

The Mystery Of The Missing Apes Who Came Before Humans

06-29-2024 ~ *The fossil record of our ape ancestors in Africa is almost nonexistent for a period of about 8 or 9 million years.*



The fossil record of our ape ancestors in Africa is almost nonexistent for a period of about 8 or 9 million years. This long gap lasted from about 16.5 million to 7 to 9 million years ago, during the Miocene geological epoch.

Yet fossil remains in Europe and Asia show an abundance of ape species flourishing and evolving new traits during that gap period for African apes.

The unanswered question is: How did the current ape species found in Africa evolve? The ape species now living in Africa are the closest living evolutionary relatives that humans have. For this reason, it is important to know where they came from. Are they the descendants of those apes that migrated to Eurasia during the Miocene and then returned to Africa? Or is the lack of African fossil remains from that period simply a result of local conditions, such as wet acidic soils, that might have destroyed them?

Paleoanthropologists have approached the puzzle from different angles. One hypothesis for the missing ape fossil record in Africa is that [apes originated in Africa and then migrated to Eurasia](#) in the mid-Miocene, where they evolved the preconditions for evolving into humans. In this scenario, the better-adapted ape species that weathered the late Miocene climate change, then returned to Africa where the human lineage then evolved.

Reconstructing Ape Lineages

Another approach is to infer the missing ape evolution that might have occurred

in Africa, but without leaving any fossil remains, by using genomic evidence from living ape species to reconstruct the missing lineages. University of Cambridge paleontologists Robert A. Foley and Marta Mirazón Lahr proposed a model of what this possible ape evolution might look like in a [January 2024 article in Trends in Ecology & Evolution](#).

Foley and Mirazón Lahr refer to the inferred evolutionary tree of extinct apes as “ghost lineages.” “Ghost lineages are species or groups of species that have not been observed directly, either in fossils or living species, but which have been inferred from gene sequences,” the authors said in an interview.

Tracing these ghosts is made possible by modern genomics, especially DNA analysis.

“We know about these ghosts by building phylogenetic or evolutionary trees of known species--such as apes, humans, Neanderthals, and so on--and looking for points in the trees that can only be explained if there were other, unknown species involved,” they said. “These are the hypothetical ghost lineages. Research has shown ghost lineages in hominin, chimpanzee, and gorilla lineages, as well as in many other taxa.” (Taxa is the technical term for divisions of species.)

“In hominin evolution they are ‘ghosts’ in the sense that we think they must have existed and been part of our history, leaving only traces in our DNA.” (Hominins is the term for humans and our fossil relatives.)

African Ape Ghosts

Foley and Mirazón Lahr discuss two plausible ghost models for extinct African apes based on the existing genomic evidence: a low-divergence and a high-extinction model.

In the low-divergence model, the *Gorilla* lineage branched off from the last common ancestor of *Pan* (ape ancestor) and *Homo* (human ancestor) between about 7.2 and 11 million years ago. Then both *Pan* and *Gorilla* ancestors of today’s existing ape species branched off from their ghost lineages. This view holds that the ancestors of the living ape species had only two periods of species growth, about 3 to 3.5 million years ago, and later, less than 2 million years ago.

As Foley and Mirazón Lahr point out, this rate of divergence “contrasts strongly with that of the hominins,” but it is still possible. “It seems unlikely given the

geographical range, environmental diversity, and time involved, that so little divergence occurred.”

The other hypothesis is the high-extinction ghost model, which holds that the African ape evolution followed a similar trajectory to that of hominins. The apes diversified and dispersed into new regions, but earlier lineages became extinct. This is a scenario that Foley and Mirazón Lahr find “more probable.” This high-extinction pattern follows what is known about the hominin fossil record from fossil finds in the last 50 years.

Foley and Mirazón Lahr stressed the importance of knowing more about the missing ape evolutionary evidence in the interview. “Chimpanzees and bonobos are the closest living relatives of humans, having a last common ancestor about 7 million years ago. Humans and their ancestors must have evolved in parallel to the African apes. However, with no fossil record, we know virtually nothing about African ape evolution.”

“There is a general tendency to think that unlike us, they have changed little since the last common ancestor,” they said. “However, this is almost certainly not true, and we need an ape fossil record to tell us when, where, and how the living apes evolved. Similarities and differences from the evolutionary history of humans will be ground-breaking discoveries.”

Pieces of the Puzzle

Paleoanthropologists have proposed possible explanations for the puzzle of the missing Late Miocene ape fossils. For one, the climate and geography changes in Africa may have not allowed the preservation of ape remains in this period. It’s also possible that the forest soil of ape habitats was too acidic for fossils to survive. Another factor may be that paleontologists have not looked in the right places for ape fossils.

But Late Miocene ape fossils are not entirely missing from Africa. [A partial lower jaw and 11 teeth from a now-extinct ape species](#) that lived about 10 million years ago was discovered in Nakali, Kenya in 2005 by an international team of paleontologists, which named it *Nakalipithecus nakayamai*.

The authors of an article describing this find write that it “suggests that it is highly probable that large-bodied hominoids survived through the Middle to Late Miocene in Africa, giving rise to the last common ancestor of African great apes

and humans.” (Hominoids are humans, their fossil ancestors, and the anthropoid apes, which include chimpanzees, bonobos, gorillas, and orangutans.)

[Another ape fossil find](#) by a different international team, is from the Chorora Formation near the southern part of the Afar rift, named *Chororapithecus abyssinicus*. The fossil is dated about 8 million years ago, and as [the journal Nature reports](#), “The attribution to the gorilla lineage looks all the more important as it helps constrain the split between gorillas and the lineage leading to hominins and chimpanzees, and suggests that this split occurred in Africa.”

A Hot Debate

The paleoanthropology community is not unified in its solutions to the missing ape evolutionary puzzle, and some think that it’s likely that apes made a round-trip, prompted by climate changes in the Miocene. In this view, apes originated in Africa and some dispersed to Eurasia for a few million years, where they evolved some proto-human characteristics, and then returned to Africa about 7 to 9 million years ago.

Asked about the Eurasian scenario, Foley and Mirazón Lahr replied: “This is a tricky one! The idea that the last common ancestor of the African apes and hominins was recent (in the geological sense, about 9 million years ago) is hotly debated. On the one hand, it is tempting to see a long line of ape evolution in Africa--there is a very rich fossil record of them. But on the other hand, fossils most similar to the African apes are found in Western Asia and the eastern Mediterranean.”

And here, the views of the collaborators diverged: Robert A. Foley felt that “this makes the ‘into Africa’ hypothesis more probable,” but co-author Marta Mirazón Lahr said, “the absence of later Miocene fossils in Africa--a big blank space--leaves the question open.”

Future fossil discoveries are likely to shed more light on some of the ghost apes and help solve the puzzle.

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Ahead Of The Debates, What Are The Myths And Realities Of Biden's Economy?



Robert Pollin ~ Photo: UMass Amherst

06-27-2024 ~ Progressive economist Robert Pollin weighs in on “Bidenomics” and the economic policies of Trump’s administration.

The economy is a top issue for many voters ahead of the 2024 presidential election. In a lengthy interview ahead of the first presidential debate between Joe Biden and Donald Trump, world-renowned progressive economist Robert Pollin offers a detailed and thorough assessment of the actual state of the U.S. economy and the effects of Biden’s economic policies. Pollin is a distinguished university professor of economics and co-director of the Political Economy Research Institute (PERI) at the University of Massachusetts Amherst. His books include *The Living Wage: Building a Fair Economy*; *Contours of Descent: U.S. Economic Fractures and the Landscape of Global Austerity*; and *Back to Full Employment*. He has been a consultant to, among other organizations, National Nurses United,

the American Postal Workers Union, the Washington State Labor Council, Labor Network for Sustainability and the BlueGreen Alliance.

C. J. Polychroniou: The economy will be one of the key issues in the 2024 U.S. election and may very well determine whether it will be Joe Biden who will be reelected as president or whether we will see Donald Trump return to the White House. As one would reasonably expect, of course, the two primary candidates for the 2024 presidential election have radically different takes on the state of the U.S. economy. Biden recently told NBC's "TODAY" that "America has the best economy in the world," while Trump claims that the economy is collapsing. Let's start by talking about "Bidenomics," the nickname for Biden's economics policies and plans. Is Bidenomics a real economic philosophy? If so, what does it encompass?

Robert Pollin: Bidenomics does certainly encompass an overarching framework for dealing with many of the most basic economic problems under U.S. capitalism today, while still, obviously, operating well within the boundaries of the existing capitalist social order.

The starting point for Biden's economic program is the aggressively pro-Big Business, pro-Wall Street and pro-rich neoliberal variant of capitalism that has dominated U.S. policy making for the past 45 years, under both Democratic as well as Republican administrations. Biden has been pushing out of this neoliberal straightjacket through initiatives that support working people, unions, a viable climate stabilization project and public sector-led economic development initiatives more generally. Of course, Biden himself has never been a leftist of any variety. He is a rather career politician and centrist Democrat. But he has allowed his administration to be moved leftward by the Bernie Sanders and Elizabeth Warren presidential campaigns and allied progressive labor unions and social movements throughout the country. These union and progressive groups deserve major credit for this accomplishment.

More specifically, what does it mean that Biden has been pushing out of the neoliberal straightjacket?

We can begin with Biden's first major economic policy initiative. This was the March 2021 American Rescue Plan. Its purpose was to prevent the onset of a full-scale economic collapse on the order of the 1930s Great Depression in the face of

the global COVID lockdown. The Biden rescue plan entailed a massive injection of government spending, at \$1.9 trillion (or about 9 percent of overall U.S. economic activity, i.e. GDP) at that time. This boosted overall spending in the economy, which, in turn, counteracted the sharp rise in unemployment and spending cuts by both households and businesses that resulted from the COVID lockdown.

It is true that two previous stimulus measures to counteract the COVID lockdown were enacted while Trump was still in office, in March and again in December 2020. (The December 2020 measure was passed after Trump had lost the 2020 election.) In combination, these two initiatives under Trump were actually larger than the Biden stimulus. But the composition of government stimulus spending was much more egalitarian under Biden. Biden's American Rescue Plan focused on direct stimulus checks to households, providing funds for state and local governments to sustain their public health, education and public safety programs, the expansion of unemployment benefits, the protection of workers' pension plans, and expanding the tax credit program for low-income families with children. By contrast, [the stimulus measures under Trump](#) were heavily skewed to supporting businesses. Big corporations and Wall Street firms were at the front of Trump's handout line.

The Biden rescue plan, in combination with the prior Trump measures, did indeed prevent a 1930s-level economic collapse in 2021. Unemployment in the U.S. could well have risen to perhaps 15-20 percent in 2021. Who knows how severely the global economy could have unraveled from there? But this achievement by the Biden administration has gone mostly uncredited, given that it succeeded in preventing a calamity that did not happen, as opposed to advancing a positive economic breakthrough of some sort.

In terms of positive initiatives, for starters, the Biden administration has been, overall, more supportive of U.S. workers and the union movement than any U.S. administration since the New Deal under Franklin D. Roosevelt. This represents a 180-degree reversal from the Trump years. As one highly visible example, Biden himself was on the picket line in 2023 supporting the highly successful United Auto Workers (UAW) strike against Ford, GM and Chrysler/Stellantis. Biden has also vocally supported organizing efforts at, among other places, Starbucks, Tesla, Toyota and Amazon. More broadly, the U.S. Labor Department, National Labor Relations Board (NLRB) and even the Federal Trade Commission under Biden have also been strongly pro-worker on critical health and safety issues and

employees' rights at the workplace.

At the same time, Biden has not been fully consistent in supporting labor. Most notably, in 2022, he imposed a settlement to prevent a strike by U.S. railroad workers. This meant that [the new union contract](#) did not provide any paid sick leave for the workers, something many union leaders thought they could have won had Biden stayed with them. The power of capital prevailed in this case. Still [more organizing](#) is the only answer.

Relative to his Democratic and Republican predecessors during the neoliberal era, the Biden administration has also been active in advancing anti-monopoly policies, including lawsuits and other initiatives against Apple and Google, and through [blocking mergers](#) between Spirit and JetBlue Airlines, and between Kroger and Albertsons supermarket chains. These measures to counter giant corporations' market power also feeds into the Biden administration's efforts to control inflation. What has become clear over the past three years is that one major driver of overall price increases — i.e. inflation — has been what is now termed “greedflation.” Greedflation refers to giant corporations marking up prices and fattening profits. They get away with this because they dominate their respective markets. Antitrust policies are supposed to restrain such corporate greed. But prior to Biden, the enforcement of antitrust policies had been [feeble](#) for decades. More on this below.

Biden has also proposed significant tax increases on U.S. corporations and the rich, even while, unfortunately, these proposals have zero chance of passing in the Republican-controlled House of Representatives. These measures could go far to financing, for example, an extension of the Child Tax Credit program that was enacted as part of the March 2021 COVID lockdown stimulus bill. Before it expired, this short-term measure [cut child poverty roughly in half](#) in 2021, from roughly 10 percent to 5 percent of all children. It could continue to significantly improve living conditions for the poor and near-poor in the U.S. if it were [renewed](#), as Biden has proposed. By contrast with the fate of Biden's progressive tax proposals, the huge tax cuts for and the rich that Trump proposed soon after he took office in 2017 did indeed become law within months. Trump has promised more of the same if he gets reelected. Big capital and [billionaires](#) are [openly salivating](#) at the prospect.

Both the climate-focused and broader public investment-led features of Biden's

agenda are best represented by three initiatives that Biden did manage to get enacted into law in 2022-2023: the Inflation Reduction Act (IRA), Bipartisan Infrastructure Law (BIL) and the CHIPS and Science Act. These are measures to advance a green energy transition, infrastructure and semiconductor manufacturing in the U.S. In combination, these programs are designed to support about \$300 billion per year (about 1.2 percent of current GDP) in new investments, with clean energy investments amounting to about \$100 billion per year, or one-third of total investment spending coming from these measures. At this level of new investment spending, these programs would generate around [3 million jobs per year](#), equal to about 1.8 percent of the current overall U.S. workforce.

Despite its name, the IRA was never actually focused on inflation control. Rather, it is the most ambitious climate stabilization program ever enacted in the U.S. The origins of the IRA trace back directly to the work of committed and effective Green New Deal activists throughout the U.S., such as those in the Sunrise Movement, 350.org, the Working Families Party, the Labor Network for Sustainability and the BlueGreen Alliance. Their organizing efforts were then embraced by members of Congress, including (among others) Representatives Alexandria Ocasio-Cortez and Pramila Jayapal, and Senators Edward Markey and Bernie Sanders. The version that Biden got enacted was far less ambitious than what had come out of the Green New Deal movement, and is, by itself, not close to adequate for achieving a zero CO² emissions global economy by 2050 that is needed to stabilize the global average temperature within a reasonably safe range. But the IRA has nevertheless induced [a huge boost in investments](#) — and resulting job creation — in solar and wind power, battery production and electric vehicles.

One of the biggest concerns tied to the Biden climate agenda is that the policies are designed to explicitly support U.S. producers over foreign firms. This is true even though, at least at present, foreign firms — in particular Chinese firms — can produce solar panels, electric vehicles and rechargeable batteries at much lower costs and higher quality than U.S. producers. The Biden administration is fighting to enable domestic U.S. firms to compete effectively here, and to support job creation and community development through a U.S. economy-centered green transition. In my view, it isn't obvious how best to balance the domestic versus the global goals during the green transition. But at the very least, the Biden

program is moving a green transition program forward in the U.S. Trump has vociferously promised, over and over again, to shut this down entirely. The emerging far right parties in Europe are aligned with the Trump position.

Is there a disjunct between economic facts and perceptions right now in the U.S. How have Biden's policies actually affected the labor market?

The polling evidence on people's perceptions about the economy are confusingly mixed. Thus, according to the most recent polls, most people respond that their own personal economic circumstances are in good shape. Most even say that conditions are good overall in their home states. But a [majority](#) do also still respond that, overall, the U.S. economy is in bad shape.

This pattern has been termed a "vibecession" — that people have a sense that the overall U.S. economy is in bad shape even while they themselves are fine, and even when, objectively, overall economic conditions, by standard measures, are indeed positive relative to the previous 50 years under neoliberalism. To cite now just the most basic relevant measures, the official U.S. unemployment rate, at 3.6 percent for 2023 and 3.8 percent for the first five months of 2024, is [lower](#) than at any comparable period over the past 54 years. The expansion of job opportunities has been across the board, in all economic sectors. Average real wages — that is, what you can buy with your paycheck, after adjusting for inflation — have also gone up across the board for the past 18 months, if only by [about 1 percent](#).

I do need to emphasize that I am speaking in relative terms about the good economic conditions under Biden. Over his three years in office, Biden has certainly not reversed 50 years of pro-Big Business, anti-working-class policies under neoliberalism. As just one indicator, the average real wage — i.e. how much your wage can purchase, after controlling for inflation — was in 2023, at [\\$28.90](#), almost exactly what it was in 1973. This is despite average labor productivity — what the average worker produces in a day — has more than [doubled](#) since 1973. This \$28.90 average real wage today is also below a living wage standard throughout all U.S. regions, as measured by the [MIT Living Wage Calculator](#).

The MIT Living Wage Calculator defines the "living wage" as "the minimum income standard that, if met, draws a very fine line between the financial independence of the working poor and the need to seek out public assistance or suffer consistent and severe housing and food insecurity." According to this

measure, the \$28.90 average real wage nationally is 10-12 percent below a living wage for a one adult/one child family in Alabama, Mississippi, South Dakota and West Virginia, and nearly 40 percent below a living wage for the same family type in California, Connecticut and New York. Meanwhile, over the same 50-year period since 1973, average CEO pay has increased by [between 13- to 20-fold](#), depending on the specific measure.

What these figures show is that the struggle to reverse neoliberalism is a long-term project. Building a strong union movement is the single most important fight that needs to be won. On balance, the Biden administration has certainly been supportive. But, as is always true, the most critical work needs to be done by committed and effective organizers and working people themselves.

What about inflation, which seems to be a problem for Biden's campaign? The Consumer Price Index rose 3.3 percent year over year in May, according to the Labor Department. Is inflation really a problem, and if so, why?

The current level of overall inflation, at 3.3 percent — meaning that the price of an average basket of consumer goods increased by 3.3 percent over the past year — is not a problem in itself. Indeed, it is remarkable that inflation has come down from the 2022 peak of 8 percent without the economy having gone through a recessionary ringer, much less a full-scale depression.

But there are certainly problems associated with inflation in the U.S. economy today. This begins with the Federal Reserve's inflation control policies. The Fed is clinging to the proposition that U.S. inflation must come down still further, to 2 percent. The Fed holds this position, [despite](#) the fact that, for the last 60 years, U.S. economic growth has been consistently higher on average when inflation is in the 3-5 percent range, as opposed to being 2 percent or below. The Fed is therefore holding the interest rate that it controls for policy at a very high 5.3 percent rate in an effort to slow the economy and raise unemployment. In the Fed's view, this is the only reliable path for getting inflation down to 2 percent and keeping it there.

In short, the Fed's current high interest rate policy is completely unnecessary, but the Fed nevertheless persists. The question then is: Why does it persist? My UMass and PERI coworker Jerry Epstein has provided [the most straightforward answer](#), many times over. That is, the low inflation rate, at 2 percent or less, is

actually best for Wall Street profits, even while it means higher unemployment or lower incomes for working people.

Another reason why inflation is a problem now is that we are still living with some aftereffects of the high inflation spike after COVID lockdown conditions were lifted. The 8 percent inflation rate in 2022 was due to the post-COVID supply shortages and heavy price markups that corporations were able to impose once lockdown conditions began lifting. This is where “greedflation” enters the story. On average, [a gallon of gasoline](#) went from \$2.23 in March 2020 to \$4.93 in June 2022. A [dozen eggs](#) went from \$1.53 in March 2020 to \$4.82 in January 2023. Buying a [used car](#) went from about \$22,000 in June 2020 to \$31,000 in June 2022. The fact that inflation has since come down to our current 3.3 percent rate doesn’t mean that prices will have returned to their pre-COVID levels. It just means that prices have stopped rising so fast.

Some prices have actually fallen. As of June 10, a gallon of gasoline is averaging \$3.42, a nearly 30 percent decline relative to the January 2023 peak. A dozen eggs are now at \$2.79, 44 percent below the January 2023 peak. Average used car prices are currently at about \$27,000, 13 percent below their 2022 peak. But for the prices of the full basket of consumer goods to fall — i.e. for there to be an overall *deflation* as opposed to our current mild inflation — would almost certainly require a recession. That is, unemployment would have to increase to well above the current 3.8 percent rate. Working people would then have less money in their pockets and more economic insecurity. Consumer spending would fall. Businesses would then face the prospect of scaling back their operations or shutting down altogether. In short, not a pretty picture.

As it is, the Fed’s high interest rate policy has raised the costs of mortgage borrowing, which in turn has [pushed up housing prices generally](#). The share of households becoming delinquent on their credit card debt has also been rising over the past two years with rates on credit card debt also having [risen](#).

Republicans claim that Biden’s spending is a danger to the U.S. because it has added more than \$6 trillion to the federal debt during the first three years of his administration and will probably add another \$1.5 trillion in the final year. U.S. government debt now stands at over \$34 trillion (and growing). Is Biden an extreme spender? I’d like your comments on this, and on whether the federal debt, which now stands at over \$34 trillion, is in danger of reaching unsustainable

levels.

The U.S. government's debt level is now high, at nearly \$35 trillion. But let's break down this seemingly astronomical figure. First, we have to recognize that about 20 percent of this total is held by various federal government agencies, including the Federal Reserve. So, what the federal government actually owes outside of its own agencies is around [\\$28 trillion](#).

True, \$28 trillion does still sound gigantic. But is it? The relevant metric is, "*compared to what?*" Twenty-eight trillion dollars amounts to about 95 percent of current U.S. GDP. By comparison, in 2019, just before COVID, this measure of government debt was significantly lower, at 77 percent of GDP. Further, in 2007, before the Wall Street financial crisis and subsequent global Great Recession, this measure of U.S. government debt was at 35 percent of GDP. So, there has definitely been a sharp increase in federal indebtedness relative to the size of the overall economy during the past 15 years.

However, the most relevant measure of the federal government's debt burden is how much the government needs to pay out in interest every year on this debt. Just like, when we take on a mortgage to buy a house, the most relevant consideration is not the overall size of the mortgage, but how large will be our monthly payments relative to our family's income. Here the relevant figure had actually been historically low for 15 years, up until the Fed started raising interest rates in 2022. Thus, as of 2021, the government's annual interest payments as a share of GDP were at [their lowest point since the 1950s](#), at 2.4 percent of GDP. This interest payment burden, moreover, was half the 4.8 percent share of GDP that the government was paying per year in interest at the end of Ronald Reagan's presidency.

This historically low interest payment burden was due to the low interest rates at which the U.S. government was able to borrow, starting with the 2007-09 financial crisis and continuing until 2021. But following the Fed's policy of sharply raising interest rates in 2022, the government's annual interest payments have risen to 3.5 percent of GDP. This indeed is a big jump from the 2.5 percent share only 2 years prior. In today's economy, it amounts to a \$300 billion annual increase in the government's interest payments. But 3.5 percent of GDP in annual interest payments today still remains well below the nearly 5 percent peak figure delivered by Reaganomics. I don't remember any Republicans declaring that

Ronald Reagan had caused a fiscal crisis.

In short, there is no federal government fiscal crisis at present, in that the government can, as needed and without question, cover 3.5 percent of GDP in annual interest payments. The only “extreme spending” under Biden was done in 2021 to prevent a full-scale economic collapse during the COVID lockdown. Trump injected comparable levels of emergency spending into the economy over 2020, the only difference being that Trump’s COVID bailout policies were also designed to make the rich richer.

In our post-COVID economy, a major source of the federal government’s current deficits is the ongoing impact of the tax cuts that were enacted under Trump in 2017. Naturally, these Trump tax cuts were designed as yet another vehicle for serving the rich. Thus, the richest 1 percent of households saved an average of roughly \$55,000 per year in taxes due to [Trump’s 2017 tax cuts](#), while the savings for the lower 20 percent of households averaged \$100. Overall, the 2017 Trump tax cuts have meant an average of [nearly \\$200 billion a year](#) in foregone government revenue. This amounts to fully two-thirds of the increase in the government’s interest payments since 2022.

Trump has, of course, made clear that he intends to shower more tax breaks on the rich if he returns to the White House in 2025. Biden has made clear that he wants to raise taxes on the rich and large corporations.

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Air Pollution Is Killing Millions And Rising Exponentially—A Shift In Agriculture Can Solve It



Jimmy Videle ~ Source: YouTube

06-27-2024 ~ *We must find a better way to prevent land use from changing.*

In 1958, geochemist [Charles David Keeling](#) set up the Mauna Loa Global Monitoring Laboratory in Hawaii, which measured carbon dioxide (CO₂). Keeling believed that CO₂ levels were rising and wanted to prove it. Mauna Loa was a perfect location to obtain precise readings since it was located at an elevation of more than 13,000 feet in the middle of the Pacific Ocean. By 1959, the level of CO₂ was [316 parts per million volume \(ppmV\)](#). Since then, the curve has seen an [exponential rise](#). As of May 2024, the amount of CO₂ in the atmosphere had risen to more than [426 ppmV](#).

It has been [more than 4 million years](#) since CO₂ levels were as high as today. “[The] CO₂ levels are now comparable to the Pliocene Climatic Optimum, between 4.1 and 4.5 million years ago, when they were close to, or above 400 ppm. During that time, sea levels were between 5 and 25 meters higher than today, high enough to drown many of the world’s largest modern cities,” [stated](#) a report by the National Oceanic and Atmospheric Administration.

These pollution levels are undoubtedly human-caused and have primarily resulted from [burning](#) fossil fuels, deforestation, and land-use change by industrial agriculture. In designing our society from an anthropocentric point of view (prioritizing humans above all other species), we have not only neglected but also harmed the Earth’s natural systems. To maintain a sustainable environment, we must adopt an eco-centric point of view that prioritizes the intrinsic value of all living things and preserves the ecological balance.

The Perfect Balance

Carbon dioxide gives our planet life. All living plants need it, converting it into an energy source. They assimilate carbon and expel the oxygen that all faunal beings require. When humans and animals breathe in oxygen, they exhale carbon dioxide, a greenhouse gas (GHG) that traps heat. Other gases that heat the atmosphere include methane (CH₄) and nitrous oxide (N₂O).

If we were to look back 1 million years when humans were among the least populous species, and wild fauna was grazing, stomping, and climbing in grasslands and forests, the CO₂ from the plant decomposition and respiration of

animals, the CH₄ from the belching, flatulating, and manure composition of ungulates, and N₂O would cycle naturally. The CO₂ levels were [between 200 and 280 ppm](#) “during the more recent ice ages”—perhaps the perfect amount to support abundant life. This ideal balance was in place for around [800,000 years](#).

As humans began to dominate the planet—killing large animals, cutting down forests, farming grasslands, and paving the natural world for our benefit—CO₂ levels began to climb at a torrid pace from 1950 onward.

Through our actions, we are producing so much extra CO₂, CH₄, and N₂O that all the natural mechanisms for carbon sequestration are being compromised. Instead of carbon cycling, it bounces back into the atmosphere and creates a gaseous ceiling (the “[greenhouse effect](#)”). The sun’s rays pass through, but the heat is trapped and filters through more slowly. The more these heavy gases remain in the atmosphere, the more heat is trapped, causing the Earth to warm.

“Human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming, with global surface temperature reaching 1.1 degrees Celsius above 1850-1900 in 2011-2020,” according to scientists who worked on the International Panel on Climate Change’s [Synthesis Report 2023](#). “Global greenhouse gas emissions have continued to increase, with unequal historical and ongoing contributions arising from unsustainable energy use, land use and land-use change, lifestyles and patterns of consumption and production across regions, between and within countries, and among individuals.”

“The Arctic has warmed nearly [four times faster](#) than the globe since 1979,” [stated](#) a 2022 article in the journal Nature. This is alarming and could help explain why scientists believe sea levels will rise. When the ice melts, more fresh water enters the ocean.

1.5 Degrees Celsius Is the Threshold

Climate scientists have expressed concerns over rising temperatures and emphasized that we must limit the increase in the Earth’s temperature to 1.5 degrees Celsius above preindustrial levels to prevent the worst impacts of climate change. A 2-degree Celsius increase would be catastrophic for the planet. Currently, [global efforts are insufficient](#) to prevent a climate crisis.

In the spring of 2024, I completed comparisons of monthly means against the 30-year normal in [Boileau, Québec](#). The results show that the 10-year average is 3

degrees Celsius above normal. This is what the northern part of North America is experiencing, causing significant climate disruption. The results are earlier springs, warming lows, and shifting the temperature range to what it is like hundreds of kilometers south of Boileau.

This resulted in the snowpack disappearing for the first time by the end of March; the impacts this will have on the floral and faunal community are entirely unknown as there is no earlier precedent. We are now in unknown territory. By the end of April 2024, the Earth had experienced its [11th month of record-breaking warmth](#).

According to NASA, 2023 was [the warmest year on record](#). The scorching temperatures and drought caused an unprecedented fire season in Canada, burning more than [18 million hectares](#) of area (44.5 million acres), which took a tremendous toll on Canada's wild flora and fauna. Lori Daniels, a professor in the Department of Forest and Conservation Sciences at the University of British Columbia, [recounted](#), "We were 10 to 15 degrees Celsius above normal in northern Canada, which... primes these [areas] for fire," according to CBC News.

The Earth will adapt and survive; it has done so for more than 4 billion years. Unfortunately for us and [countless other species impacted by our actions](#), adaptability will be pushed to the limits, and many will perish.

Shedding light on how grim the situation is, a September 2023 article by the Stanford Report [said](#), "The passenger pigeon. The Tasmanian tiger. The Baiji, or Yangtze river dolphin. These rank among the best-known recent victims of what many scientists have declared the sixth mass extinction, as human actions are wiping out vertebrate animal species hundreds of times faster than they would otherwise disappear."

Impacts to Human Health

We are paying the price for our actions through the severe health impacts we face from polluting the environment.

In 2019, there were more than [17 billion viral respiratory tract infections globally](#). The most common in humans include influenza, respiratory syncytial virus (RSV), parainfluenza, adenovirus, rhinovirus, and coronavirus. The COVID-19 pandemic, which [first emerged](#) in December 2019, was considered such a human health crisis that humanity went into a global shutdown. From the onset of COVID-19 in

2020 until April 13, 2024, there have been [704.7 million cases](#).

Studies have [shown](#) that pollution makes respiratory infections worse. In fact, [according](#) to the Environmental Protection Agency, “The combination of experimental and epidemiologic studies has provided evidence of a relationship between short-term (daily) exposures to particle pollution and several respiratory-related effects, including elevated morbidity, higher frequency of emergency department visits and hospital admissions, as well as excess mortality.”

According to a 2022 [Lancet report](#) on pollution and health, “pollution was responsible for 9 million premature deaths in 2015, making it the world’s largest environmental risk factor for disease and premature death.” The report further stated that while the number of deaths due to household air pollution and water pollution might have seen a decline, the number of deaths because of air pollution and toxic chemicals has only increased, with hardly any progress made by low-income and middle-income countries.

According to a 2018 [study](#) in Japan, humans may experience increased heart rate and blood pressure at CO2 exposure between 500 ppm and 4,000 ppm. The researchers warned that “short-term CO2 exposure beginning at 1000 ppm affects cognitive performances, including decision making and problem resolution.” Many indoor environments already see these higher levels.

Clearly, air pollution is a serious crisis that we should funnel more resources into.

Solutions for Clean, Fresh Air

Clean water, a healthy diet, and clean air are the most important things that sustain human life on Earth. Without them, our existence is in peril. It is still not too late to start taking remedial steps to prevent further destruction of the environment.

We must eliminate the burning of fossil fuels. Making [public transportation free](#) is one step in that direction. We also need to devise a plan for [transitioning](#) toward renewable energy.

We must stop cutting down forests for agriculture, forestry, or mining of so-called “essential minerals.” A new regulation should be put in effect immediately to provide a [moratorium on the development of all sacred lands](#). More trees will lead to more carbon sequestration, increasing oxygen levels. It is the most

straightforward biological math.

We must significantly reduce the emissions of CH₄ and N₂O in the atmosphere. [Methane](#) is the second largest, and [nitrous oxide](#) is the third-largest contributor to climate change after carbon dioxide. We can drastically decrease these emissions by changing agricultural activities (one of the [main drivers](#) contributing to GHG emissions) that support raising livestock and growing monoculture crops (like corn and soy). Converting to a 100 percent [plant-based agricultural system](#) that eliminates the use of domesticated animals, chemical fertilizers, pesticides, and herbicides will help mitigate the release of these greenhouse gases considerably.

Today's biggest epidemic is the exponential rise of CO₂-equivalent atmospheric emissions. With COVID-19, the world changed protocols within weeks of the outbreak. This shows that we *can* change today to stop the harm inflicted on the planet, the more than 8 billion humans, and countless other Earthlings. We need to realize that there is no bigger threat facing us currently.

By Jimmy Videle

Author Bio: Jimmy Videle is a farmer, naturalist, and researcher. He is the author of [The Veganic Grower's Handbook: Cultivating Fruits, Vegetables, and Herbs from Urban Backyard to Rural Farmyard](#) (Lantern Press, 2023) and the co-founder of [NAVCS-Certified Veganic](#). He is a contributor to the [Observatory](#). His writing has appeared in CounterPunch, Countercurrents, and LA Progressive, among others.

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New World, New Hope: The

Struggle For A Free Western Sahara Continues



Western Sahara - Map:
en.wikipedia.org

06-27-2024 ~ *The Sahrawi freedom movement Polisario continues the armed struggle against Morocco, which uses Israeli spyware and lures the West with trade opportunities to turn a blind eye to the occupation of Western Sahara. Many Sahrawis see new hope in a new multipolar world order that is not dominated by the United States and the West.*

Life under occupation is a constant struggle. This is continually expressed at the international media conference in a refugee camp in Western Sahara. The conference takes place from May 1-5 and is [organized](#) by the Sahrawi Union of Journalists and Writers (UPES).

Western Sahara is occupied by Morocco, a country where King Muhammad VI has [full control](#) over Morocco's armed forces, judiciary, and all foreign policy.

In Western Sahara, the Moroccan monarchy violates the human rights of the Sahrawi people. Children suffer from malnutrition, journalists are thrown in prison, and international observers are denied access to the occupied territories.

Morocco's colonization of Western Sahara has been going on since 1975; however, the occupation receives little attention from the international community. Through the occupation, Morocco offers trade opportunities to

Western companies while the Moroccan intelligence service uses Israeli spyware to monitor the Sahrawis.

But the revolutionary Sahrawi freedom movement—Polisario Front—is not giving up: In 2020, Polisario resumed its armed struggle against Morocco. The Sahrawis hope that a new world order, not dominated by the West, will open up new possibilities in the fight for a free and independent Western Sahara.

Occupied Land

The media conference takes place in Wilayah of Bojador, one of five Sahrawi refugee camps located in Algeria on the border with Western Sahara. Algeria has given the area to Polisario, which administers the refugee camps.

Thus, you could say that Western Sahara is divided into three areas. There are the occupied territories of Western Sahara, where Morocco is in power. There are the liberated areas of Western Sahara, where Polisario is in power. And then there are the refugee camps in Algeria, where Polisario is also in power.

People may have traveled from all over the world to attend the media conference. However, it is the participants from the occupied territories of Western Sahara who receive the most acclaim at the opening of the various debates. This is due to the harsh living conditions in the occupied territories.

“Today, many children suffer from malnutrition due to the occupation,” says Buhubeini Yahya, head of the non-governmental organization (NGO) Sahrawi Red Crescent (SRC), which operates in the occupied territories.

Problems with malnutrition are partly due to the fact that Morocco currently blocks Polisario’s access to the occupied territories, making the freedom movement unable to deliver humanitarian assistance to the local population.

Journalists and Activists

Sahrawi journalists—who want to cover malnutrition among children in the occupied territories, for example—are doing a job that can cost them dearly.

Bhakha*, who works as a journalist in the territories, knows this.

“My colleagues and I are trying to expose Morocco’s crimes. But several have been arrested, some have received 27 years in prison,” Bhakha says from the stage.

“Moroccan police kidnap journalists and confiscate our phones and cameras. Media people are having their bank accounts blocked and our websites are being cyberattacked,” he continues.

Bhakha says that in the occupied territories, Morocco is cracking down on activists who organize demonstrations and speak out against the occupation. According to him, activists have been “thrown off tall buildings” as punishment for protesting.

“The Moroccan authorities have intensified their spate of violations against pro-independence Sahrawi activists through ill-treatment, arrests, detentions, and harassment in an attempt to silence or punish them,” the NGO [Amnesty International](#) wrote in 2021.

In eight months, Amnesty had recorded “seven cases of torture or other ill-treatment, three house raids, two de facto house arrests and nine cases of arrests, detentions and harassment of individuals in relation to their peaceful exercise of their freedom of expression and assembly.”

Tough Prisons

Sukina can't hold back the tears. She is attending the media conference to talk about her brother Hussein, an activist from the occupied territories who has been thrown in prison for speaking out in favor of independence for Western Sahara.

“I find it very difficult to talk about how much my brother is suffering in prison,” says Sukina.

Next to Sukina is journalist Mustaffa, who himself was locked up in a Moroccan prison as a political prisoner because he reported on the Moroccan occupation. Mustaffa describes a harsh prison system where inmates live in “miserable conditions” with many diseases circulating.

According to [Prison Insider](#), a prison information platform, human rights organizations are concerned about Morocco's “massive use of torture and ill-treatment of prisoners in Morocco and Western Sahara, where political prisoners are numerous and are particularly vulnerable.”

Sukina says that her family has to go through a lot to even see her brother Hussein in the Moroccan prison where he is being held. Just getting to the prison can take more than a day.

“The prison is many kilometers away from my family’s home. We have been forced to walk so far that my mother is now suffering from a kidney disease. There is nowhere near the prison where we can stay overnight. We have to go back and forth on the same day,” she says.

Sukina continues, “Once we get there, it is not at all certain that the Moroccan prison guards will even let us see my brother. They have rejected us several times with mocking remarks.”

“And when they do let us meet with Hussein, it is always too short a meeting [and] under the supervision of the prison guards. My brother is not allowed to say a word about the conditions in the prison,” Sukina sighs.

Money Talks

At the media conference in the refugee camp, many local participants express frustration that the international community generally turns a blind eye to Morocco’s occupation of Western Sahara.

According to several experts on stage, the lack of focus is due to Morocco offering Western companies access to natural resources and other commercial opportunities in the occupied territories.

Here, European companies are [involved](#)—through imports, exports, or the provision of technical services—in phosphate mining, wind power projects, agriculture, and fishing.

The economic exploitation of Western Sahara without the consent of the Sahrawi people is in violation of international law. The Sahrawis have not accepted the economic activities in the occupied territories and do not receive a share of the profits.

In 2017, the Danish shipping companies Ultrabulk and Clipper were caught in a [political crossfire](#) when it emerged that the shipping companies were shipping cargo from occupied Western Sahara. Anders Samuelsen, then the Danish foreign minister from the neoliberal party Liberal Alliance, refused to intervene.

In this way, Western companies and governments are helping to maintain the Moroccan occupation of Western Sahara.

Connections to Israel

During the conference, there are repeated expressions of support for the Palestinians who are currently suffering from Israel’s genocide. All participants

stand up and observe a minute of silence in solidarity with Palestine.

In this way, one occupied people shows solidarity with another. The Sahrawis and the Palestinians are fighting against their respective occupying powers, who are collaborating with each other.

In December 2020, a month before his presidential term expired, Donald Trump [declared](#) that the United States now considered all of Western Sahara to be part of Moroccan territory. This is one of the decisions that current U.S. President Joe Biden has chosen not to change.

In exchange for the declaration, the United States demanded that Morocco [establish diplomatic relations](#) with Israel. Today, Morocco recognizes Israel as a state and Israel recognizes Morocco's sovereignty over Western Sahara.

It has also come to light that Morocco is using the Israeli spyware Pegasus to [spy on](#) Sahrawi human rights activists.

“Morocco uses Pegasus against all content related to Western Sahara,” says Hamada Salma, Minister of Information of Western Sahara.

Armed Struggle Resumed

Although most of the world ignores Morocco's oppression of the Sahrawis, the Sahrawis have not given up.

In 2020, the revolutionary freedom movement Polisario decided to resume its armed struggle against Morocco.

This happened after Morocco broke a long-standing ceasefire dating back to 1991. The ceasefire between Polisario and Morocco was initiated by the UN.

The ceasefire was based on an agreement that the UN would organize a referendum where the Sahrawis would vote on whether they wanted an independent Western Sahara or a Western Sahara integrated into Morocco.

Twenty-nine years later, the referendum had not materialized. And when Morocco broke the ceasefire on November 13, 2020, by [launching a military mission](#) against peaceful protesters, Polisario decided to resume the armed struggle.

During the media conference, Polisario soldier Barak Mamir talks about the armed resistance against Morocco. In different regions, the Polisario is attacking

Moroccan forces along the “Wall of Shame,” a 2,700-kilometer fortification built by Morocco across Western Sahara.

“Since November 13, 2020, we have carried out a total of 3,500 attacks,” says Barak Mamir.

Affecting the Economy

According to Barak Mamir, Polisario’s attacks against Morocco’s military have had a significant effect on the Moroccan economy.

“As a result of our attacks, Morocco has been forced to double its military budget. This means that the price of basic necessities for the average Moroccan has increased significantly,” he says.

In 2023, the pan-African news network Africanews reported that the price of vegetables in Moroccan markets was “almost as expensive as in some French supermarkets,” even though the minimum wage in France was five times higher than in Morocco.

“The Moroccan regime is doing everything it can to keep the cost of the conflict out of the public eye,” says Barak Mimir from the stage.

This also applies when Moroccan soldiers fall in battle.

Fighting for Freedom

“When a family in Morocco is informed that their son has been killed in action, they are told not to post anything about it on social media,” says Barak Mimir.

According to him, several Moroccan soldiers have also been prosecuted for choosing to flee instead of fighting the Polisario. Dozens of Moroccan soldiers have even [left the military](#) in opposition to the Moroccan monarchy.

This has happened even though the Moroccan military is armed with state-of-the-art military technology such as drones.

A Polisario soldier explains that there are significant differences between Moroccan and Sahrawi soldiers:

“The soldiers from Western Sahara know the country, and we fight for the freedom of our people. Moroccan soldiers, on the other hand, have not chosen to fight but have been forced to do so as part of their job.”

According to the soldier, this is one of the reasons why Polisario has managed to

break through the Wall of Shame, which is divided into a series of lines: barbed wire, dogs, a moat, the wall itself, 150,000 soldiers and 8 million landmines.

In one of the refugee camps is the Museum of Resistance, where visitors can see several of the tanks, artillery systems, and other weapons that Polisario soldiers have managed to take from the Moroccan army after breaking through the wall.

New World, New Hope

But for a revolutionary freedom movement, fighting against a Moroccan military power armed with modern weapons that have primarily been produced in the West is no walk in the park. Many Sahrawis have fallen in battle.

It's not that the Sahrawis want war either. The goal is to be able to live in an independent and peaceful Western Sahara, it is repeated several times at the media conference.

The new multipolar world order, where non-Western powers have more and more say, is seen by several participants at the conference as a positive development that can open the door for the liberation of Western Sahara.

Morocco has historically benefited from the unipolar world order, which for decades after the end of the Cold War in 1991 was dominated by the United States. This allowed Morocco to occupy Western Sahara without consequences.

But now a new world order is emerging, and it is making its presence felt in Western Sahara's neighborhood. Countries like Niger, Mali, and Burkina Faso have thrown out Western soldiers from the United States and France, respectively, to strengthen cooperation with Russia.

"New powers are emerging, more different countries are rising up. The multipolar world, where the U.S. does not dominate, will strengthen Western Sahara's struggle for liberation," says Syrian Mahmoud Al-Saleh, chairman of the Arab Committee of Solidarity with the Sahrawi People.

A Sahrawi journalist says that Polisario's struggle against the Moroccan occupation is receiving better coverage in non-Western media such as Russia Today, a state-owned Russian media that is also participating in this media conference.

"There is a long way to go before the international community becomes objective.

If you only had access to Western media, the world would see us as terrorists,” says the journalist.

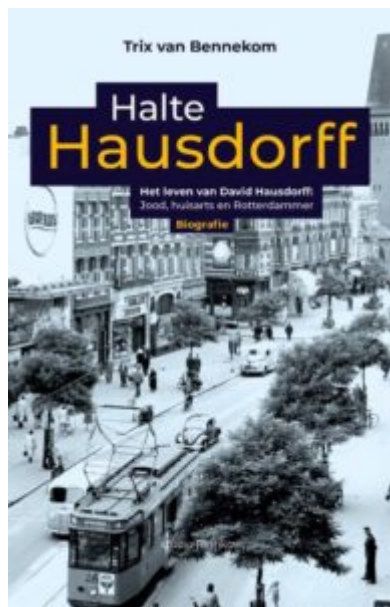
**Disclaimer: Some conference participants are referred to by first name only and names in the article may not be spelled correctly.*

By Marc B. Sanganee

Author Bio: This article was produced by [Globetrotter](#). Marc B. Sanganee is editor-in-chief of [Arbejderen](#), an online newspaper in Denmark.

Source: Globetrotter

Trix van Bennekom ~ Halte Hausdorff



06-24-2024 ~ *Het leven van David Hausdorff. Jood, huisarts en Rotterdammer.*

‘Sint-Petersburg, zondagmiddag 13 maart 1881’. Dat Trix van Bennekom de biografie van David Hausdorff begint met deze regel, illustreert haar aanpak. Een aanpak die we kennen van haar boek Abraham. Kroniek van een politieke dynastie (2018). De combinatie van een persoonlijke geschiedenis en de grote geschiedenis levert ook nu weer een bijzonder boek op.

Op die dertiende maart in 1881 kwam tsaar Alexander II bij een aanslag om het leven. Al kwamen de daders uit een revolutionaire groepering, de Nihilisten, de Joodse gemeenschap in Rusland kreeg de schuld. Drie jaar lang werden Russische Joden door volksmassa's mishandeld en vermoord. De eerste grote pogroms in de moderne tijd.

Vanuit Rusland en aangrenzende gebieden kwam een grote stroom vluchtelingen op gang. De meeste vluchtelingen wilden naar Amerika.

Rotterdam kreeg de bijnaam 'Warschau aan de Maas', zo veel mensen kwamen vanuit het Oosten in de hoop in te kunnen schepen naar het Gouden Land.

Tussen 1818 en 1914 verhuisden 2,5 miljoen Joden uit Oost-Europa naar de Verenigde Staten.

Ook een deel van de familie Hausdorff, woonachtig in Polen, dicht bij de Russische grens, besloot naar het Westen te gaan. Het geweld kwam steeds dichterbij.

Na eerst in Duitsland gewoond te hebben, gingen twee zonen Hausdorff in 1883 naar Rotterdam. Daar wordt op 2 november 1901 David Hausdorff geboren.

Het is verleidelijk om maar te blijven vertellen over geschiedenis die de achtergrond vormt voor het verhaal over deze huisarts. En dan moet je nog beginnen aan de verhalen over de Joodse gemeenschap in Rotterdam voor de oorlog, over de oorlogsjaren, over de onderduik van het gezin Hausdorff vanaf 1943, over de wederopbouw van diezelfde Joodse gemeenschap na de oorlog.

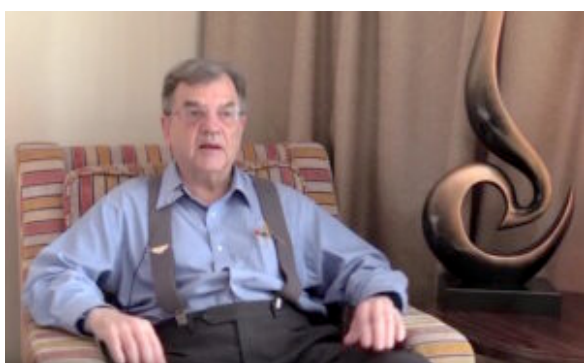
Wil je aan de hand van een citaat laten zien hoe Van Bennekom in één alinea de stemming in de Joodse gemeenschap vlak na de oorlog weet samen te vatten:

'De Duitse bezetter had in Nederland niet alleen meer dan 100.000 Joden de dood ingejaagd, ook het eeuwenoude Joodse leven was weggevaagd. Synagogen, ziekenhuizen, scholen, weeshuizen, bejaardenhuizen, bedrijven, woonhuizen, winkels; alles was in beslaggenomen en geplunderd, religieuze, sociale en culturele organisaties waren opgeheven. Waar te beginnen? En had het nog wel zin de Joodse gemeenschap opnieuw op te bouwen? De anti-Joodse stemming die in de eerste maanden na de bevrijding in Nederland heerste, deed het ergste vrezen voor de toekomst: zouden Joden niet altijd tweederangsburgers blijven?'

Maar verstandiger is het om nu maar gewoon te stoppen en te zeggen: lezen!

Studio Rashkov, Rotterdam, 2024

Modern (Mis)interpretations Of Clean Slates



Michael Hudson

06-19-2024 ~ *Today's creditor-oriented ideology depicts the archaic past as much like our own world, as if civilization was developed by individuals thinking in terms of modern orthodoxy.*

Why were Clean Slates so important to Bronze Age societies? From the third millennium in Mesopotamia, people were aware that debt pressures, if left to accumulate unchecked, would distort normal fiscal and landholding patterns to the detriment of the community. They perceived that debts grow autonomously under their own dynamic by the exponential curves of compound interest rather than adjusting themselves to reflect the ability of debtors to pay. This idea never has been accepted by modern economic doctrine, which assumes that disturbances are cured by automatically self-correcting market mechanisms. That assumption blocks discussion of what governments can do to prevent the debt overhead from destabilizing economies.

The Cosmological Dimension of Clean Slates

Mesopotamia's concept of divine kingship was key to the practice of declaring Clean Slates. The prefatory passages of Babylonian edicts cited the ruler's

commitment to serve his city-god by promoting equity in the land. Myth and ritual were integrated with economic relations and were viewed as forming the natural order that rulers were charged with overseeing; in this context, canceling debts helped fulfill their sacred obligation to their city-gods. Commemorated by their year-names and often by foundation deposits in temples, these amnesties appear to have been proclaimed at a major festival, replete with rituals such as Babylon's ruler raising a sacred torch to signal the renewal of the social cosmos in good order—what the Romanian historian Mircea Eliade called “the eternal return,” the idea of circular time that formed the context in which rulers restored an idealized *status quo ante*. By integrating debt annulments with social cosmology, the image of rulers restoring economic order was central to the archaic idea of justice and equity.

(Mis)Interpreting the Meaning of 'Freedom'

The Hebrew word used for the Jubilee Year in Leviticus 25 is *dêror*, but not until cuneiform texts could be read was it recognized as cognate to Akkadian *andurarum*. Before the early meaning was clarified, the King James Version translated the relevant phrase as: “Proclaim *liberty* throughout all the land, and to all the inhabitants thereof.” But the root meaning of *andurarum* is to move freely, as running water—or (for humans) as bondservants liberated to rejoin their families of origin.

The wide variety of modern interpretations of such key terms as Sumerian *amargi*, Akkadian *andurarum* and *misharum*, and Hurrian *shudutu* serve as an ideological Rorschach test reflecting the translator's own beliefs. The earliest reading was by Francois Thureau-Dangin[1], who related the Sumerian term *amargi* to Akkadian *andurarum* and saw it as a debt cancellation. Ten years later Schorr (1915) related these acts to Solon's *seisachtheia*, the “shedding of burdens” that annulled the debts of rural Athens in 594 BC. The Canadian scholar George Barton[2] translated Urukagina's and Gudea's use of the term *amargi* as “release,” although the Jesuit Anton Deimel[3] rendered it rather obscurely as “security.”

Maurice Lambert[4] initially interpreted Urukagina's *amargi* act as an exemption from taxes, on the ground that most of the debts being annulled were owed to the palace. His subsequent 1972 discovery of Enmetena's kindred proclamation dating some fifty years earlier led him to see *amargi* as signifying a debt cancellation. F. R. Kraus[5] had followed this view in 1954, and greatly elaborated

his survey of Babylonian proclamations in his 1984 survey of rulers “raising the torch” to signal debt cancelations.[6]

In America, Samuel Kramer (*History Begins at Sumer* [New York, 1959]) interpreted these acts as tax reductions. In a letter to *The New York Times* the day President Reagan took office in 1981, he even urged the president-elect to emulate Urukagina and cut taxes! The term *amargi* became popular with U.S. libertarians seeking an archaic precedent for their tax protests.

Kramer[7] further belittled Urukagina’s reforms as soon “gone with the wind,” being “too little, too late,” as if they were failures for not solving the debt problem permanently. In a similar vein Stephen Lieberman[8], deemed Babylonian debt cancelations ineffective on the ground that they kept having to be repeated: “The need to repeat the enactment of identical provisions shows that the *misharum* provided relief, but did not eliminate the difficulties which made it necessary...What seems to have been needed was reform which would have eliminated all need for such adjustments.” He did not suggest just what could have created an economy free of credit cycles.

A Practical Solution

Mesopotamian rulers were not seeking a debt-free utopia but coped pragmatically with the most adverse consequences of rural debt when it became top-heavy. Usury was not banned, as it would be in Judaism’s Exodus Code, but its *effects* were reversed when the debt overhead exceeded the ability to pay on a widespread basis. These royal edicts retained the economy’s underlying structure. The palace did not deter new debts from being run up, and kept leasing out land to sharecroppers, who owed the usual proportion of crops and were obliged to pay the usual interest penalties for non-delivery.

Igor Diakonoff[9] emphasized that “the word *andurarum* does not mean ‘political liberation.’ It is a translation of Sumerian *amargi* ‘returning to mother,’ that is, ‘to the original situation.’ It does not mean liberation from some supreme authority but the canceling of debts, duties, and the like.

The Assyrian term “washing the tablets” (*hubullam masa’um*[10]; may refer to dissolving them in water, akin to breaking or pulverizing them. Likening it to the Babylonian term meaning “to kill the tablet,” Kemal Balkan[11] explained that the idea was to cancel grain debts by physically destroying their records. Along more

abstract lines, Raymond Westbrook[12] likens the idea of “washing” to a ritual cleansing of the population from inequities that would displease Sumerian and Babylonian patron deities. Urukagina’s edict thus was held to have cleansed Lagash from the moral blemish of inequity.

Some Anachronistic Creditor-Oriented Views of Clean Slates

Instead of enforcing debt contracts at the cost of social and military instability, Sumer and Babylonia preserved economic viability via Clean Slates. Today’s creditor-oriented ideology denies the success of Clean Slates overriding free-market relations. It depicts the archaic past as much like our own world, as if civilization was developed by individuals thinking in terms of modern orthodoxy, letting interest rates be determined simply by market supply and demand, duly adjusted for risk of non-payment.

Modern economic theory assumes that debts normally can be paid, with the interest rate reflecting the borrower’s profit. The implication is that the fall in interest rates from Mesopotamia to Greece and Rome resulted from falling profit rates and/or the greater security of investment. In this view, debt cancellations would only have aggravated debt problems, by increasing the creditor’s risk and hence the interest rate.

Modernist assumptions distract attention from what actually happened. No writer in antiquity is known to have related interest rates to profit rates or risk, or to the use of seeds or breeding cattle to produce offspring. We may well ask whether it was fortunate for the survival of Babylonian society that its rulers were not “advanced economic theoreticians” of the modern sort. If they had not proclaimed Clean Slates, creditors would have reduced debtors to bondage and taken their lands irreversibly. But in canceling crop debts, rulers acknowledged that the palace had taken all that it could without destroying the economy’s foundations. If they had demanded that debt arrears be made up by cultivators forfeiting their family members and land rights to royal collectors (who sought to keep debt charges on the crop yield for themselves), the palace would have lost the services of these debtors for *corvée* labor and in the armed forces to resist foreign attack.

Markets indeed became less stable as economies polarized in classical antiquity. Yet it was only at the end of antiquity that Diodorus of Sicily (I.79) explained the most practical rationale for Clean Slates. Describing how Egypt’s pharaoh Bakenranef (720-715) abolished debt bondage and canceled undocumented debts,

Diodorus wrote that the pharaoh's guiding logic was that:

“the bodies of citizens should belong to the state, to the end that it might avail itself of the services which its citizens owed it, in times of both war and peace. For he felt that it would be absurd for a soldier, perhaps at the moment when he was setting forth to fight for his fatherland, to be haled to prison by his creditor for an unpaid loan, and that the greed of private citizens should in this way endanger the safety of all.”

That would seem to be how early Mesopotamian rulers must have reasoned. Letting soldiers pledge their land to creditors and then lose this basic means of self-support through foreclosure would have expropriated the community's fighting force—or led to their flight or defection. By the 4th century BC, the Greek military writer known as Tacticus recommended that a general attacking a town might promise to cancel the debts owed by its inhabitants if they defected to his side. Likewise, defenders of towns could strengthen the resistance of their citizens by agreeing to annul their debts.

This emergency military tactic no longer reflected a royal duty to restore economic self-reliance as a guiding principle of overall order. What disappeared was the relief of debtors from their obligations and reversal of their land sales or forfeitures when natural disasters blocked their ability to pay or after a new ruler took the throne. The oligarchic epoch had arrived, abolishing any public power able to cancel the society-wide debt overgrowth.

[1] *Les inscriptions de Sumer et d'Akkad*, 1905, pp. 86-87

[2] *The Royal Inscriptions of Sumer and Akkad*, 1929.

[3] *Sumerische Tempelwirtschaft der Zeit Urukaginas und seiner Vorgänger*, 1930, p. 9.

[4] “Les ‘Reformes’ d’Urukagina,” *La Revue Archéologique* 60, 1956, pp. 169-184..

[5] Ein Edikt des Königs Ammisaduqa von Babylon (SD 5, [Leiden]).

[6] Fritz Rudolph Kraus, [Königliche Verfügungen in altbabylonischer Zeit](#), 1984.

[7] Samuel Noah Kramer *History Begins at Sumer* 1959, p. 49.

[8] Stephen J. Lieberman “Royal ‘Reforms’ of the Amurrite Dynasty,” *Bibliotheca Orientalis* 46, 1989, pp. 241-259.

[9] “The City-States of Sumer” and “Early Despotisms in Mesopotamia,” in *Early Antiquity* 1991, pp. 67-97, p. 234.

- [10] A. Kirk Grayson *Assyrian Royal Inscriptions: From the beginning to Ashur-resha-ishi I*, Volume 1 of the Records of the Near East Harrassowitz, 1972, p. 7.
- [11] "Cancellation of Debts in Cappadocian Tablets from Kultepe," *Anatolian Studies Presented to Hans C. Guterbock*, 1974, pp. 29-36, p. 33.
- [12] Raymond Westbrook, "Social Justice in the Ancient Near East," in Morris Silver and K. D. Irani, eds., *Social Justice in the Ancient World*, 1995, pp. 149-163.

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