

Is White Innocence Holding Back Climate Movements?

Santa Barbara
October 2020



So many people want to build stronger climate movements. But how?



Many think the starting point is to unite around a basis of shared **knowledge, interests and objectives.**

What is this basis thought to consist of?



Many identify the *knowledge* basis for broad-based climate movements as **climatology**.
“We can unite behind the science.”



Many assume that there must be a shared *interest* in **avoiding apocalypse**. “We must prevent extinction.”



And many conclude from this that a shared *objective* of climate movements everywhere can be “carbon-zero **energy**” ...



... **distributed** justly, together with green jobs, in ways that increase further the appeal of climate action.



This view of climate movement-building has become so entrenched that any challenges to “green energy” – much less any criticisms of the thermodynamic conception of **energy** or the climatological conception of **climate** – are assumed to be self-evidently damaging to the cause and to be playing into the hands of fossil fuel companies.



So what I'm going to do in this talk will
be unsettling to some ...



... namely that the triad of **climatology—apocalypse concern—green energy** is not a viable starting point for a broad-based global climate movement ...



... and indeed has become an obstacle to politically-effective climate movement-building.



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“[The concepts of *white climate* and *white energy*] resonated with me and answered some of the questions why FFF and Extinction Rebellion don’t resonate with grassroots movements struggles in Southeast Asia. I find that those organizing for it are country chapters of 350.org or those plugged into international debates, but the narratives they espouse don’t really catch on.”

Southeast Asian activist

“It is a very useful line of argument at the moment in the North (and many cities in the South I believe) for shaking the foundations of so many ‘climate justice’ activists.”

Latin American activist



“[This] Eurocentric lens *that is assumed to be a common norm* has long negatively impacted upon us.”

Tom Goldtooth



WE NEED TO TALK ABOUT
WHITENESS

Fortunately, I don't think it's impossible for white climate movements (or the white part of multiracial climate movements) to become more sensitized to the **whiteness** of climatology, of thermodynamic energy, of certain kinds of apocalypticism, and of certain kinds of rage against critics of "green energy" ...



WE NEED TO TALK ABOUT
WHITENESS

... *and* to apply this increased self-awareness to the task of building better movements together with others who have incommensurable historical experiences and understandings.



Let me suggest quickly four ways that might help start on this task.

FIRST, to open one's eyes to the whiteness of **climatology** ...



In 2014, Sir John Houghton, founding member of the IPCC, gave an interview explaining why IPCC scientists could not mention the carbon in fossil fuels (or fossil fuel extractivism) in their analysis of climate change, but only carbon that had become more mobile in the form of CO₂.



To follow what happens when carbon atoms move over the border into the atmosphere is “**science**,” Houghton said. But to analyze what happens to *make* so many carbon atoms migrate in this way is “**not a science question**.”



To treat this climatology as the *starting point* for climate action, therefore, is to take a political stance that prioritizes stopping the migration of CO₂ molecules across the border into the atmosphere.



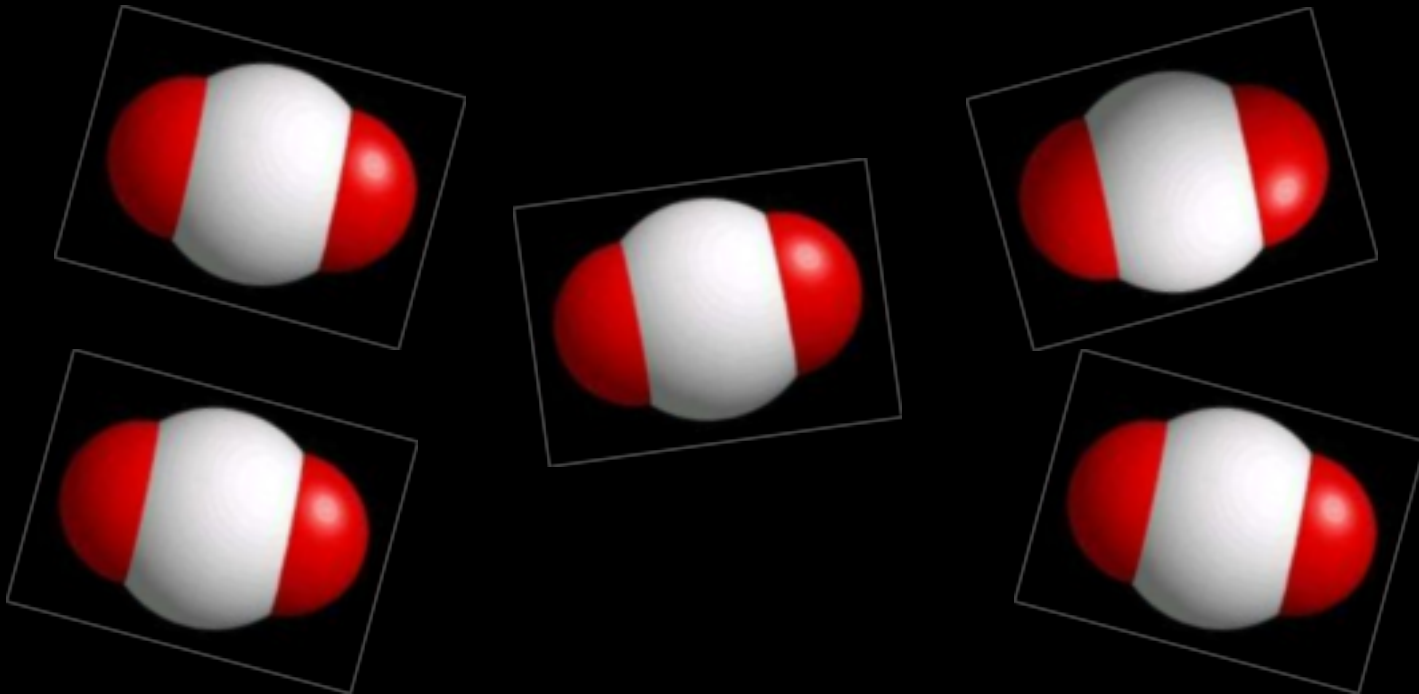
It is to hypothesize and then to privilege imaginary, omnipotent “molecule police” tasked with patrolling the border of the atmosphere – and to invisibilize and disempower everybody else, everywhere else.




an identifiably “white” approach like identifying a society’s problems as stemming from “too many foreigners” and then “solving” that “problem” by building a wall around that society ...




In other words, to see climate change
“climatologically” – as a problem of too
many rogue carbon dioxide molecules in
the wrong places in an otherwise implicitly
benign “baseline” system – is to ...






Invisibilize a historical process of climate change that is inseparable from settler colonialism and global white supremacy by changing the subject to **molecule movements**.



Handicap any practical attempt to engage collectively with that historical process (and thus to engage with climate change), and instead ...



Perpetuate climate crisis by recasting it as an “immigration problem” and the solution as “immigration control.”



SECOND, to understand that it is a white way of thinking to invoke apocalypse as if it were a new, exceptional *future* disruption of “normal” history instead of an old and continuing reality that people of color have been forced to confront for hundreds of years.



“Native Americans have seen the end of their respective worlds ... this should be correctly termed an apocalypse ... Indians survived the apocalypse ... and the history of apocalypse **continues** to be the current-day reality for many Native Americans.”

Lawrence Gross
Anishinaabe
University of Redlands



“If one is searching for a year that marks the ... dawning of the apocalypse, 1688 is the date ... The construction of ... ‘whiteness’ – and its complement white supremacy – took off as the African Slave Trade ... was reaching a new stage ... the “militarized identity politics that was ‘whiteness’ ... [which formed] the sinews of the emerging system that was capitalism ... has persisted stubbornly into the twenty-first century.”

Gerald Horne
University of Houston



It's not only the violent loss of 50 million Indigenous peoples in the Americas, and an equivalent number of Africans in the Middle Passage and the slave trade, but also the loss of “reciprocal relationships with thousands of plants, animals, and ecosystems — most of which are not coming back.”

Kyle Whyte
Potawatomi
University of Michigan



The full achievement of this apocalypse was something that many whites striving to rule the backcountry of North America between 1600 and 1800 could still only dream about. The frequent white environmentalist denial that the flip side of their imagined “pre-climate-apocalypse normality” is, in fact, a longstanding Indigenous and Black apocalypse *“threatens allies’ capacities to build coalitions with Indigenous peoples”* in that it *“can erase Indigenous peoples’ perspectives on the connections between climate change and colonial violence.”*



What whites often like to call the Anthropocene might be seen as just the delayed shock wave from the *same* centuries-old apocalypse finally arriving on their own horizon – that is, “into the nations who introduced colonial, capitalist processes across the globe in the first half-millennium in the first place.”

Zoe Todd
Métis,
amiskwaciwâskahin

Heather Davis
Settler,
Ontario



Past and continuing apocalypse has involved the breakdown of relations that today's hypothetical "molecule police" (focused on 1.5 degrees or 350 ppm) might find it hard to recognize as relevant: "consent, trust, accountability, reciprocity" and other qualities – sometimes referred to as "kin relationships" – that Indigenous analysts tend to see as central to climate change ...

... and as providing necessary "guidance on how to live under postapocalyptic conditions that recognizes that the apocalypse has already happened."



Attempts to empower these imaginary “molecule police” tend only to undermine these relations further, not repair them, thus exacerbating climate change at its roots. Given the long time needed to establish or repair such relationships, the more urgent climate task is not to keep trying again and again to empower more “molecule police”, but the opposite: to begin to question the dominion of “climatological” politics.



It follows that an activism that ...



Focuses only on “re-evaluating energy use,” or



Treats consideration of white supremacy and settler colonialism as “add-ons to” or “dimensions of” control of carbon molecules, or



Sees “identity politics” in Indigenous resistance to pipelines or oil extraction but not in white supremacy itself, or



Fails to talk about “modes of governance, ongoing racial injustice, and our understandings of ourselves as human” or



Fails to “think through and enact processes of decolonization,” including “self-governance for Indigenous peoples, the return of stolen lands, and reparations for the descendants of captured Africans”

... is unlikely to make for successful climate movements.

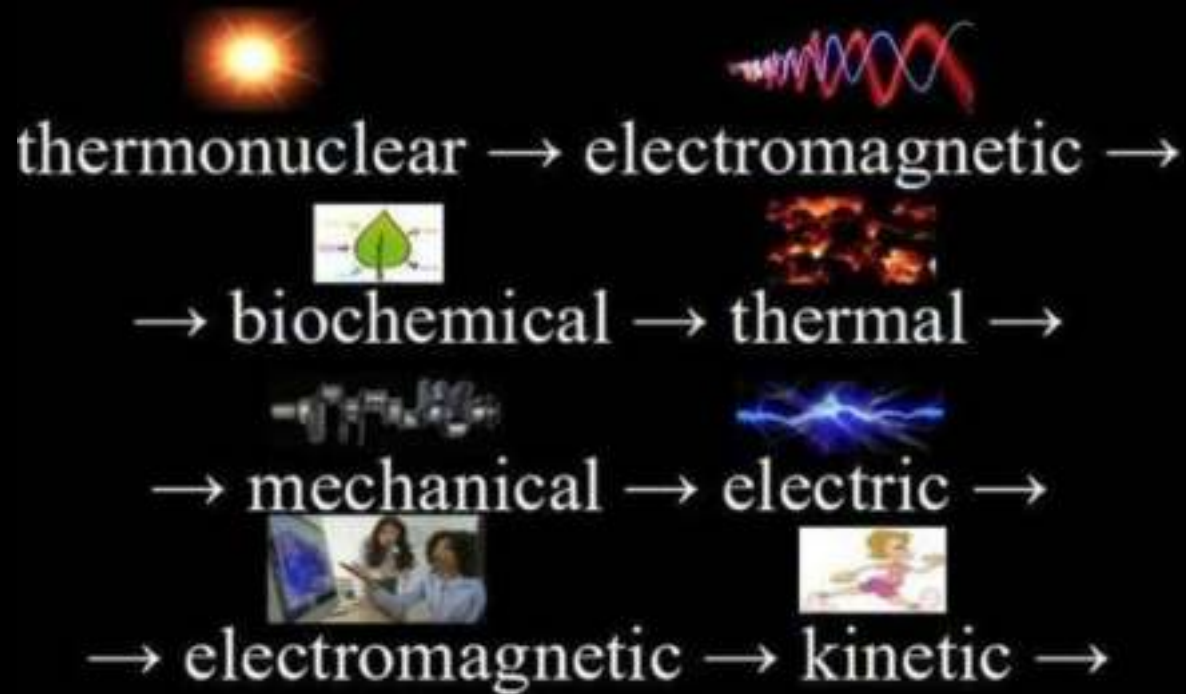


THIRD, to grasp that one key historical process that climatology obscures and that needs to be engaged with collectively is precisely the history of *energy* in capitalism. To engage with that history means recognizing that modern energy is inherently **white**.



How is energy white? ... Here it helps to remember that energy, as understood in dominant cultures, is a *new* concept.





The idea of a single, omnibus, interconvertible energy substance – so familiar today amid industrial capital's network of turbines, dynamos, internal combustion engines, batteries, transformers, electric grids, hydroelectric dams, biofuels, nuclear power stations, solar farms – did not exist **anywhere** before about 1800.



“The equivalence of [heat and mechanical energy] was not suspected by people in the eighteenth century; the notion that a horse pulling a treadmill and a coal fire heating a lime kiln were in some sense **doing the same thing** would have appeared absurd to them.”

Joel Mokyr
Northwestern University



That equivalence was theorized for the first time only in Europe by the First Law of Thermodynamics during the fossil-fuelled industrial revolution ...



... and the modern concept of energy rounded out only in the later 19th century by the Second Law of Thermodynamics.



Once we've remembered that energy
has a birthday ...



... the next question becomes:

Is it just an *accident* that this birthday can be dated to a time when ...





... a rising industrialist class was obsessing about how to confront the labour and labour power it wanted to separate further from the English countryside ...



... colonial empires
were being
consolidated in new
ways ...



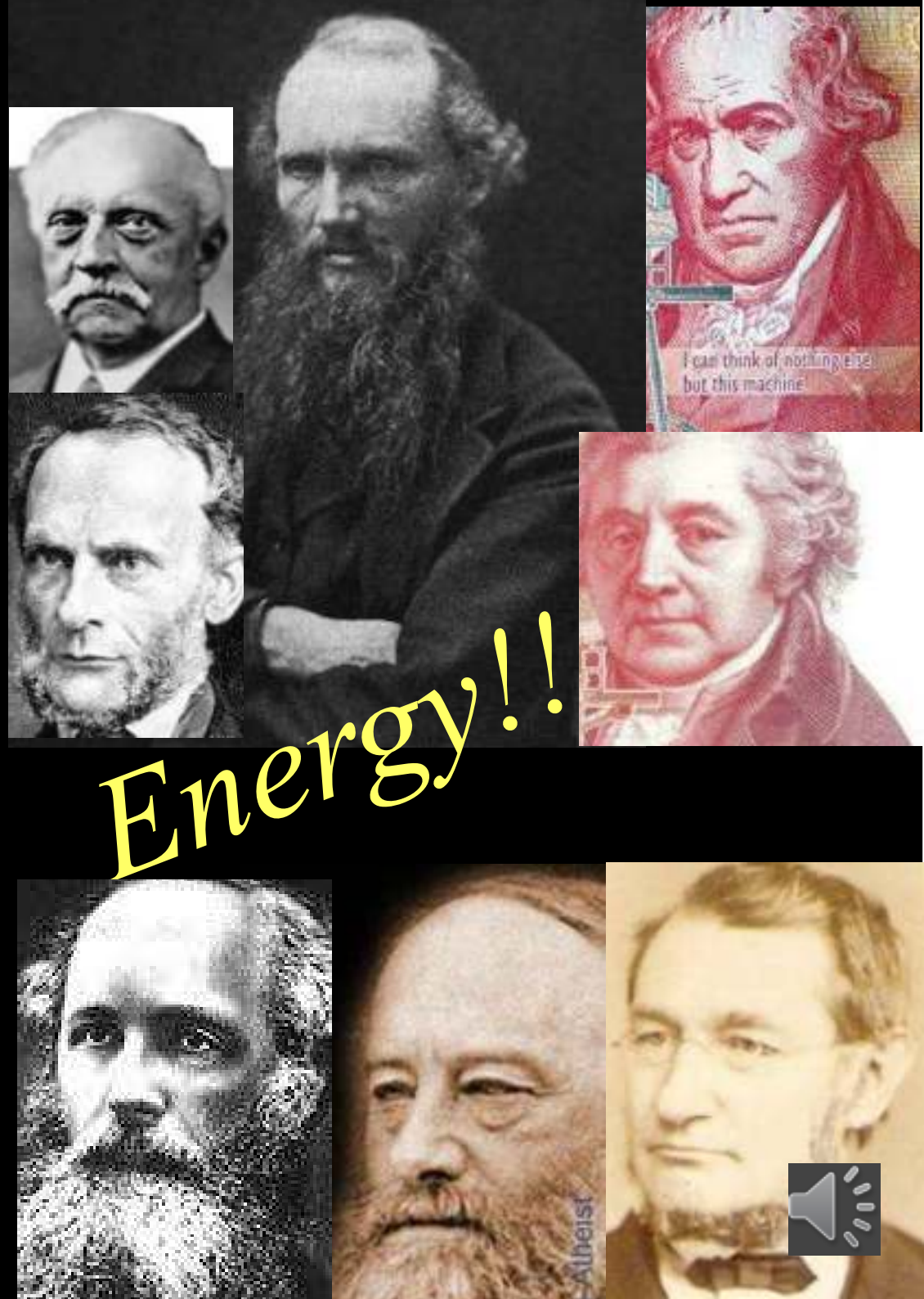
... orthodox economics was becoming established as a discipline ...

“An *economic* point of view formed the root of thermodynamics ... Economic and physical ideas grew up together, sharing a common context.”

Theodore Porter
UCLA



... and a large population of businessmen, colonialists, and white patriarchalists with faces out of Central Casting decided to go to work in earnest on the theory of steam engines?



Given the role of thermodynamics in particular in creating today's dominant energy concept, one question to ask is:

When does thermodynamics become useful and important as a way of defining “nature” ... and to whom?



Introducing Sadi

Carnot (1796-1832),
a brilliant young
French military
engineer who has a
good claim to be the
first energy physicist
– in the modern
sense of “energy.”



In 1824, just as the age of fossil capitalism was beginning, Carnot developed one of the great metaphors in the history of scientific discovery:

A fall of water ...



... can be compared to the “fall” from hot to cold in a heat engine.



This seed of thermodynamics may be one of the most fertile, beautiful comparisons in the history of science ...



... and is helpful in understanding the connections between modern energy and continuing settler colonialist and white supremacist assaults on land and territory.



For one thing, Carnot's analogy helped pave the way for the idea of a *unified, abstract energy* – and for the idea of large landscapes politically organized around various “falls” ...



waterfalls driving mill wheels ...



... *falls* of water through
hydroelectric dam penstocks ...



“*falls*” of air on the
blades of windmills ...



“falls” of electrons through the
electrolyte of batteries connected to solar
farms ...



... “falls” of soil fertility into sterility on
industrial biomass plantations ...



and, most crucially, “*falls*” from hot to cold within heat engines ...



... in turn made possible by “*falls*” from the chemical remains of Carboniferous-Era organisms, via heat-producing reactions, into ash and carbon dioxide.



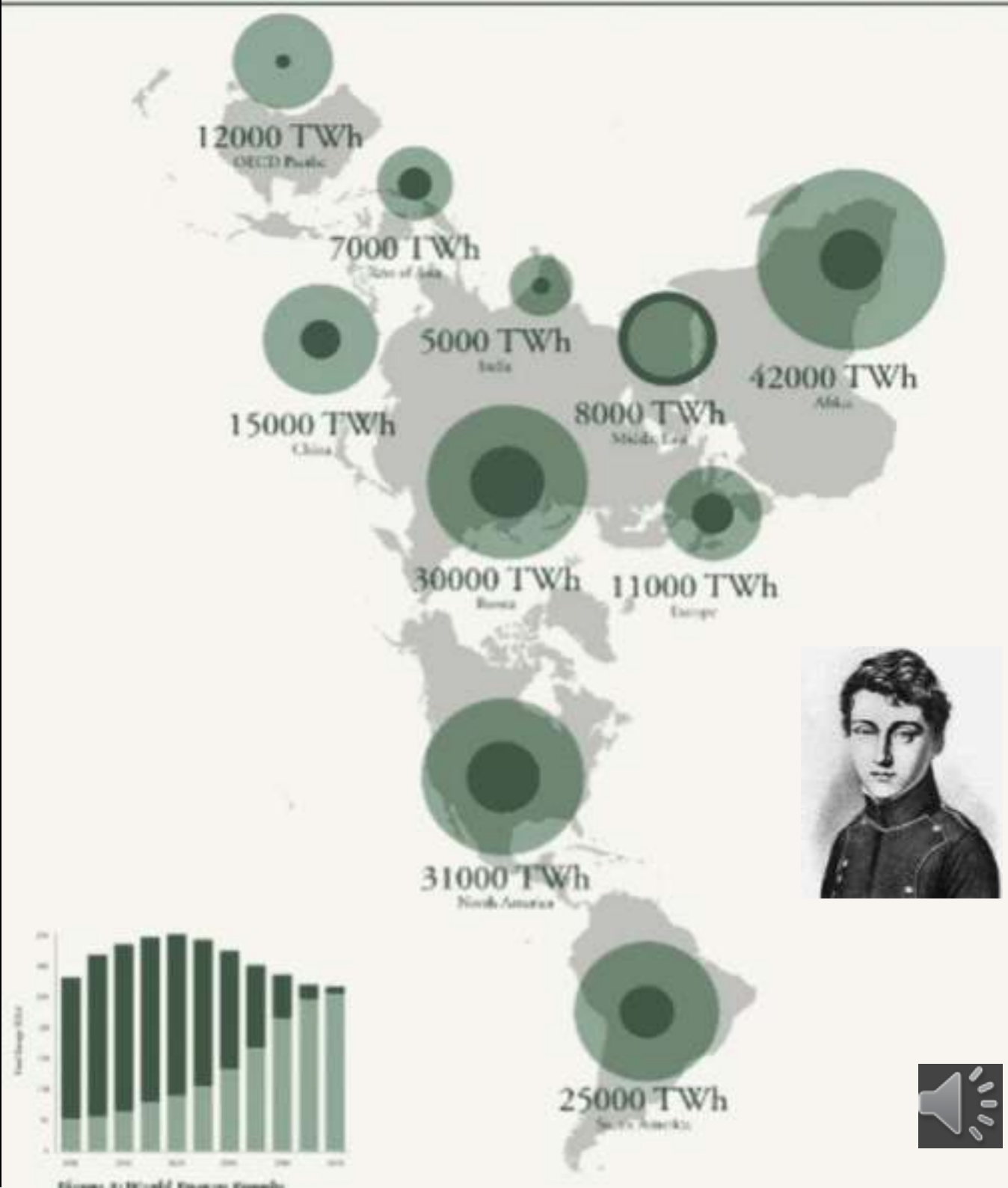
In short, a whole global terrain of “falls”
from which “unlimited,” abstract
energy/work can be derived.



Call it a “Carnot landscape.”



Here is another depiction of a Carnot landscape, showing even more clearly the political reorganization of territory around the abstraction of thermodynamic energy (from *WWF*).



Carnot landscape of multiplying “falls”
– as Carnot himself was one of the first to
realize – is also a landscape of systemically-
increasing *waste* (waste from a capitalist perspective).



One of the lessons of Carnot's brilliant analogy ...



... is that just as
water mills
cannot tap
waterfalls
without losing
some energy
along the way ...



... so too there
is no such
thing as a
perpetual-
motion *heat*
engine or any
other kind of
perpetual
motion
machine.



which means that the more conversion engines
you devise as a capitalist, and the more you
reorganize a territory around “falls” ...



... the more you're going to have to be obsessed with "efficiency" in order to minimize all that unusable "extra heat" you create ...

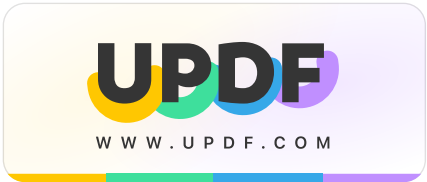


... and the more waste you'll need to keep under control or displace somewhere else.



Just as every one of Carnot's waterfalls is eroded down over time, and every hydroelectric dam becomes useless when it fills up with silt ...





So when high-quality energy like that contained in coal runs out and the world fills up with unusable waste heat, ash and CO₂ ...





... that's all she wrote: you can't reassemble the waste heat, ash and CO_2 back into coal without energy loss.



So while “the infinite multiplicity of energetic forms” set out by the First Law of Thermodynamics “inspired a tremendous optimism in capital’s search for new workforces” ...

George Caffentzis



... the Second Law of Thermodynamics “laced this high with arsenic”: it turned out that the more “falls” you recruited in your imperial territory, the less energy was available for work in the future.



Constructing “falls” in more and more out-of-the-way places ...



... means that, as they erode, piles of waste accumulate across the landscape in parallel ...



... that have to be cleaned up by growing numbers of the usual suspects ...



... or simply
absorbed by
them ...



or by the hard-working earth itself.



So a Carnot landscape is a highly unequal and racialized terrain not only because environmental racism in the conventional sense tends to become generalized there ...



... but also in the sense in which in which “non-white” territories supporting widespread “little energies” of subsistence ...



... are systematically
subordinated to
thermodynamic
energy's wide-scale
conversion regime ...



Let me suggest, then, that we take to heart the famous warning of the Nobel physicist Richard Feynman that the First Law of Thermodynamics has never described “**anything concrete**” and that “**in physics today we have no knowledge of what energy *is***” ...



... and that instead of looking at modern energy as a *substance*, we might, following Terrence Deacon, define it as a *relationship* – a “relationship of difference that tends to eliminate itself,” a “gradient across which there is a tendency to even out and dissipate” ...

... but understand this politically, in terms of *land* or *territory* (and all the implied relationships among human and more-than-human beings), by emphasizing the history and interests involved in the global organization of these “falls.”



Modern energy, on this view, simply *is*
a colonial, racist reorganization of
relations in Carnot landscapes.



and the ideological job of thermodynamics, as a description of that particular energy, is to transform Carnot landscapes – the expanding “second nature” in which “everything becomes degraded” –



into a dominant,
“natural,”
“universal,”
ahistorical norm or
destiny that can, at
best, be “managed”
or staved off by
obeying the
imperative of
“efficiency.”



Wilhelm Ostwald



We might also observe that the Carnot landscape of multiplying “falls” and waste is also a *timescape* in which the one-dimensional arrow of time associated with the Second Law of Thermodynamics becomes hegemonic ...



... over other, spiral, multidimensional or
accordion-like times, or times in which
present and past events can be
“simultaneous.”

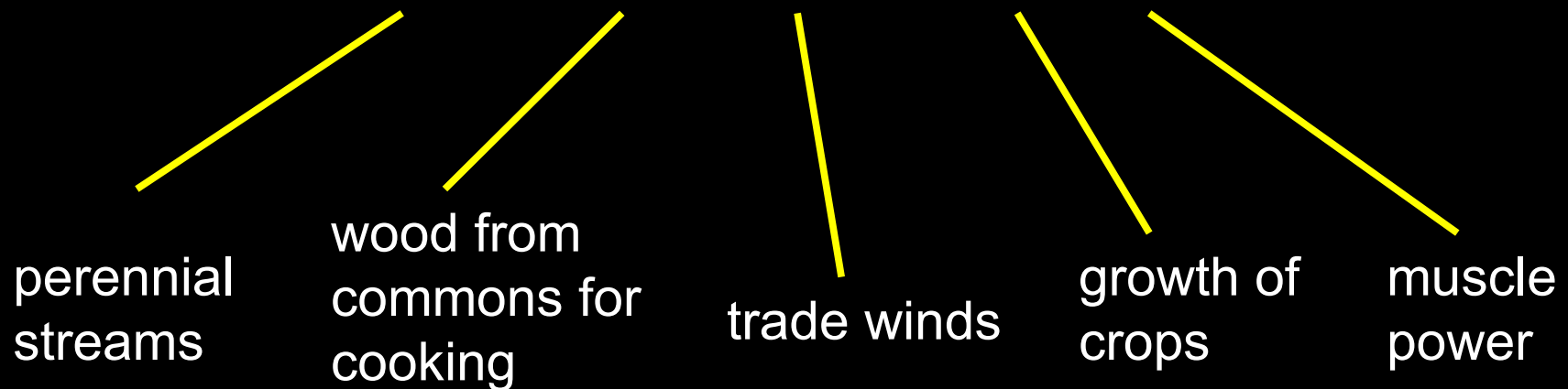
Silvia Cusicanqui



In short, to see energy as a form of territorial dominion is to see a generalized **hierarchy** in the world landscape, in which “little energies” linked to subsistence or to earlier capitalisms can be politically subordinated to the higher “Big Energy” of thermodynamics and industrial mechanization ...



Thermodynamic energy



... and to understand thermodynamics as not only white but also white *supremacist*, insofar as (to adapt the words of Charles W. Mills) it presents a “racially post-lapsarian world” as if it were pre-lapsarian.



On this view, the thermodynamic conception of energy is part and parcel of the idea of “sacrificing for development” – that higher goal that is said ultimately to benefit everybody ...



... and today's unending struggles over body, territory and time, instead of being reduced simply to **distributive justice** struggles over who gets what **energy goodies** when ...



... need also to be seen as struggles over
and against energy *itself*.



This is one way of seeing the tension between movements pushing for “energy for all” and movements that understand that this is a pathway toward more skewed Carnot landscapes ...



... a tension that continues to sharpen among energy and climate movements worldwide.

“No Harm Here is Still Harm There.

“Without accounting for globalized production, a Green New Deal in the Global North will merely spur the imperialist quest for cheaper resources and labour to satisfy ‘eco-friendly’ consumption.”

Vijay Kolinjivadi



*Bring a little about the Green New Deal.
Whenever there's a crisis of legitimacy for
the capitalist system, it's oftentimes
Indigenous lands that are sacrificed ... With
these transition plans the Navajo nation is
going to be producing solar power to fuel
the entire Southwest [US]. OK, so has it
really changed from a resource colony? ...
We have to address the primary
contradiction, which is settler colonialism,
if we're going to honestly and justly
transition out of the current carbon
economy."*

Nick Estes
University of New Mexico



FOURTH, to understand environmentalist rage against antiracist critics of “green energy” – and environmentalist impatience with movements such as Black Lives Matter – as movement-damaging attempts to preserve “white innocence” long past the time when that innocence has been lost.



what we really need to do is make the leap straight to renewable energy ... Banks, asset managers and insurance companies ... can drive change ... 350 is the most important number in the world ... I don't understand the reasoning behind these attacks ... ”

Bill McKibben, 350.org

“We don't have time to argue about social justice. If we don't solve climate change, Black lives don't matter. If we don't solve climate change now, LGBTQ [people] don't matter. If we don't solve climate change right now, ... the #MeToo movement doesn't matter.”

Jonathan Logan, Extinction Rebellion



Anyone who insists on remaining in a state of innocence long after that innocence is dead turns himself into a monster ... it is not permissible that the authors of devastation should also be innocent. **It is the innocence which constitutes the crime.**”

James Baldwin

“... an innocence that amounts to the **transgressive refusal to know.**”

Patricia J. Williams



In other words,
the continued
white insistence
that there *must* be
a “renewable” or
“green”
thermodynamic
energy out there
somewhere that
will save us all ...



... and that will somehow avoid the frontier capitalism of extraction and degradation ...



... can be seen as one more unviable “move toward innocence” aimed at rescuing “settler normalcy” and a “settler future” by avoiding the consequences of decolonization and imagining or presupposing an easy commensurability among Native, Black and white historical experience ...

Eve Tuck

K. Wayne Yang



... a move that is very much of a piece
with thermodynamic ideology.





KEEP
<ALM
AND
DE<OLONIZE

