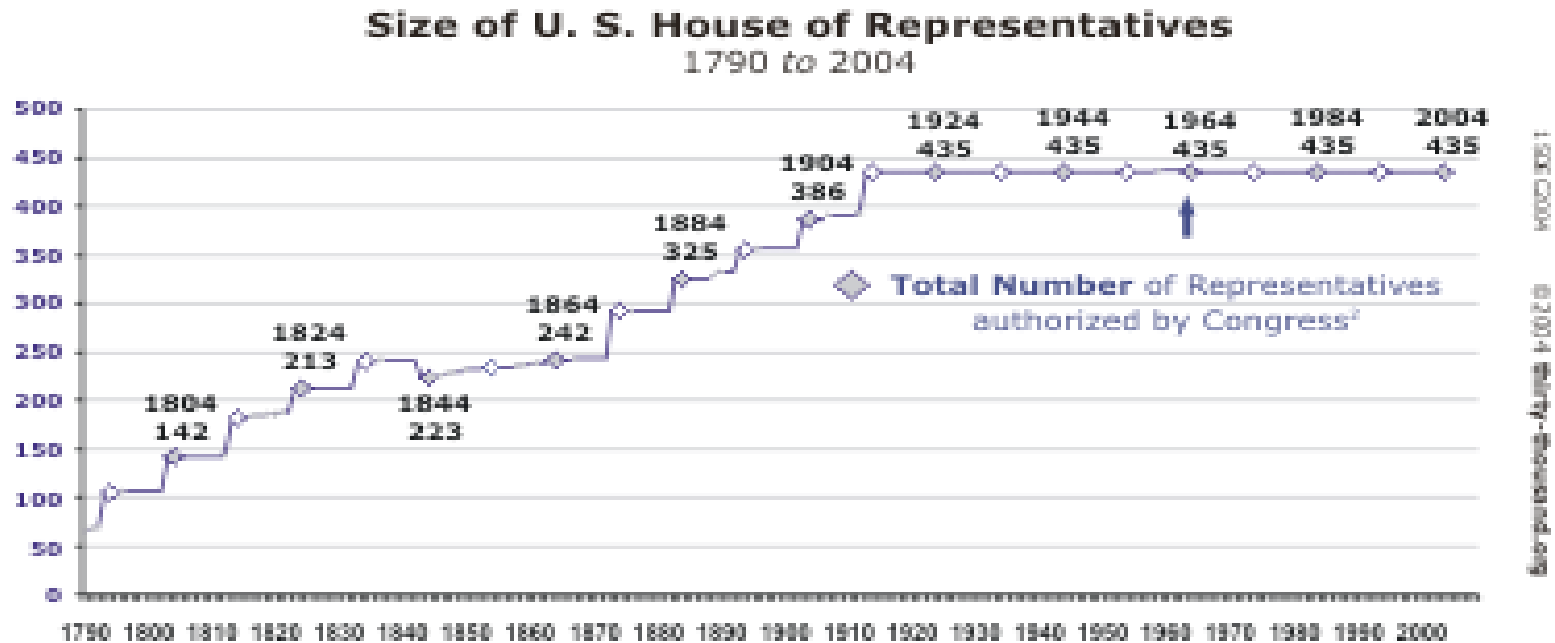
Representatives and direct taxes shall be apportioned among the several states which may be included within this union, according to their respective numbers, which shall be determined by adding to the whole number of free persons, including those bound to service for a term of years, and excluding Indians not taxed, three fifths of all other Persons. The actual

is because the US Constitution requires
that each of the states of the Union
have representatives apportioned
in accordance with its population.

For most of its history,
as the population of the US grew,
Congress added more representatives
after every census.



However, once the number of representatives hit 435,
there was no more space in the hall to add more desks,
and so there could be no more representatives!



That limit was reached 100 years ago,
following the US Census of 1910,
when the US population was slightly less than 100 million.

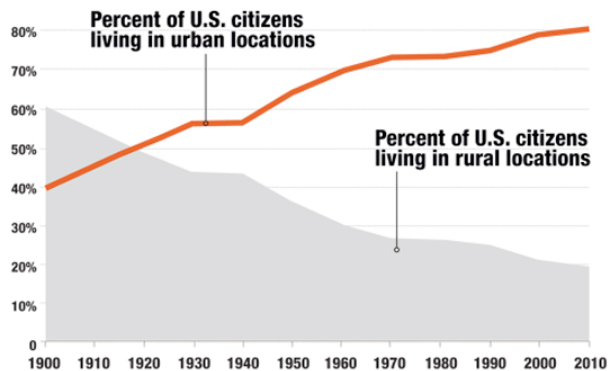
Now it is over 320 million and growing.

Reapportioning 435 members
among that growing population means that

small, rural, conservative areas
are significantly overrepresented
in both Houses,

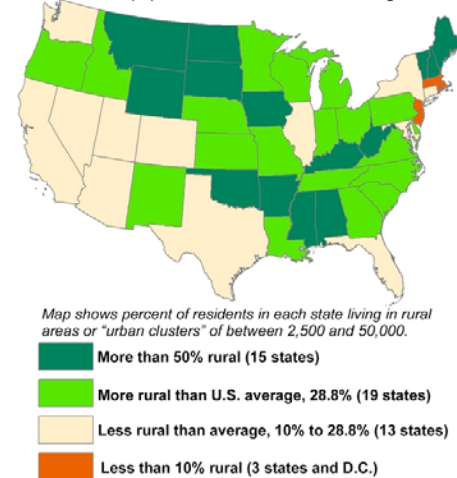
while large, urban, liberal areas
are consistently underrepresented.

Out of the Countryside, Into the City



The States of Rural America

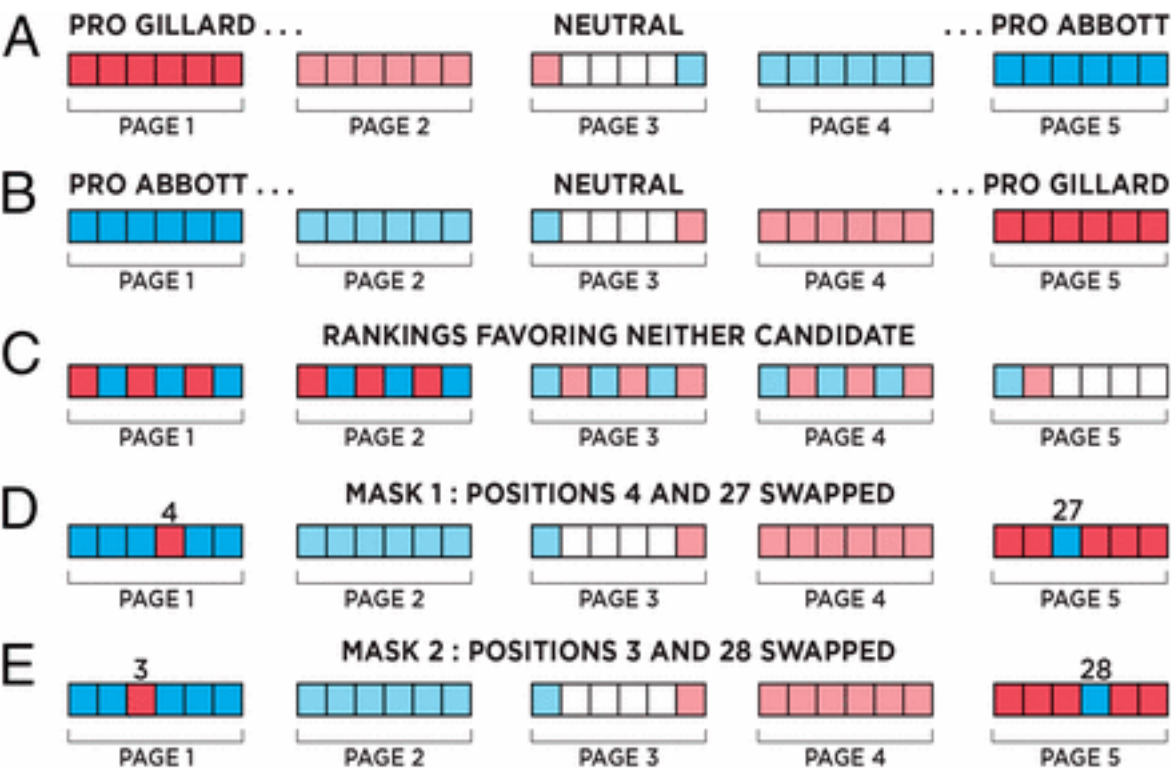
Seven out of ten states have a larger percentage of rural population than the national average





Extensive gerrymandering of electoral districts makes misrepresentation even worse.





And digital gerrymandering
by the search engine manipulation effect
might increase misrepresentation further.

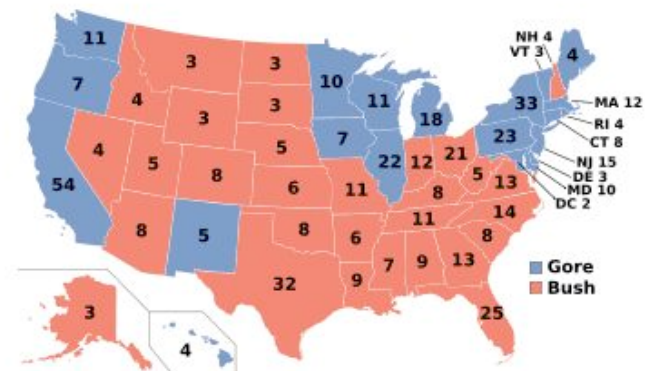
Does that matter?

United States presidential election, 2000

November 7, 2000



Nominee	George W. Bush	Al Gore
Party	Republican	Democratic
Home state	Texas	Tennessee
Running mate	Dick Cheney	Joe Lieberman
Electoral vote	271	266
States carried	30	20+DC
Popular vote	50,456,002	50,999,897
Percentage	47.9%	48.4%



Presidential election results map. Red denotes states won by Bush/Cheney(30), Blue denotes those won by Gore/Lieberman(20+DC).

Incumbent President

Bill Clinton

Democratic

President-Elect

George W. Bush

Republican

Just ask Al Gore

Will that matter?

We'll know in four days.



Vote for one option.

- ☐ Joe Smith
- ☒ John Citizen
- ☐ Jane Doe
- ☐ Fred Rubble
- ☐ Mary Hill

Similarly, the reason we have a two-party system and only a two-party system in the US, though third or fourth parties may rise and fall on occasion, is because the US constitution mandates the “single-member district system” whereby people in an electoral district must choose only one person to represent them.

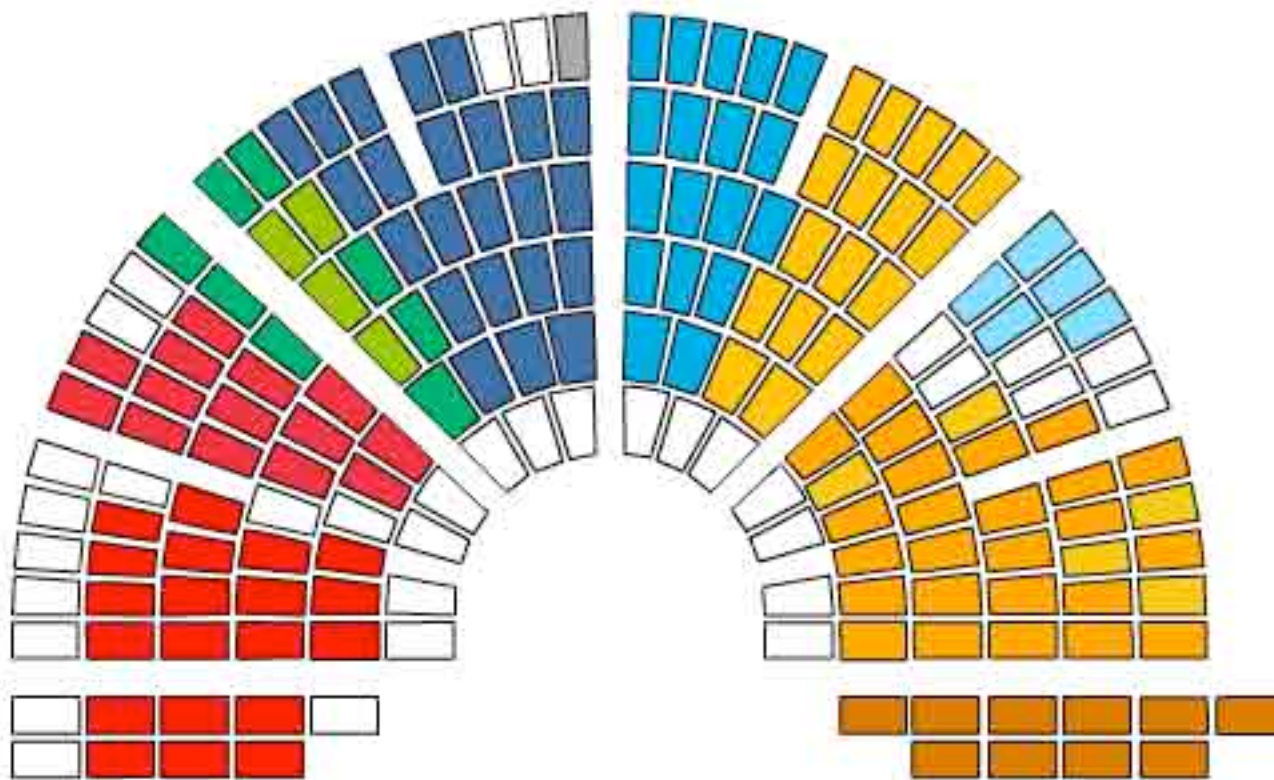
But how can one person
represent the diversity of Americans?

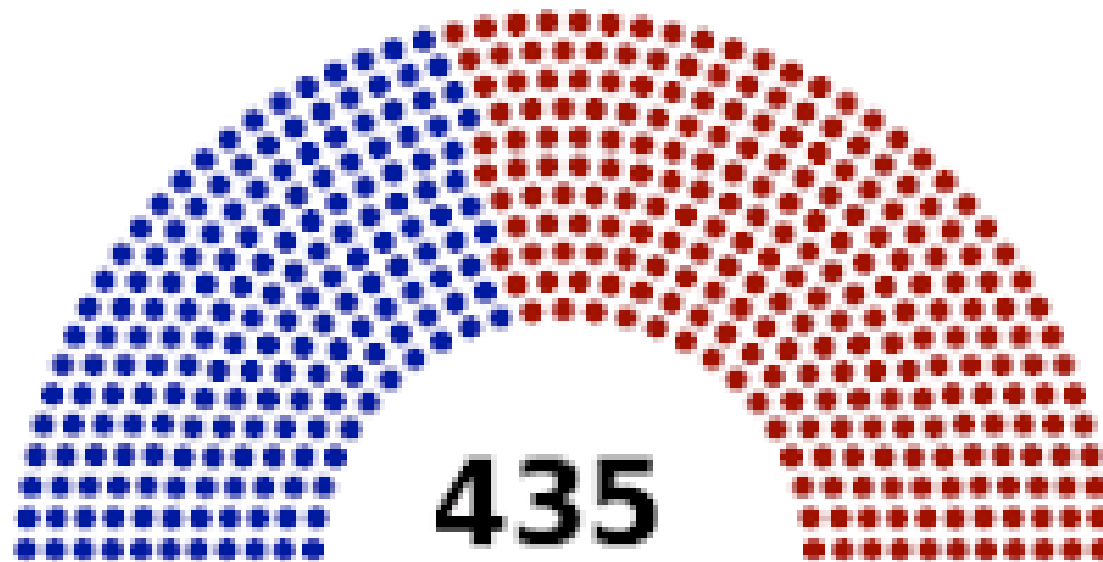


They can't
and they don't.

This situation contrasts with most countries of the world that utilize multi-member districts, so that there can be 5, 10, 100 representatives from a single electoral district,

thus spawning many political parties, each representing specific interests in the district.

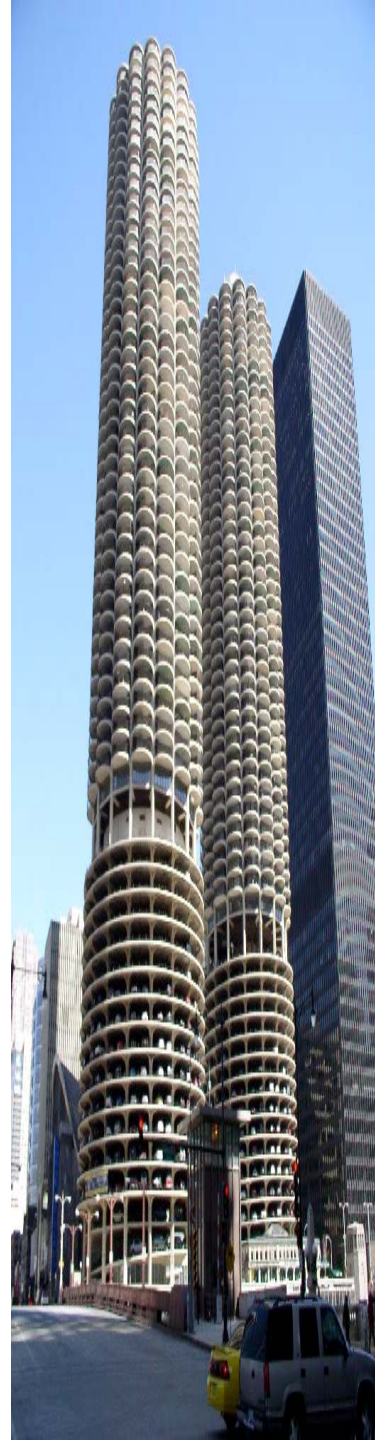




So, structure matters.



Architects have inordinately more
influence over the future
than most other people do.



You each have far more influence over the future than I do,
even though I have been a professional futurist
engaged in policy-oriented futures studies
for almost half a century.





Your buildings are built to last,
and to last,



and to last.



People who use those buildings
come and go,

while new technologies
incessantly emerge,
trying to replace
the old technologies
entombed in old buildings.



As one consequence,
many of us are forced to live out our lives
in structures designed for times quite unlike the present—

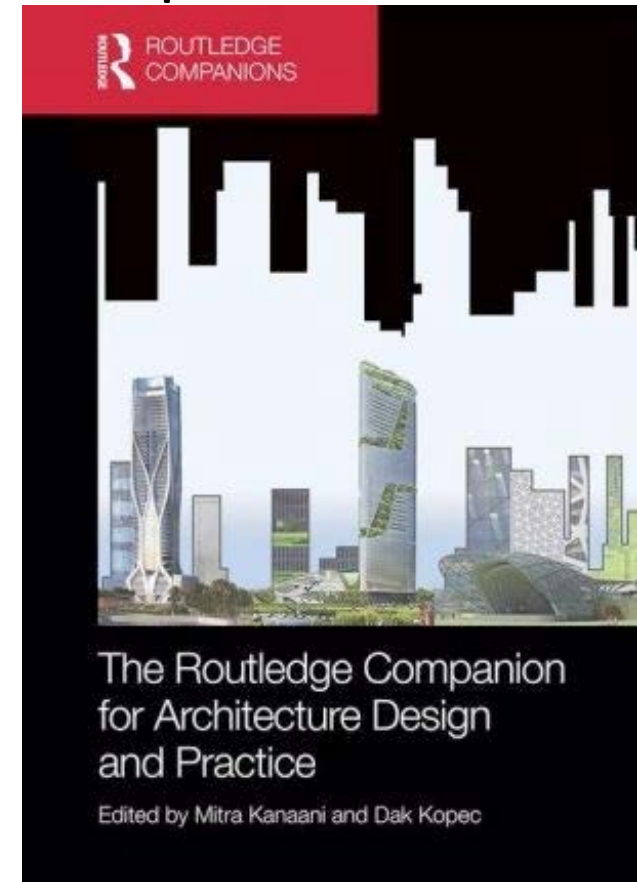


structures designed for the most part
without any serious thought having been given to
what future worlds might be like,
and whether the structures of the past
might still be functional for future generations.

And you don't seem to care.



I recently contributed a chapter,
titled “Alternative Futures in Architecture,”
to *The Routledge Companion
for Architecture Design and Practice:
Established and Emerging Trends*,
edited by Mitra Kanaani and Dak Kopec.



I surveyed scores of books and articles written recently
by architects about the field of architecture;

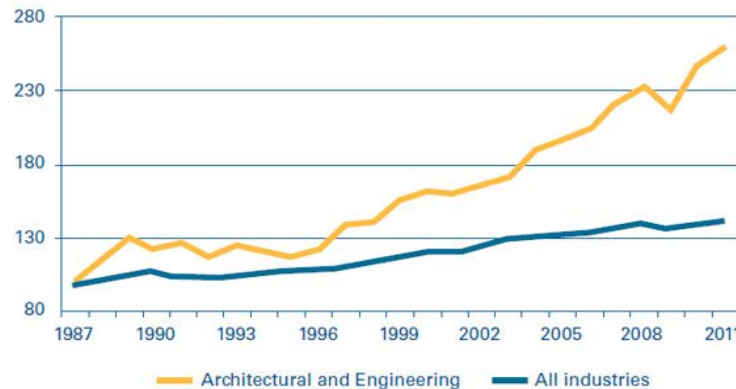
I examined 249 DArch theses written by students
of the School of Architecture of the University of Hawaii
between 1999 and 2013;

and I analyzed the content of the thirty-four chapters
written by the forty-five architects
who contributed to the *Companion* itself.

Very few architects showed
the slightest interest in the future,

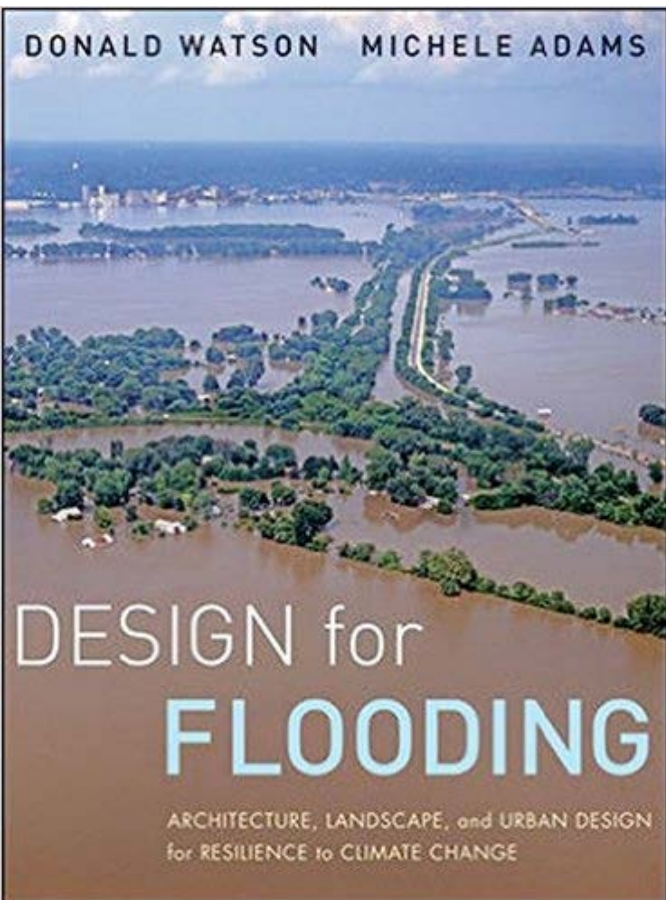
though almost all of them wrote as though the trends,
processes, and technologies of the past 200 years
of continued economic growth
were going to march unchanged into the future,

carrying current architectural practices
triumphantly forward with them.



Only a handful of architects expressed any concern about global warming, climate change, global population growth and local population decline, energy, water, or food shortages, political instability,

on the one hand,





or of the high tech glories that
ubiquitous electronic virtuality, robotics,
artificial intelligence, biotechnologies,
new interactive materials, and
space settlements,
might bring to the world and their profession,

on the other hand.





But why should architects care about the futures?

No one from the future has ever offered you money for erecting something fit for them.

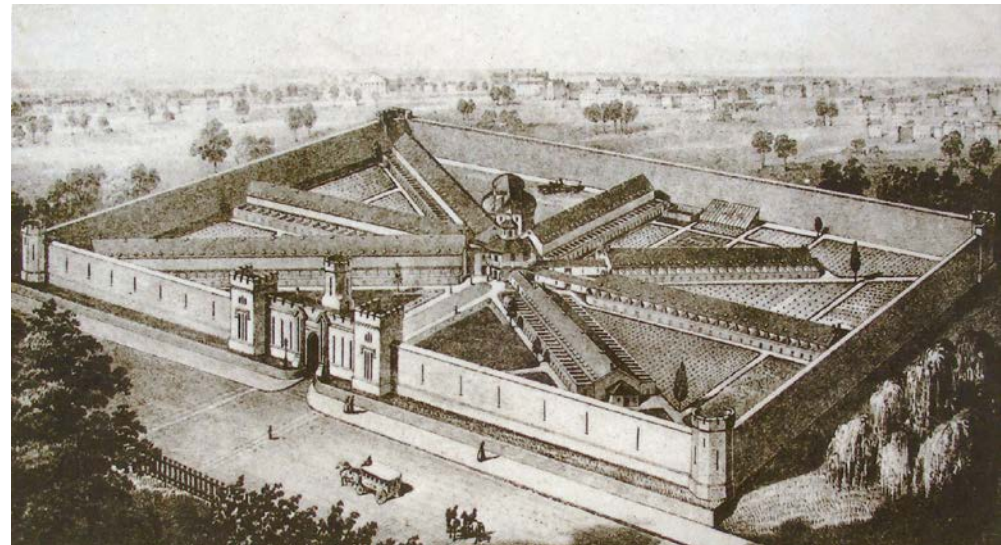
You have always constructed buildings that serve the interest of certain people in the present.



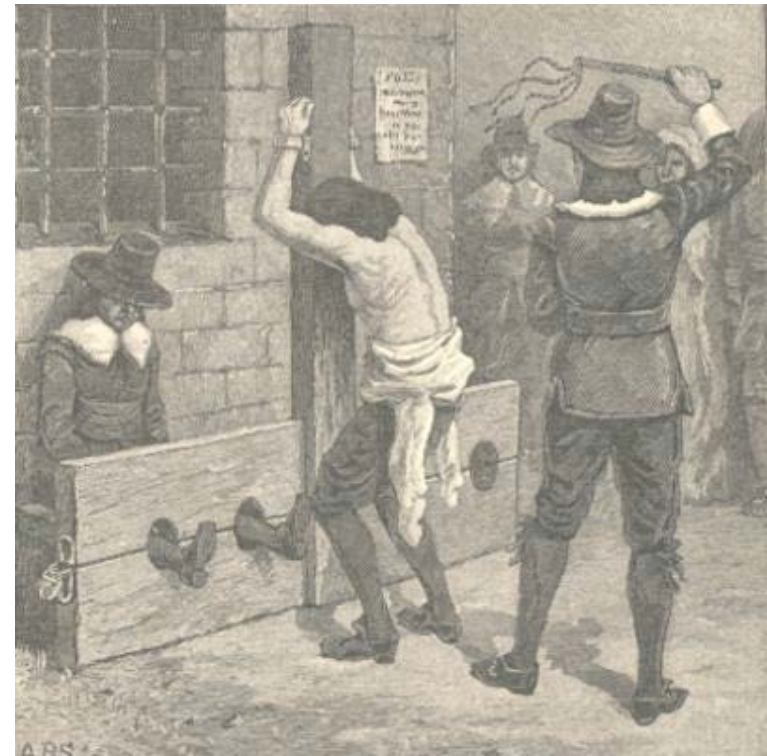


Moreover, some of you are very special architects.

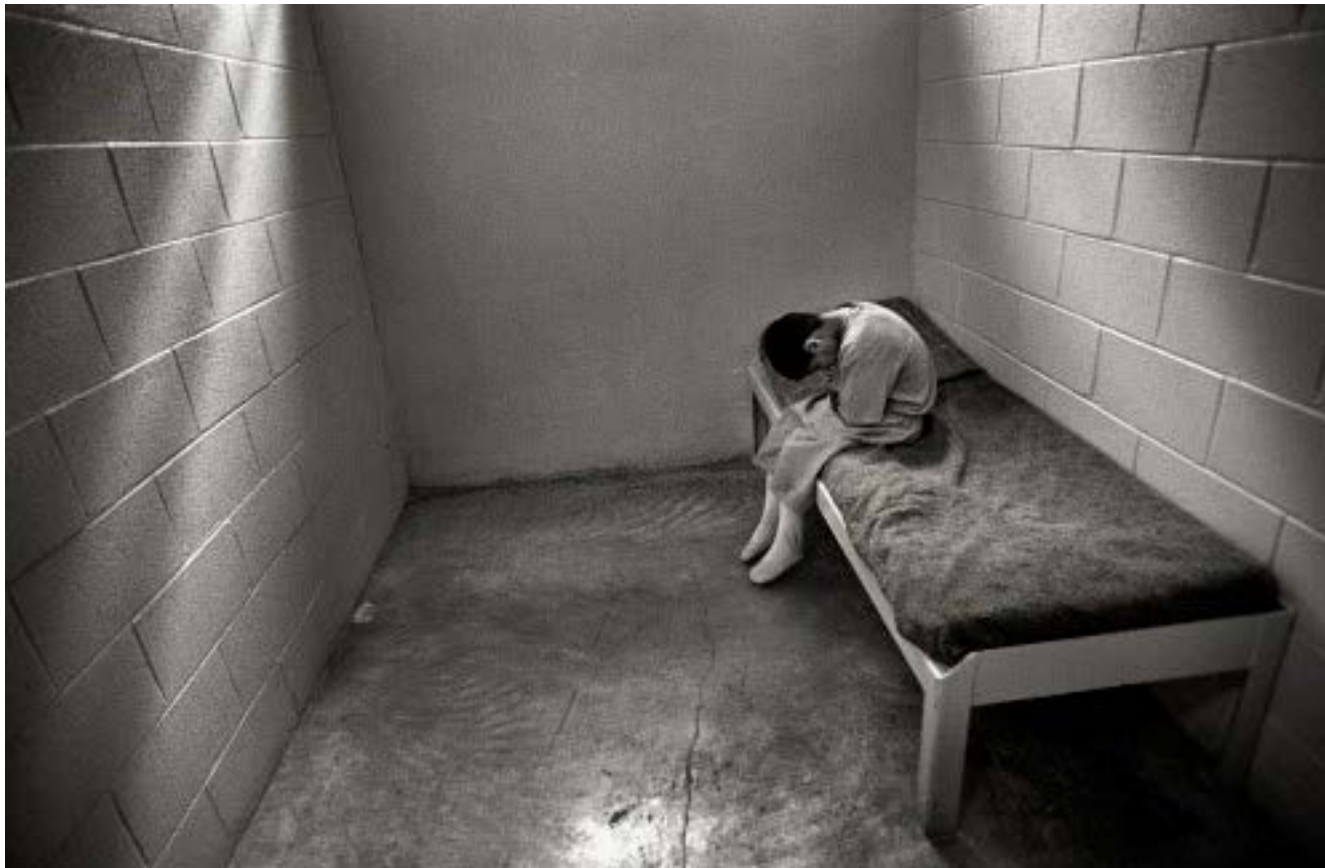
You build court houses, prisons, or reformatories, or torture chambers, or places where penitents learn to repent their crimes.

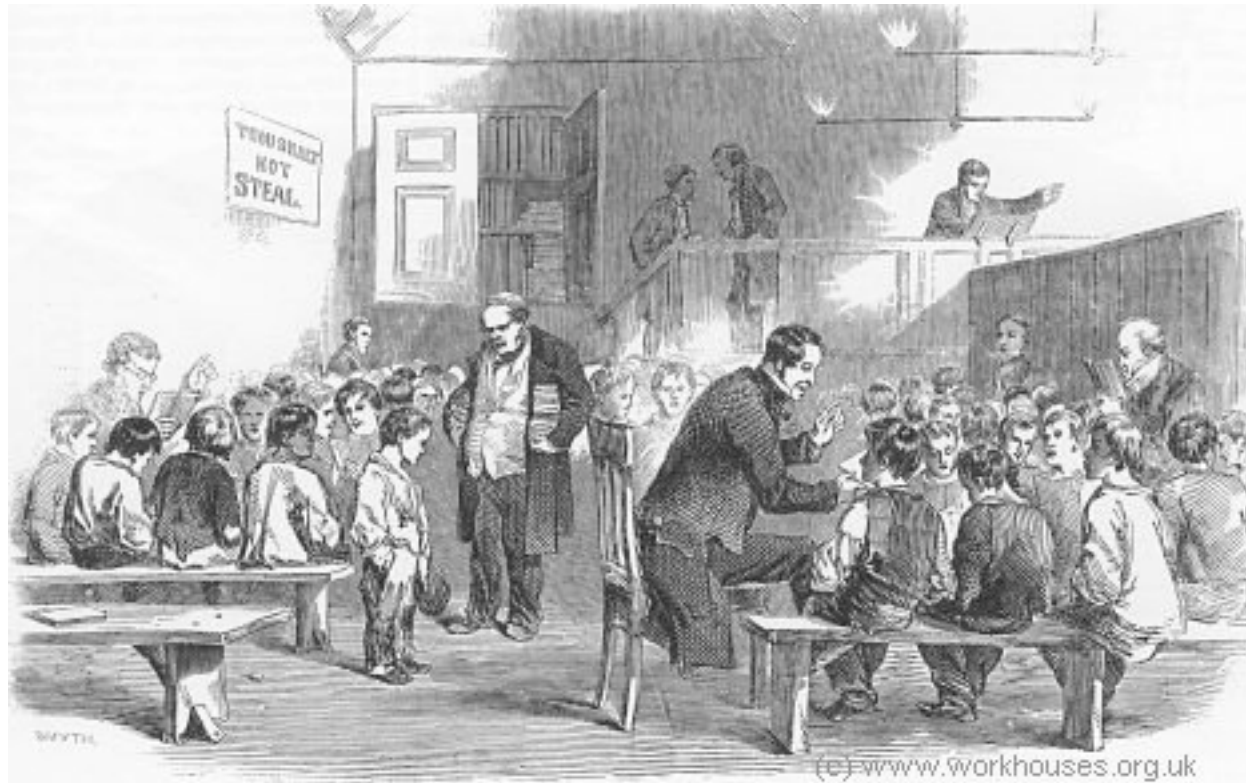


Styles in reform and punishment have cycled back and forth
in the United States over the years since its founding
from harsh punishment based on
ridicule and physical assault;



to opportunities for individual, private reflection;

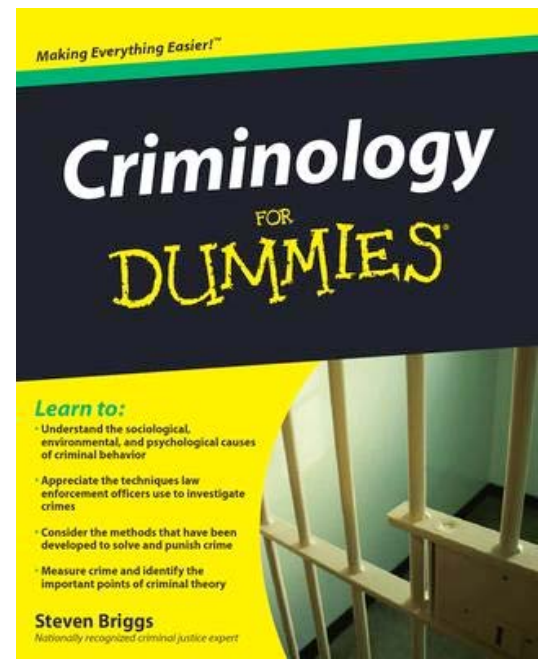




to programs for reform and improvement;



to isolation,
punishment,
cruelty,
and neglect,
called
“just deserts”.



Learn to:

- Understand the sociological, environmental, and psychological causes of criminal behavior
- Appreciate the techniques law enforcement officers use to investigate crimes
- Consider the methods that have been developed to solve and punish crime
- Measure crime and identify the important points of criminal theory

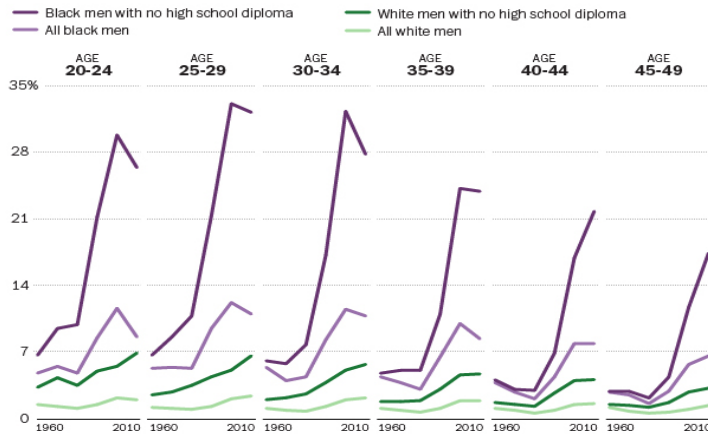
Steven Briggs

Nationally recognized criminal justice expert

As a consequence America leads the industrial world in the number and percentage of our population in prison, and especially of the number of young men of color in long-time confinement.

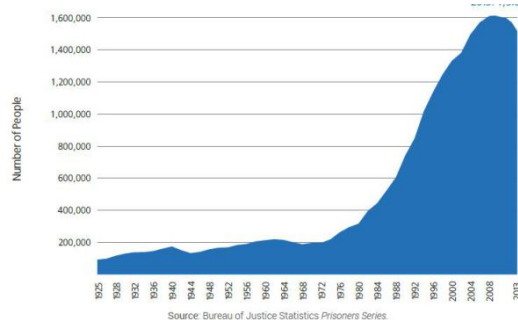
Incarceration rates skyrocket in recent decades

% institutionalized, by race, age, education and year



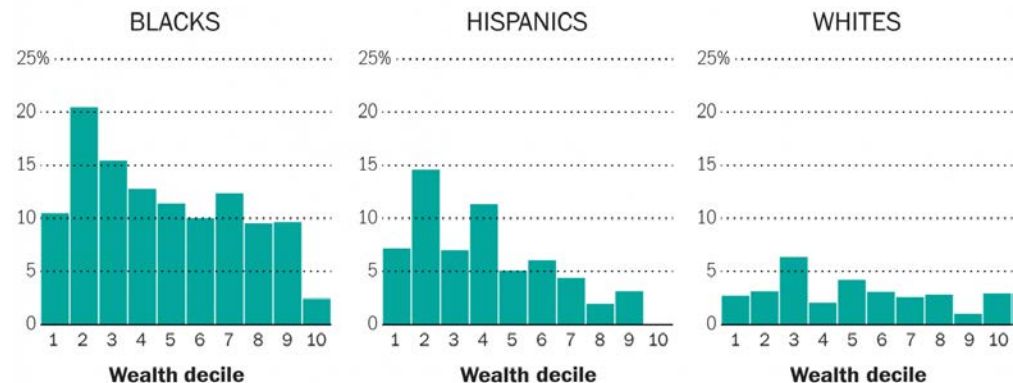
WASHINGTONPOST.COM/WONKBLOG

Source: Derek Neal and Armin Rick, U. of Chicago



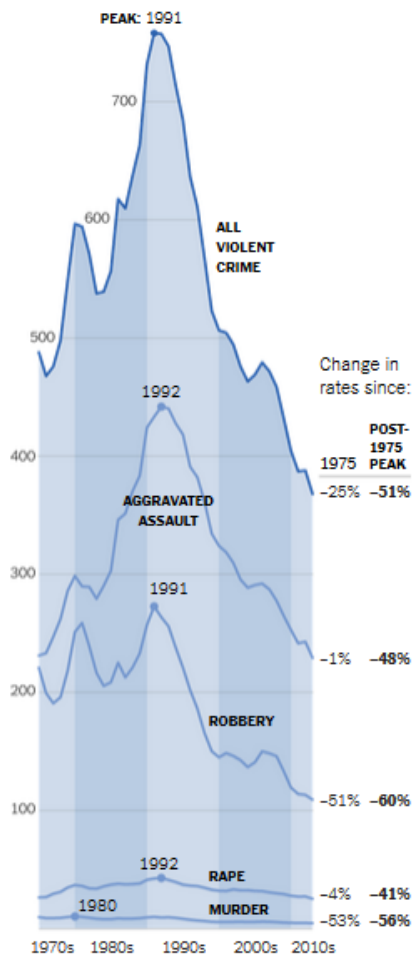
Rich black kids are more likely to go to prison than poor white kids

Share of people born between 1957 and 1965 who eventually went to prison or jail, by how much wealth they had as of 1985, when they were between 20 and 28 years old



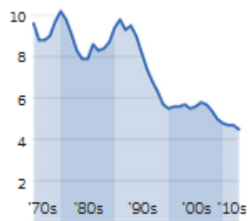
A Safer Country

Annual rate of violent crimes per 100,000 people, 1975–2013.



THE MURDER RATE*, MAGNIFIED

At right, a detail of the murder trend since 1975. The rate plunged from a peak of 10.2 homicides per 100,000 people in 1980 to 4.5 in 2013.



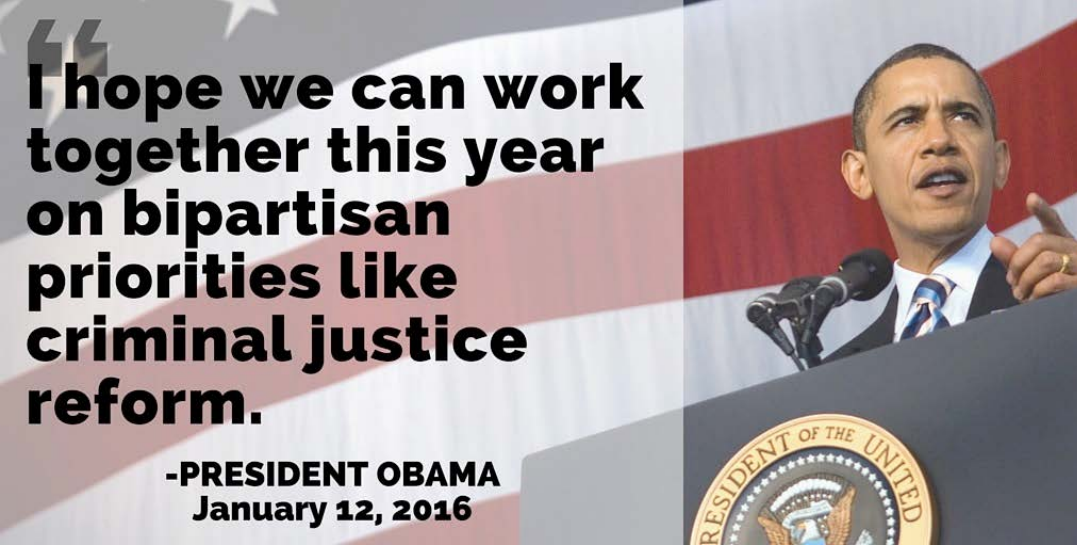
*Includes non-negligent manslaughter.

Source: Department of Justice

For a while recently,
it looked like we were on the wave
to real reform,

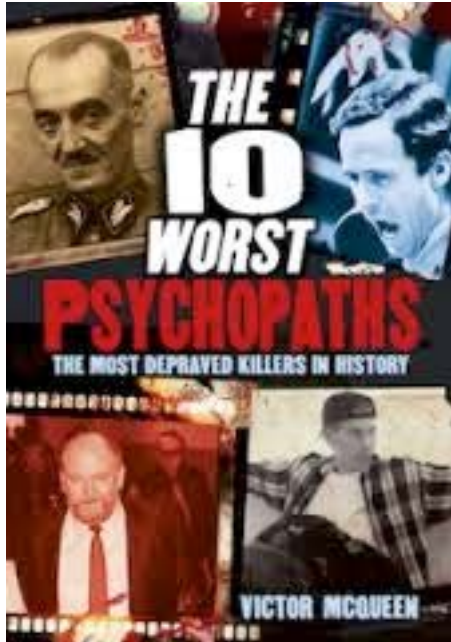
reducing the numbers
of Americans incarcerated
for long periods of time
for relatively minor infractions—

and of certain ethnic and economic groups
being far more numerous in prisons
than either chance or fairness would allow.



A bipartisan movement towards transformation of our criminal justice system emerged.

It was possible to imagine and plan for structures that reserved incarceration for the few truly violent people,



while nurturing the education and reintegration
into society
of the huge numbers of youths



who engage in the kind of antisocial behavior
that biology imposes on all of us for a while.

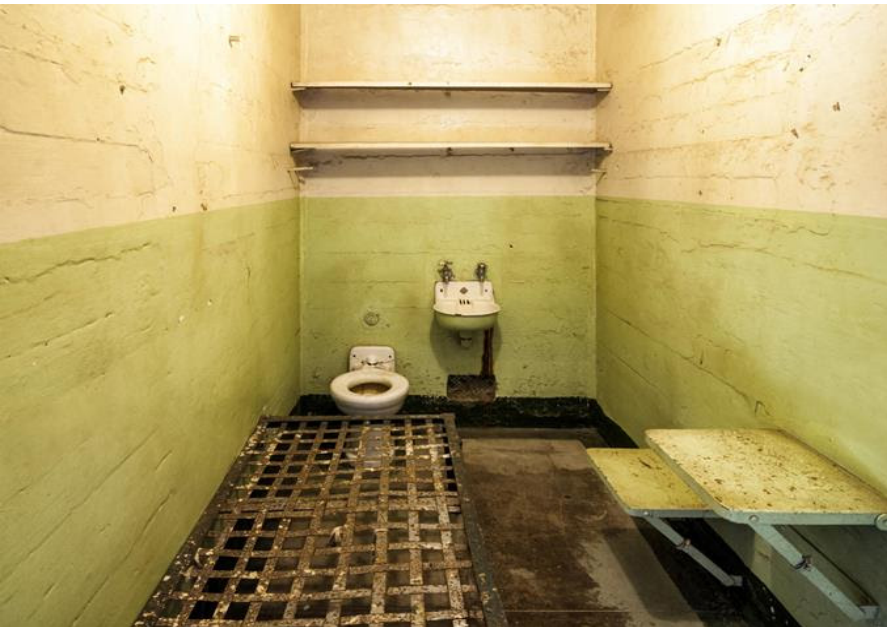




But events over the last few months,
both rhetorical and real,
seem to have rekindled enthusiasm for
incarceration, exclusion, humiliation, and punishment
once again.

The shape and style of our buildings
reflects the moods and temperament of the people
who pay for them to be built.

Those moods change over time,
sometimes without any apparent reason
other than the desire to build something new.



Structure matters
not only in terms of how courts and prisons
reflect and reinforce
our notions about how to deal with crime and criminals,



The Iberians are believed to have been originally an African race, who thousands of years ago spread themselves through Spain over Western Europe. Their remains are found in the barrows, or burying places, in sundry parts of these countries. The skulls are of low, prognathous type. They came to Ireland, and mixed with the natives of the South and West, who themselves are supposed to have been of low type and descendants of savages of the Stone Age, who, in consequence of isolation from the rest of the world, had never been out competed in the healthy struggle of life, and thus made way, according to the laws of nature, for superior races.

but also who criminals are
and the crimes they commit.



When I was young,
consumer goods were scarce
and many people poor.

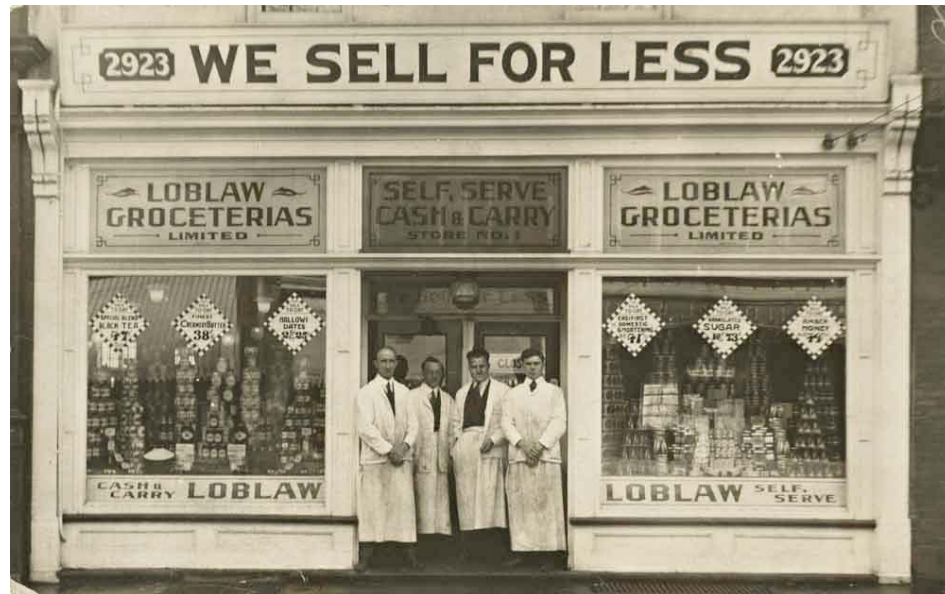
Commercial stores carefully protected their scarce offerings
behind barriers of bars and counters,
displaying them so they could be seen,
but not touched.



Acquiring those scarce goods was difficult.

You needed to have cash in hand
that covered the asking price.

That was called “cash and carry”—
if you have the cash, you can carry the purchase away.



If you didn't have enough money to pay for the product entirely, then there was an option called "lay-away".



You put a bit of money down, and the scarce product was removed from the display case and "laid away" in a back room.





You came in each week
and paid a bit more money
until you had paid the entire cost.

Then you could proudly carry the product away.

Shops experienced relatively little crime at that time—
almost no theft, little shoplifting.

Of course you might have to rob someone
to come up with the money you needed,
but in-store crimes were rare—
because of their design.

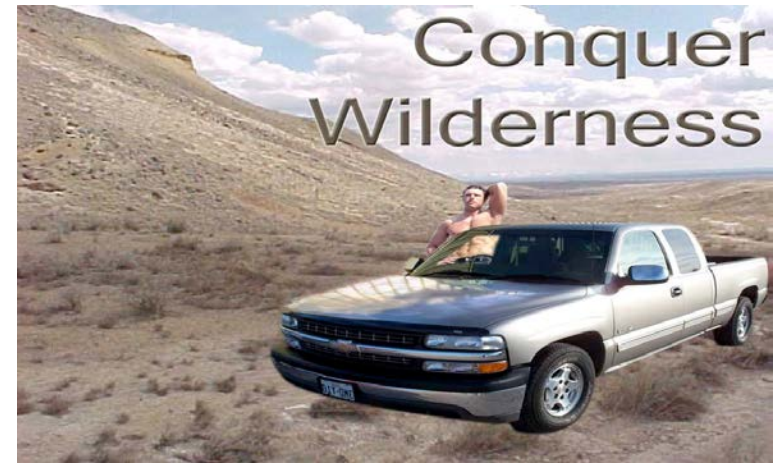


The situation is entirely different now. Consumer goods are abundant and cheap. Indeed, they are far too abundant. The challenge now is how to get rid of all that abundant crap.



One way is by modern advertising
which seduces people into craving products
that they don't really want or need,

but which the manufacturers and retailers need to get rid of.





But that is still a problem
if you don't have the cash in hand.

And so commerce almost came to a halt



until the revolving credit card was invented

which somehow had ever-expanding credit limits.

Once you reached your limit,
they didn't take your card away;

they raised your credit limit
and gave you more cards
so you could spread your debts far and wide—





Anything to move the merchandise out
and keep the profits flowing in.



But maybe you live in the wrong zip code
or hang out with the wrong people
even to have a credit card.

In that case,
you must resort to theft,
to shoplifting.



And so stores were redesigned so that the super-abundant goods are piled openly on tables, with the products that are most abundant, cheap, and least popular placed near the doors— which are often open and spacious.

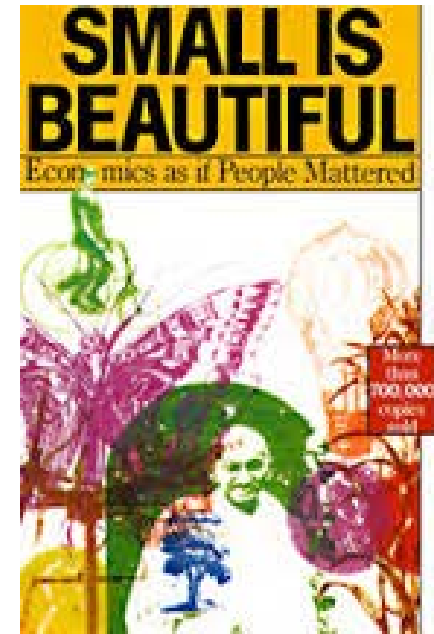


You are expected to steal those goods,
so that the manufactures can keep producing new goods,
so that the goods in the warehouses
can be moved to the stores,
so that the goods in the stores can be taken away
one way or another,
so that other goods waiting in the warehouses
can move to the stores,
so that the goods spewing out of the factories
can move to the warehouses....



As someone said long ago,
shoplifting
is the poor person's credit card.

Structure matters,
and commercial stores were
redesigned
so we would move from being
conserver societies
based on scarcity, re-use, and thrift



Theft is OK ,
because that means we can keep the economy growing
by hiring more



security guards,
police,
lawyers,
judges,
prison guards,
and parole officers,



with ever fancier surveillance and enforcement equipment,





all of which requires
more court houses and larger prisons,
thus keeping you happily employed as well.





Economists don't care HOW the economy grows.
It is just that it must keep growing.

Theft
contributes more to a growing economy than
Thrift.

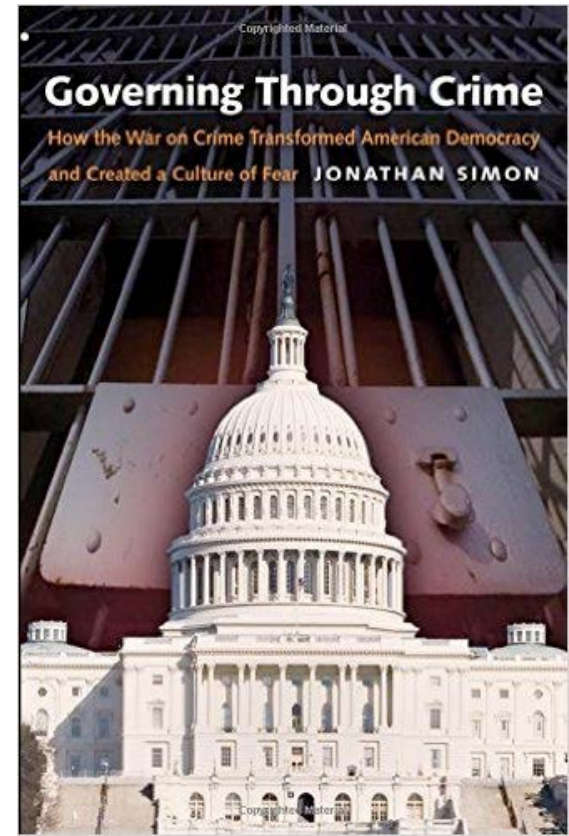
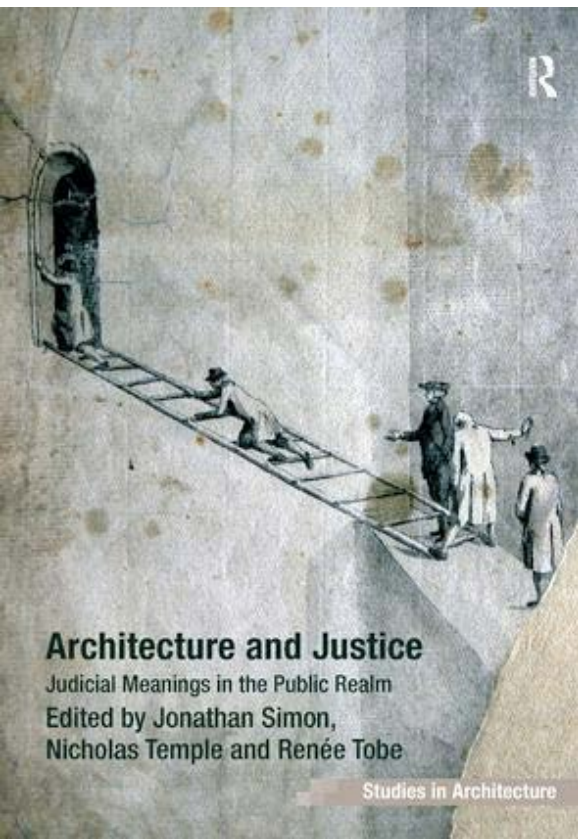


This is only one example of many showing how we have created a society that actively produces crime, criminals, and prisons,

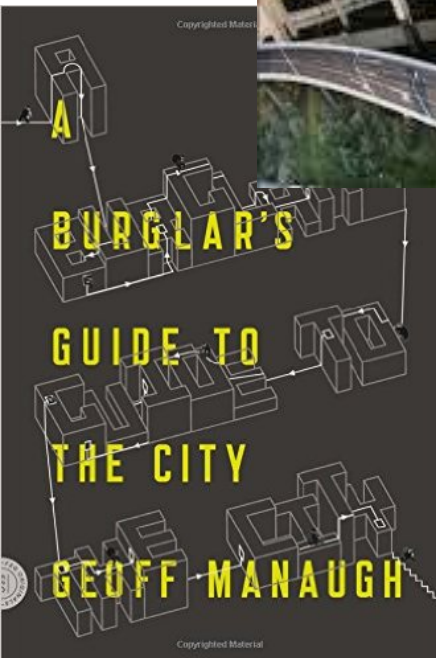
and that we can—and eventually must—create a society that is not so massively criminogenic.



Reducing reasons for crime and opportunities for crime
by structural design
should become a high priority for
Architects for Justice,
if it is not already.



It is well-known—or at least widely-argued—that the housing, commercial, and transportation structures of our big cities cause criminal behavior.





Small towns and villages
once were comparatively crime-free in part
because of the way houses, shops and streets were laid out
so as to provide maximum informal surveillance
and minimum opportunities for crime.

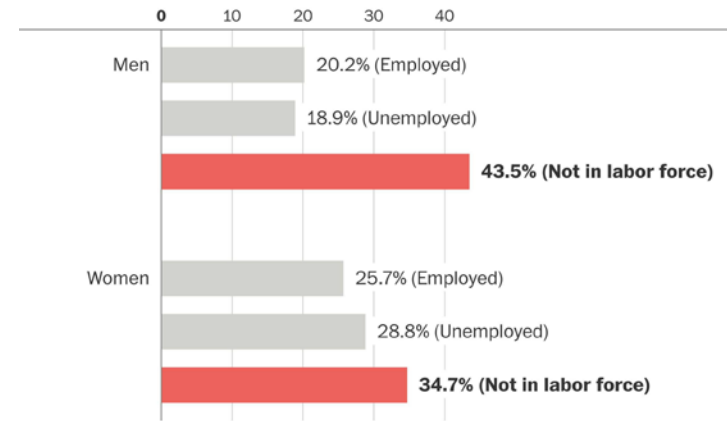


But that too has changed
since the economic structures of global neoliberalism,
on the one hand,
and the rapid rise of robotics, artificial intelligence,
and mobile autonomous entities,
on the other,
have destroyed the economic base
of most small communities,





Percent of people who took painkillers the day before, by employment status



Source: American Time Use Survey via Alan Krueger
WAPO.ST/WONKBLOG

while the rise of ever more potent drugs
have given unemployed people
profound incentives and opportunities for behavior
that is treated as a crime,
and not as a structural design challenge.



“Crime” is a socially-determined category.

And what is crime in one time and place
may not be crime in another.

Crime could be vastly reduced
by decriminalizing many things that are declared crime now—
such as recreational drug use,
or suicide, especially elderly suicide.





At the same time, new crimes have arisen.

Not only should the CEOs of
Bank of America, Wells Fargo, Deutsche Bank, etc.
not go free with disgusting golden parachutes,





but also most people in prison now should be released,
and their places taken by those financial wizards
who destroyed the lives of billions
while grotesquely enriching themselves.



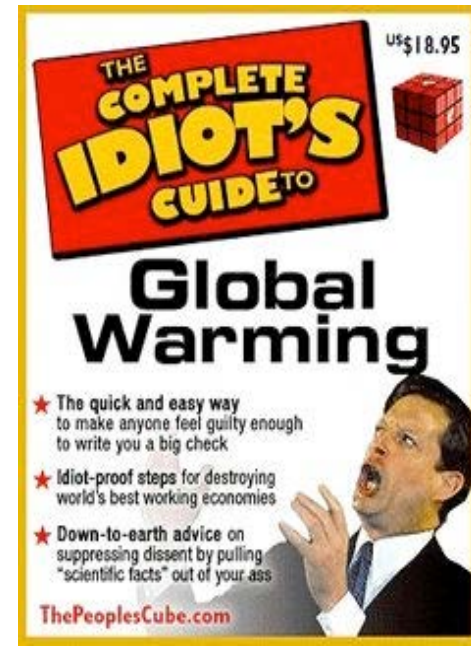
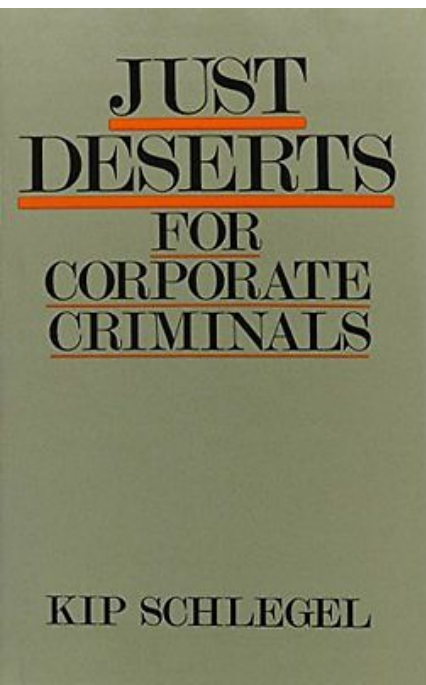
Moreover some actions
that were not even possible in the past
should be criminalized now that they are possible.

For example,
denying and actively contributing
to global warming and sea-level rise
might be criminalized.



Indeed, if there is a good case to be made for
capital punishment,
and not just life imprisonment,

it is for the climate change-denier
captains of industry and finance
who are destroying the world of future generations
while prospering so well now,
some people say.



Some jurisdictions have already given representatives of future generations the right not only to participate in policy-making that may impact people to come more adversely than it impacts living people now, but also to sue or bring criminal charges against the perpetrators of such acts.



CRIMES AGAINST FUTURE GENERATIONS

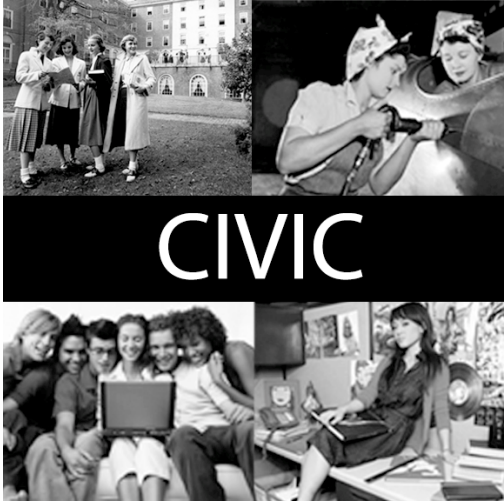
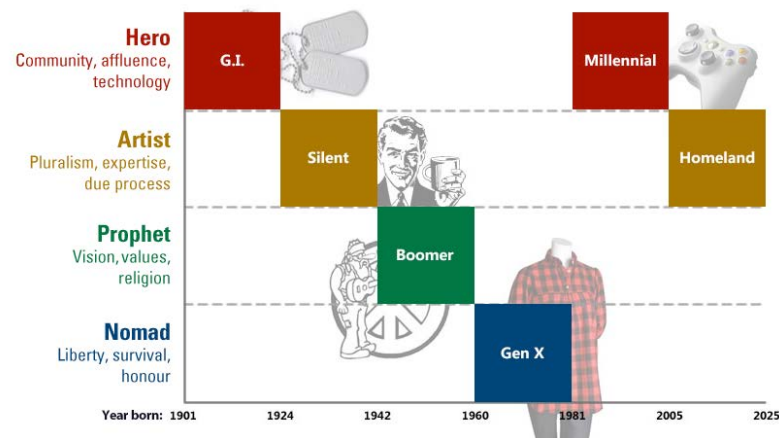


Balancing the rights of future generations
with those of present generations
should become an integral part of all systems of justice.

I hope you will not be a defendant in such a case because you ignored the rights of future generations in your practice of architecture.



Howe/Strauss Generational Archetypes and Generations



Demographically,
the old “can-do” GI age-cohort
that ruled the second half of the 20th Century
is long gone,
while the Boomers, their main rivals
and the largest age-cohort
in world history,
are retiring rapidly.





Filling their places are the few, pitiful Gen Xers and the numerous, super-competent, group-oriented Millennials.



And yet they are not “filling their places”
because the jobs are vanishing with the Boomers.

Millennials are either entrepreneurs
in the gig economy,



or permanently under-employed,



or alternatively both,

while about to emerge
are the as-yet undefined
Adaptive cohort
Strauss and Howe labeled “Cybers”,
now often called “Homelanders”.



But the point is:

When one dominant age-cohort leaves power and another moves in, the world changes.

Mind the (generational) gap

NHS
Health Education England



'Baby Boomers'	'Generation X'	'Generation Y'	'Generation Z'
1946-1964	1965-1980	1981-1994	1995-2010
Motivated and hard working; define self-worth by work and accomplishments.	Practical self-starters, but work-life balance important.	Ambitious, with high career expectations; need mentorship and reassurance.	Highly innovative, but will expect to be informed. Personal freedom is essential.
25% of the NHS workforce	40% of the NHS workforce	35% of the NHS workforce	<5% of the NHS workforce

Jones K, Warren A, Davies A. 2015. *Mind the Gap: Exploring the needs of early career nurses and midwives in the workplace*. Summary report from Birmingham and Solihull

HOW DO WE DEFINE THEM?

MILLENNIALS

Age: 19 – 36 years
Total in US: 72.5 MM
Most educated
Less likely to be married



BOOMERS

Age: 49 – 67 years
Total in US: 69.2 MM
Wealthiest Generation

A big change is unfolding now.

Now, let's consider how technology might
continue to change
justice architecture.



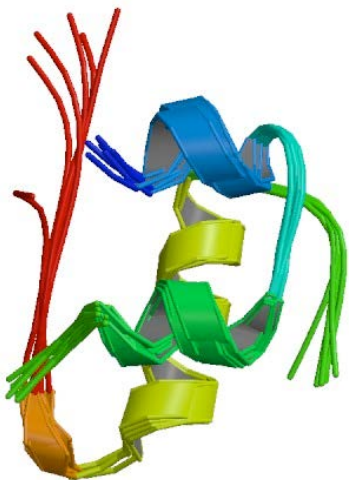


3-D printing and robotic assemblies are already realities.





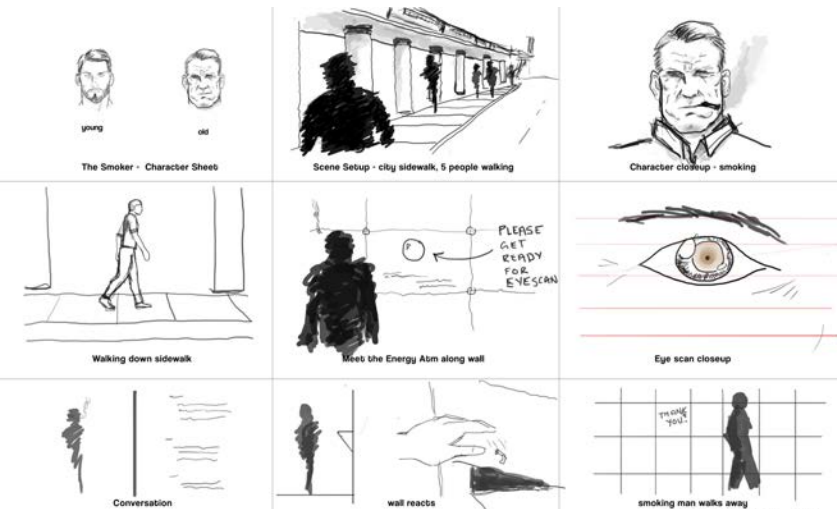
It is likely that building materials
will continue to evolve
from rigid, “permanent” structures of steel and concrete,
to fluid, organic forms of bionanosynthetic plasticity.



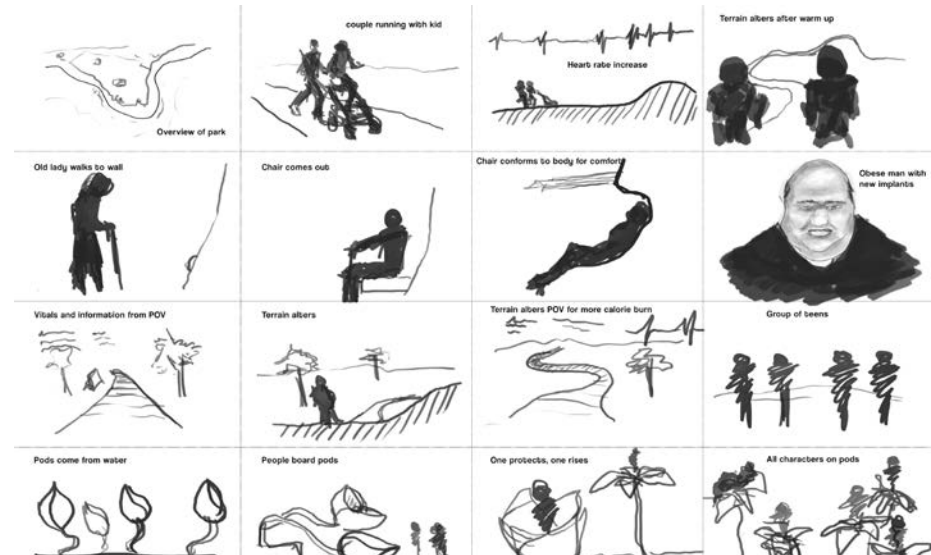
Autodesk Research



These living, smart materials can be used instead of laws, human police, judges, and prisons interactively to “nudge” people into preferred modes of behavior and away from undesirable modes.



Storyboard - Don't Litter - the smoking man
Team 3 / February 21, 2013 / Arch 693 - Project 1
Brian Caldwell Gordon, Matthew Kubota, Cham Wadu, Shelly Tamang, Timothy Hyund Park, James Stiefvater, Alexander Felix



Storyboard - The Park
Team 3 / March 5, 2013 / Arch 693 - Project 2
Brian Caldwell Gordon, Matthew Kubota, Cham Wadu, Shelly Tamang, Timothy Park, James Stiefvater, Alexander Felix, George, Ronald

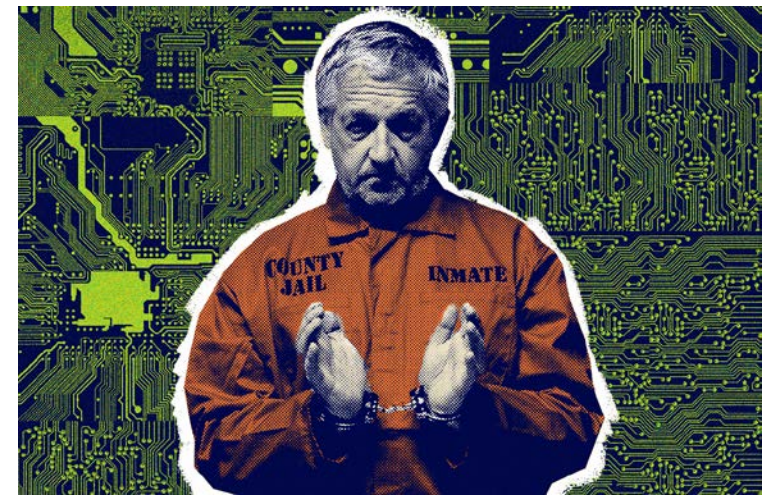


However, virtual realities are replacing physical realities everywhere.





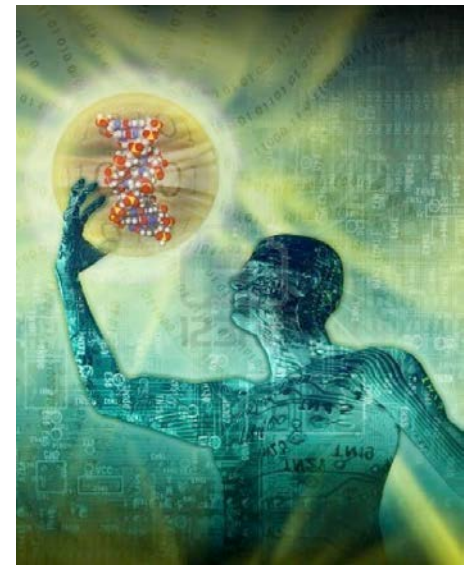
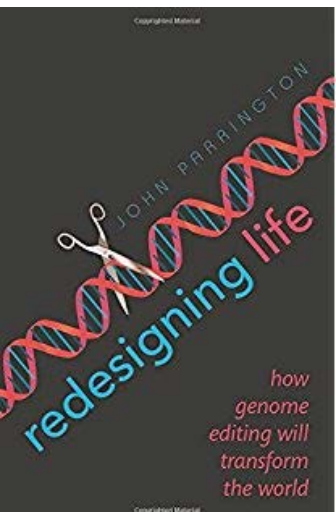
Policing and arrests by humans,
with trials and decisions made in physical courthouses
before human judges,
and incarceration in physical prisons
may be vanishing away.





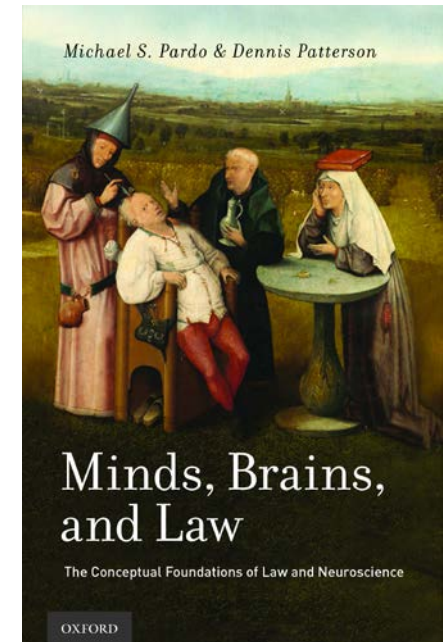
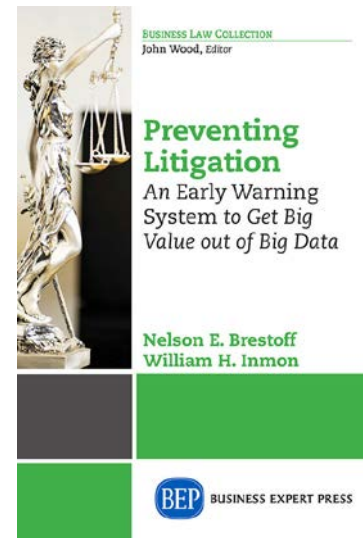
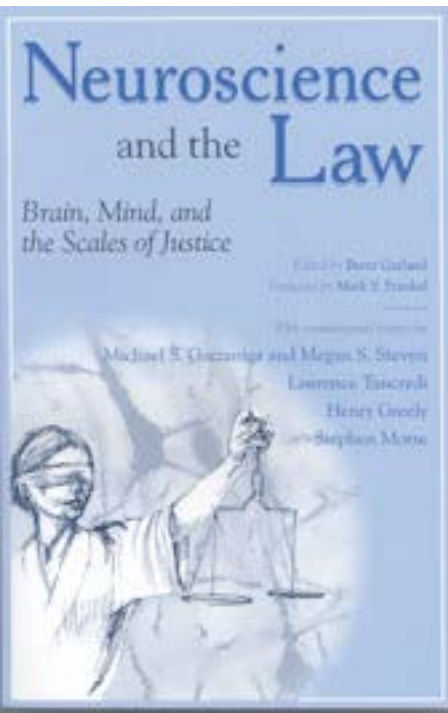
Genetic engineering suggests the possibility of
designing people who are simply
incapable of acting violently,

and/or who can be rebooted to normalcy
if they somehow do become violent



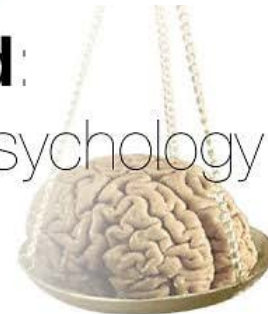
Neuroscience

—our knowledge of the role of the brain in all of this—
is advancing with impressive speed
and the possibility of
anticipatory prevention procedures
is looming.



Models of the Mind:

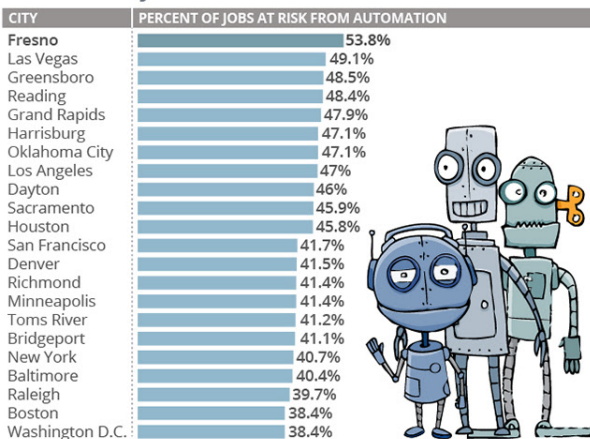
How Neuroscience, Psychology
and the Law Collide

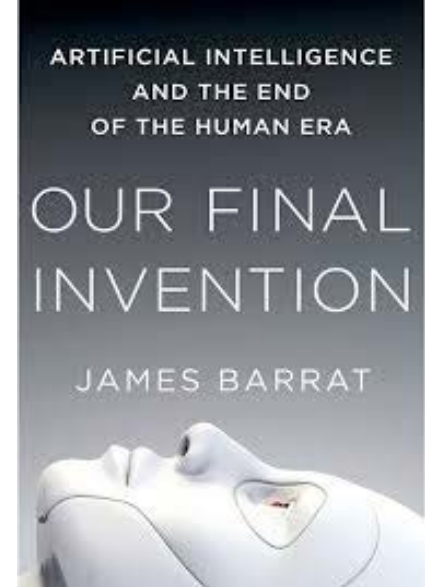




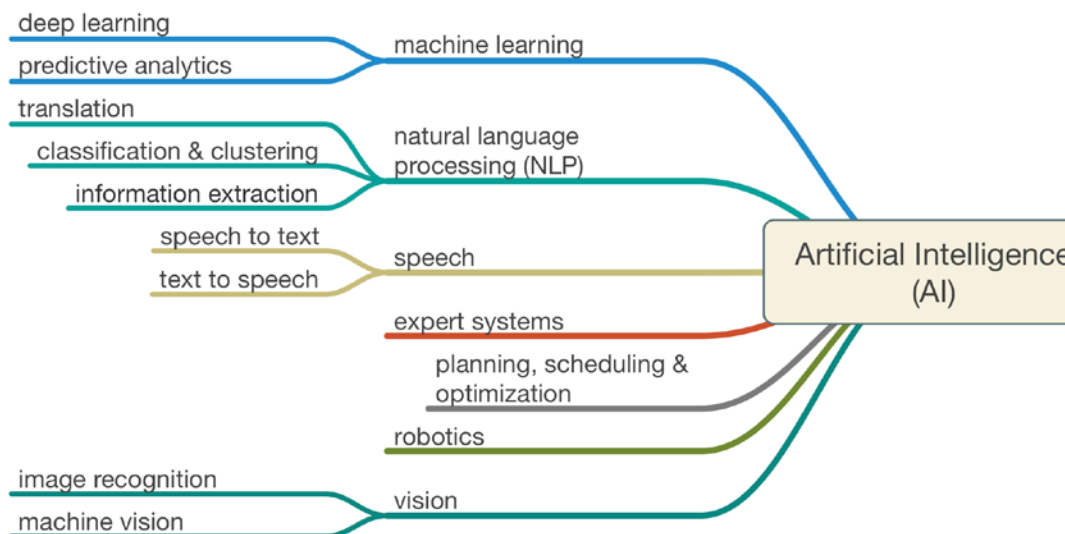
Clearly robots, artifacts and transhumans are challenging and replacing humans in many activities, and perhaps soon, in all aspects of life.

Cities with jobs at risk from robots





Law, courts, and prisons
are among the institutions of the present
most easily rendered obsolete
by artificial intelligence and neuroscience.



NEW YORK TIMES BESTSELLER

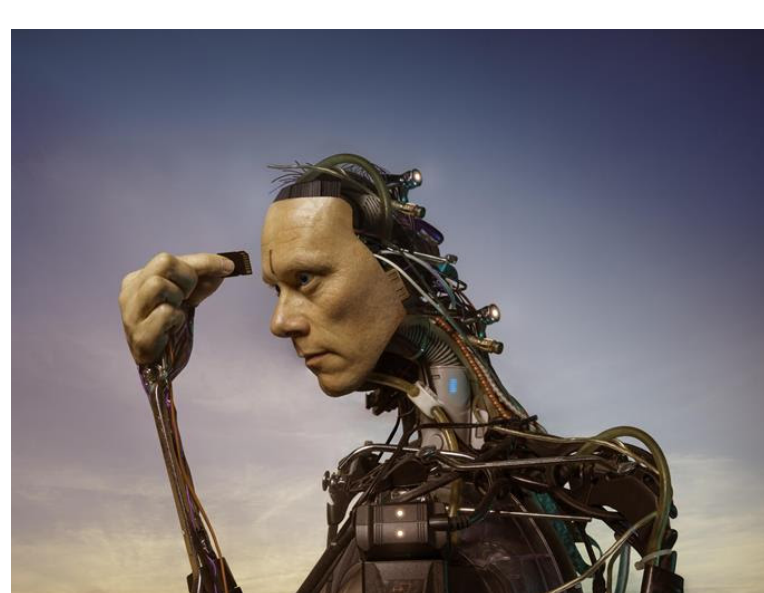
MARC GOODMAN



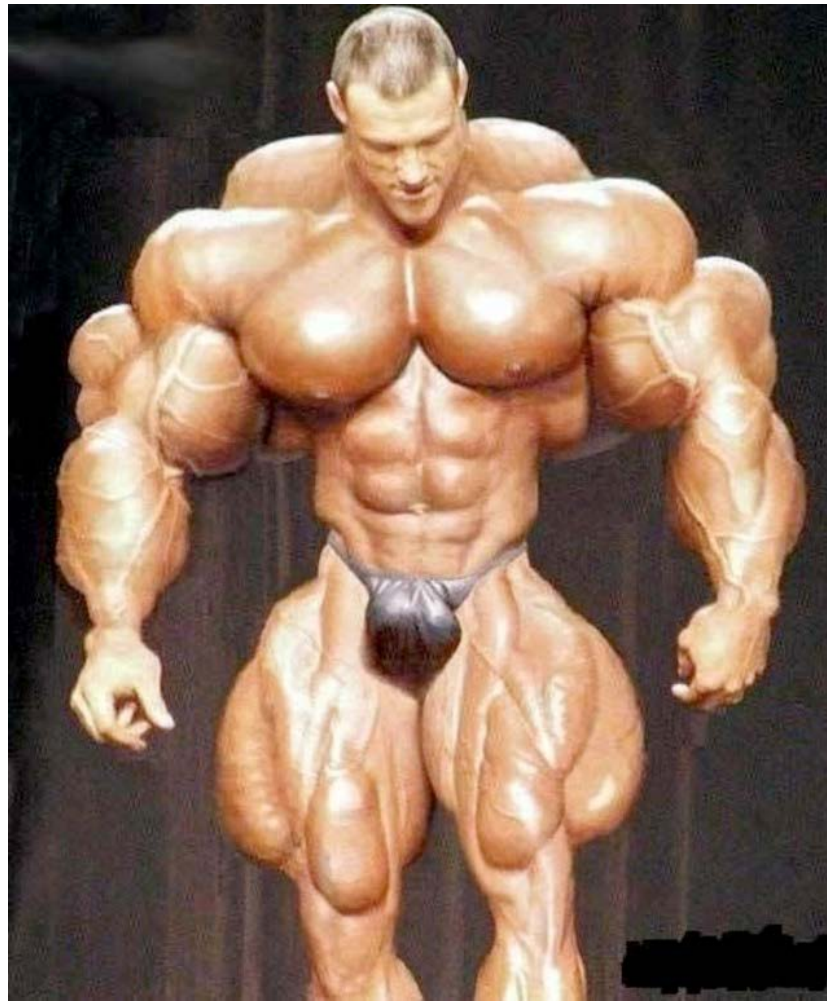
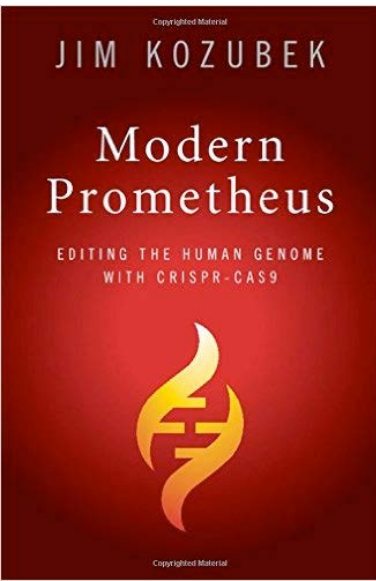
FUTURE CRIMES

Inside the Digital
Underground and the Battle
for Our Connected World

Of course all of these new technologies provide new opportunities for crime, including crime by robots and posthumans too --



while the probability that good intentions will go awry,
with monsters produced
when docile geniuses were intended,
are greater still--





thus providing boundless new job opportunities
for you.


But I have been mainly discussing
only one future so far!

There is every reason to assume
that all of those high tech fantasies
will be swept away
by the challenges of the Anthropocene Epoch.

The Anthropocene:

A New Epoch of Geological Time?

Wednesday 11th May



The concept of the Anthropocene represents one of the most democratic and bottom-up organizing principles that Earth science has ever seen. The term is already embedded in the language of scientists, socio-economists, politicians, and the media. If we are to understand the significance and scale of contemporary global change, in all its forms, we need to know it, to see it, against the backdrop of the Earth's full story. And we need to see it from as many perspectives, from as many realms, as possible.

This conference will bring together the range of disciplines and realms to discuss, to debate the evidence for the Anthropocene.



SPEAKERS

Paul Crutzen	CONVENERS
Andrew Revkin	Michael Ellis
Dennis Dimick	British Geological Survey
Will Steffen	Jan Zalasiewicz
Davor Vidas	University of Leicester
James Syvitski	Mark Williams
Dorothy Merritts	British Geological Survey
Erle Ellis	& University of Leicester
Toby Tyrrell	Alan Haywood
	University of Leeds

CONFERENCE THEMES

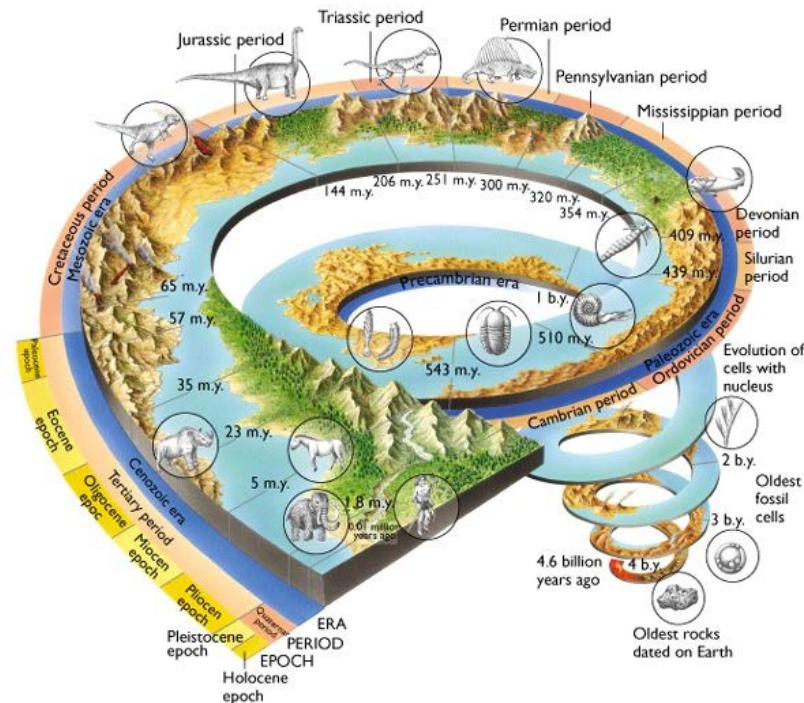
LIFE AND ITS DIVERSITY
HUMANS AND GEOLOGY
SOCIO-ECONOMIC ISSUES

For further information please contact Leila Taleb:
The Geological Society, Burlington House, Piccadilly, London, W1J 0BG
Tel: 020 7432 0981 Email: leila.taleb@geolsoc.org.uk
Web: www.geolsoc.org.uk/anthropocenesconf



The Geological Society
uniting science and profession

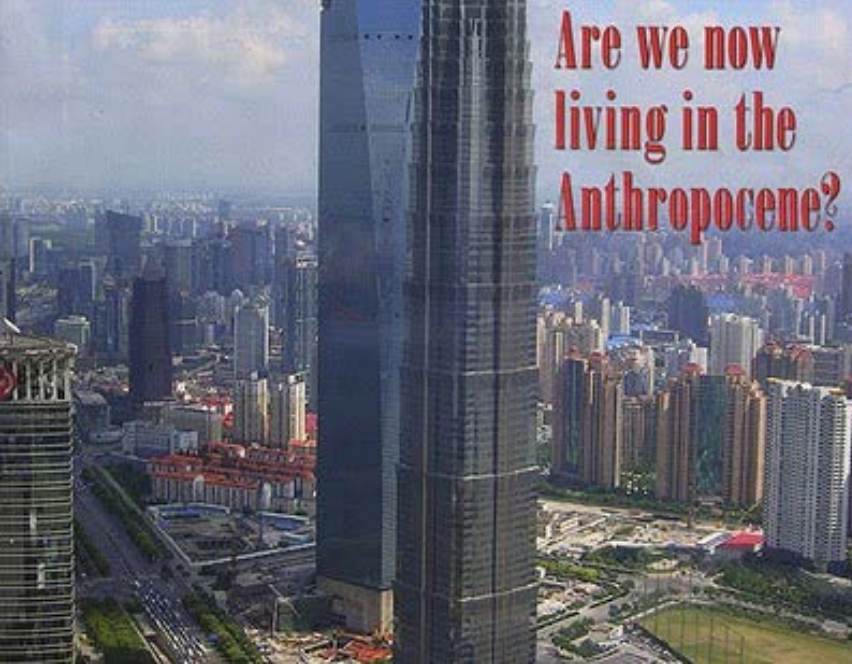
Even though humans are extremely recent arrivals in the overall evolutionary processes, many geologists are now saying that the Earth and all its inhabitants have moved from the Holocene Epoch in which humans emerged, into the Anthropocene Epoch which we have created..





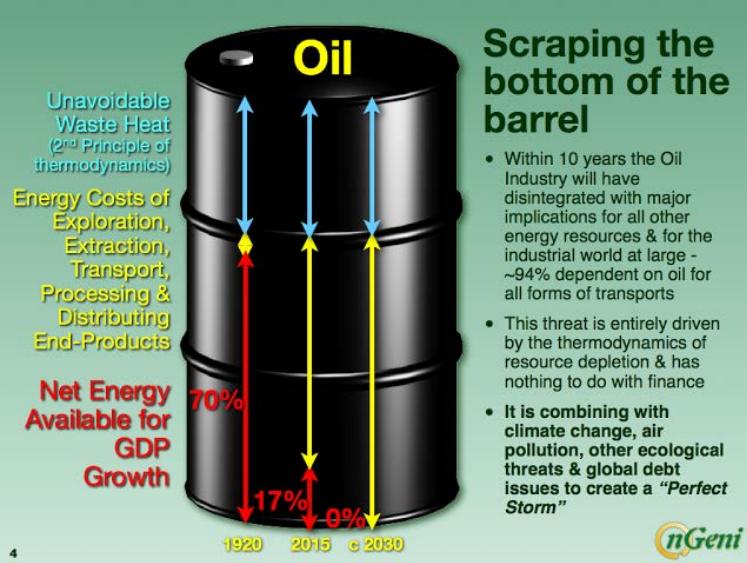
In an evolutionary eye blink,
humans have profoundly altered
every geological and biological process on Earth
that once operated independently of human influence.





As a consequence,
humanity is faced with
a host of unique challenges
of which our acts are the major cause:



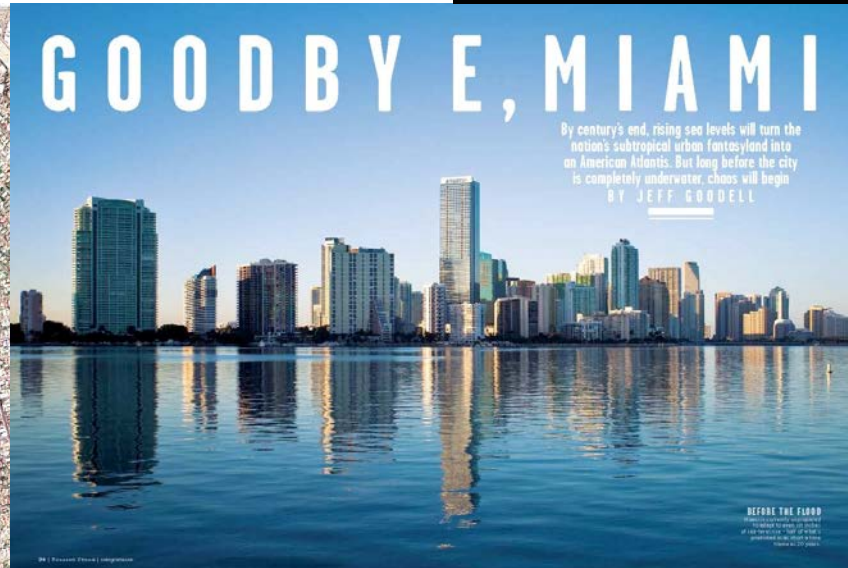
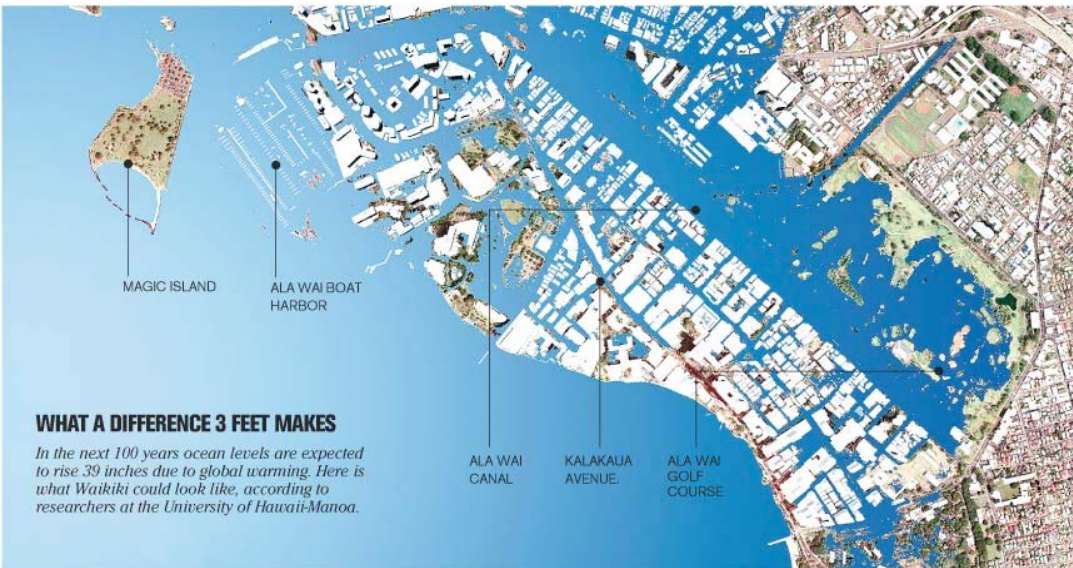


the end of cheap and abundant energy
that made the past 200 years of material effluence possible;

the end of stable and predictable weather patterns
that, along with cheap and abundant oil,
made cheap and abundant food possible;



rapidly rising global temperatures
and rapidly rising warming seas—



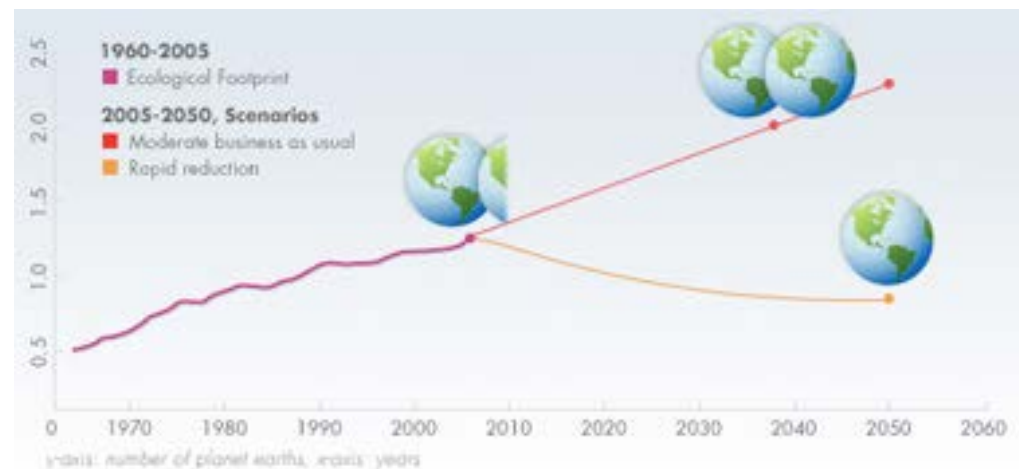
all showing that the future soon may be
profoundly different from the present or the past,

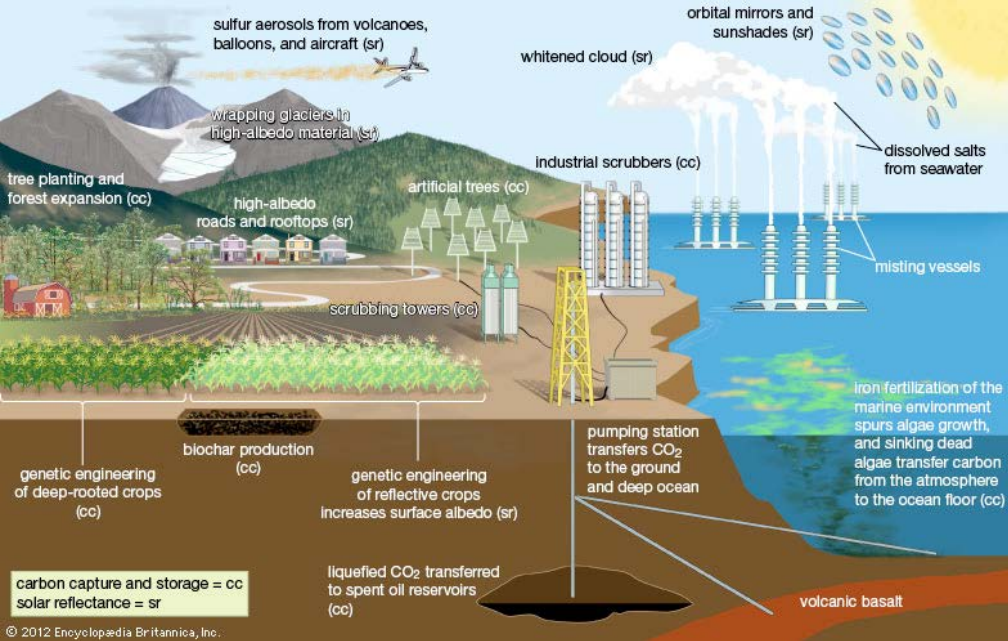
and that architects have
a special obligation and opportunity to prepare us for it.

The world seems in the midst of something very, very big:



either ending many thousands of years
of human interference with nature,
and trying to find a way to balance our ecological debt,





or engaging in “geoengineering”
on a far more massive scale than ever before—

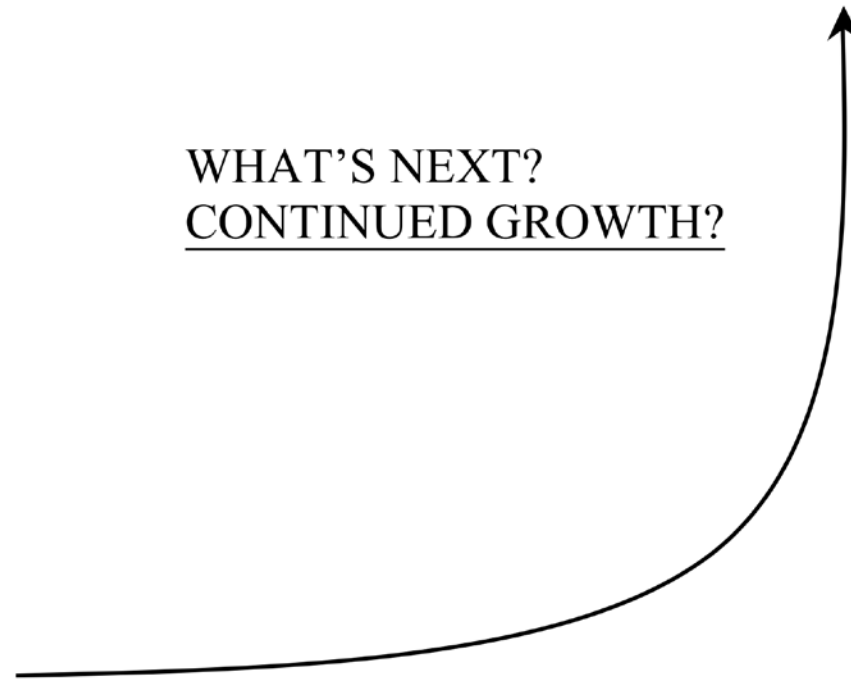
such as purposely putting material into the atmosphere
by exploding nuclear bombs,
or causing volcanoes massively to erupt,
or seeding the oceans to produce algae blooms,
all in order to induce global cooling
or....

Or we will do nothing but continue irresponsibly on,
focusing on petty wars, squabbles, and terrors,



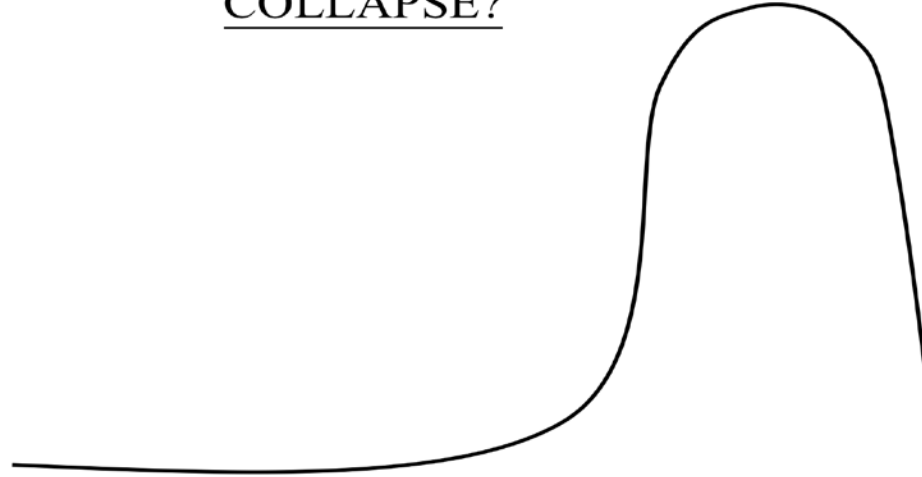
and let nature decide what to do about humans,
including getting rid of us entirely
and starting anew.

So there seem to be four images of the futures ahead of us:



Grow
(Continued Economic Growth),
the official future of all institutions and countries
everywhere in the world today;

WHAT'S NEXT?
COLLAPSE?

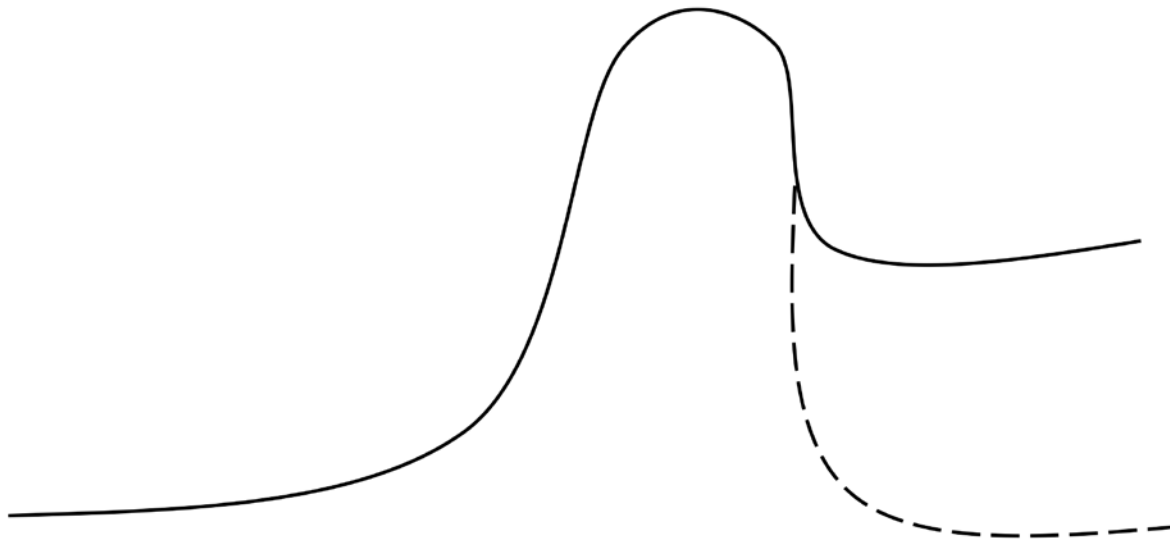


Collapse,

As governments, economies and the biosphere fail,
bringing all industrialized processes down with them,
while offering a rare opportunity for New Beginnings;

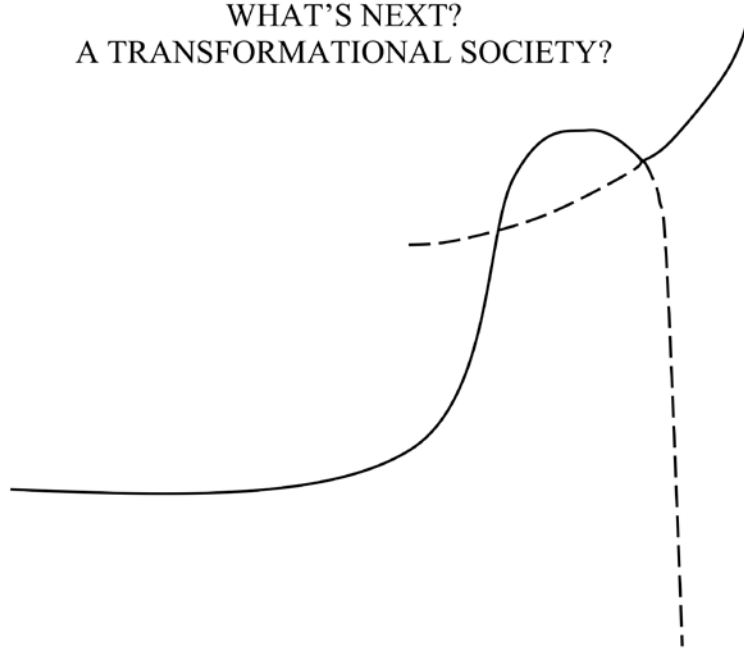
Discipline,
around values that will stop both Collapse and Growth
and allow us to thrive in harmony with all life;

WHAT'S NEXT?
A DISCIPLINED SOCIETY?



Transformation,
as robots, artificial intelligence,
transhumans and posthumans on Earth
and on the Moon, Mars, Venus and elsewhere
transform humans into something that emerges from us,
but is as unpredictable in form and purpose

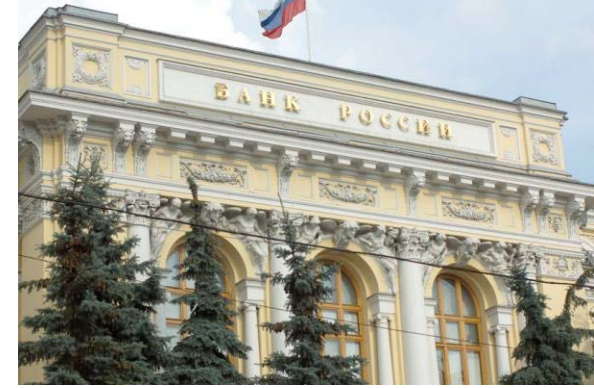
WHAT'S NEXT?
A TRANSFORMATIONAL SOCIETY?





as a butterfly is unpredictable

if all you have ever seen is a caterpillar
beginning to spin its cocoon.

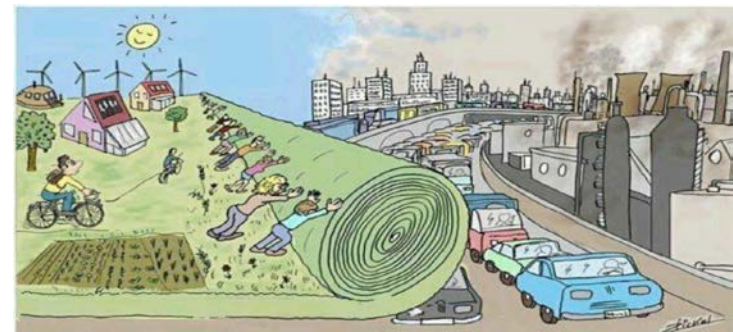


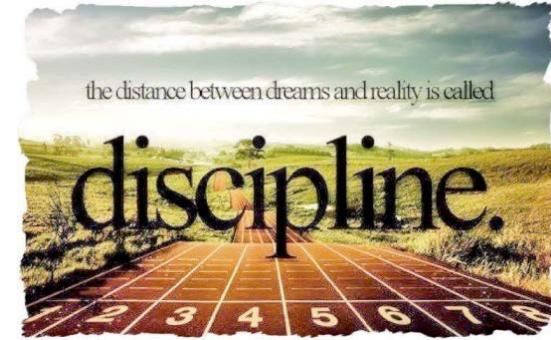
Under the assumptions of **Grow**,
the future of crime and justice architecture
will continue to be determined
by the wishes of
whoever controls global finance and politics.





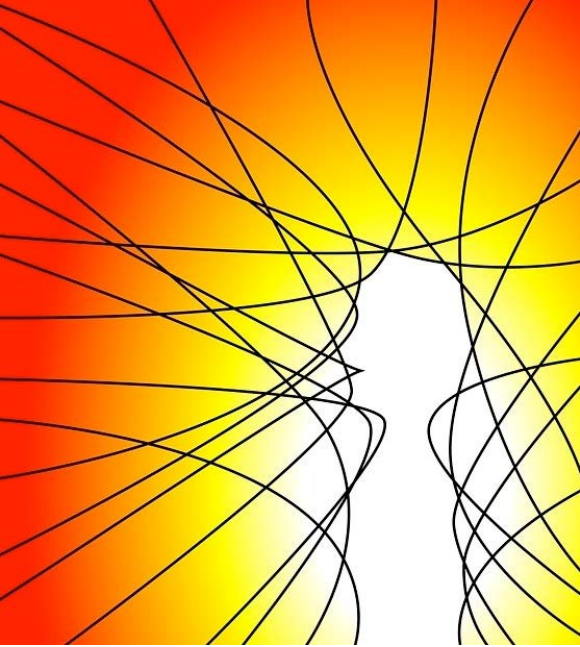
Collapse offers the opportunity for profoundly new and better human relations in balance with the biosphere—as well as the possibility of a future of unimaginable cruelty and barbarity if we do not prepare affirmatively for Collapse.





In a **Disciplined** Society,
acts against whatever is necessary for
environmental sustainability
may be treated as the most serious crimes,
with environmental criminals dealt with severely.





One version of a **Transformational Society**
is eloquently expressed in this poem
by Richard Brautigan:





*I like to think
(and the sooner the better!)
of a cybernetic meadow
where mammals and computers
live together
in mutually programming harmony
like pure water
touching clear sky.*





*I like to think
(right now please!)
of a cybernetic forest
filled with pines and electronics
where deer stroll peacefully
past computers
as if they were flowers
with spinning blossoms.*





*I like to think
(it has to be!)
of a cybernetic ecology
where we are free of our labors
and joined back to nature,
returned to our mammal
brothers and sisters,
and all watched over
by machines of loving grace.*





What a great time it is to be young and alive—
all the old ways seem to be disintegrating
providing an exceptional opportunity and obligation
to create new worlds all over again.





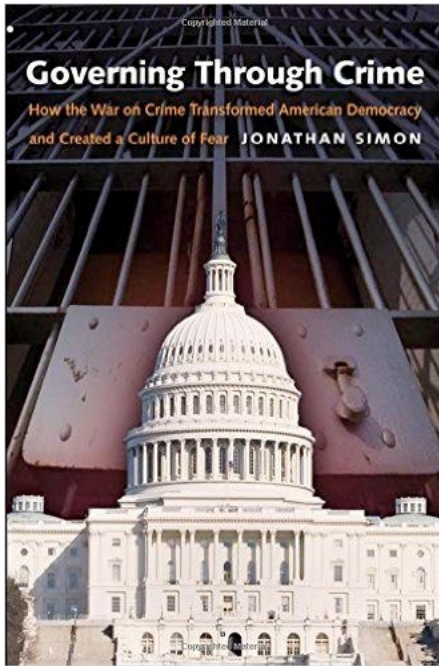
What a great time to be an architect,
full of energy, vision,
and the ability to mobilize people
to make your dreams come true.



I can hardly wait to see what you make of
this extraordinary moment in time.



Alternative Futures of Justice and Architectural Design



Academy of Architecture for Justice Conference

November 2-5, 2016 | Honolulu, Hawaii



Jim Dator

Department of Political Science
Futures Studies

College of Social Sciences
**UNIVERSITY
of HAWAII'**
MĀNOA