

**TIMES  
EVOKE**

THE PAST IS ALWAYS PRESENT

In the restless, breathless lives we lead, often, gentle reader, we think our moment — the here and now — is the only one that matters. That is the hallmark of 'modernity', an octopus-like epoch which, with its tragedies and comedies, poverities and luxuries, makes us sink into the present and become amnesiac of the past. Yet, the past is always present, its shadows colouring every corner of our lives.

Interestingly, this extends to our collective, shared existence as experienced in the Anthropocene or the era of indelible human impacts on Earth — we now live amidst intense planet-warming emissions, carbon dioxide releases in 2024 rising to a record 41.6 billion tonnes, the hottest year in history featuring 40% ocean acidification, global tropical forest losses of 6.7 million hectares — twice that of 2023 — and biodiversity facing a staggering 73% decline. The irony of all these losses is our obliviousness to them — even as Earth heats, expressing its state in wildfires and storms, we continue burning more fossil fuels, releasing pollutants and choking natural cooling mechanisms.

We can do this by wilfully turning our backs on a better future — and a wiser past. The roots of the Anthropocene are watered by our current continuous thirst for mobile phones and vinyl dolls — but they lie deep in time. Today's climate crisis can be traced to the first contact between coloniser and colonised — the former came seeking rich materials and hardy labour they could exploit for their own gain. The latter found themselves embattled and robbed, their forests destroyed, rivers dammed, jungles made into monocropping plantations, lands torn apart to extract gold, coal and diamonds. Carried off to the West, these materials were poured into beautiful streets, grand theatres, slick trains, imposing universities and awe-inspiring industries which continue to enrich this part of the world. No wonder the West wasn't satisfied with a little colonialism — it had to turn this into a vast imperial chase, clashing murderously with its own neighbours for lands far away. The minerals, fuels and farm products thus robbed by imperialism, which were these arrogantly like Kohinoors, were poured into factories that never sleep, emitting pollutants stored for millennia — thus began the climate crisis.

However, there are solutions. As Times Evoke's global experts emphasise, a knowledge of history — our story — is key to understanding the way forward. Whether it is the saga of an alternative but awry vision, like the former USSR, or tales of ecological resilience from ancient Mesoamerica, there are lessons to be learned in every corner of our past. Join Times Evoke in journeying through times gone — they can help better times to come.

# 'The Soviet Union rejected capitalism — yet, it caused huge carbon pollution'

Andy Bruno is Stephen F. Cohen Chair of Russian History at Indiana University Bloomington. Speaking to Srijana Mitra Das at Times Evoke, he discusses Soviet environmental history — and why this matters today:

**What is the core of your research?**  
■ My work studies human-environmental relationships that occupied the Soviet Union, going back into imperial Russia and forward to this day.

**Can you outline Kamchatka's earthquake?**  
■ The Kamchatka region is very far to the east. It's an extremely volcanic area, sparsely populated and difficult to access. It's quite natural in terms of its ecosystems. Russia isn't necessarily known for earthquakes — so, this fault off the coast of Kamchatka is interesting.



**You've studied Tsarist Russia becoming the USSR — did views about nature also change?**

■ There were continuities and disruptions. Imperial Russia had a strong modernising impulse, a desire to conquer nature and put it under human economic dominance. However, the Soviet project was framed as a departure from capitalism — it aimed to get rid of exploitations Soviet leaders believed existed in the Tsarist era. There were two impulses — the first was the Soviet desire to conquer the natural world. The second was to establish a balance where Soviet society could have a lot in common with what we call 'sustainable development' now — here, humans could somehow take from nature while having it flourish as well by being rational agents.

**What were interactions with industrialising places like the Kola Peninsula like?**  
■ Other than a few Sami groups, Kola hadn't had people for millennia. It had less than 10,000 people at the 19th century's start — yet, it became the most built-up Arctic region in the world during the Soviet era. Nuclear power



**THE HEAT IS ON:** Russia faces a dilemma — while it contributes to global warming through fossil fuels, Siberia is heating up faster than many other parts of the world

plants, hydroelectric facilities, copper mining, phosphates, rare earths, etc., developed. An entire militarised infrastructure took root — Kola was almost a microcosm of the developmentalist vision of the Soviet Union because you had a place with very little going on, where they developed a particular socialist type of industry.

**Were there similarities and differences on the environment between the Soviet Union and the United States as they grew?**  
■ They both put growth and the economic use of nature first — conservation was a second-tier priority. Hence, they both went through the great acceleration of ramped-up production and environmental impacts post-WWII. They both thus enter the Anthropocene as active agents. However, there was a rationale behind

the Soviets that gave them a different texture. Everything, from the nature preserves across the USSR, which were more about science than tourism compared to the US, to environmentalist discourse becoming widespread in the 1960s-1970s, shows how ecology was thought about. There was a good deal of embracing nature rhetorically — but also not necessarily embracing the strictest conservation measures. The Soviet Union had rigorous environmental laws — which were often not enforced. Everyone was supposed to help nature, an aim propagandised all over the place — but very little happened to people who didn't follow that. This was different from the polarised debate on environmentalism which emerged in the United States.

**ON THIN ICE**

**Did Chernobyl have a legacy?**  
■ There was a major change with it — they first tried to keep it secret, then, it became open to the public. Chernobyl single-handedly helped to turn the world away from nuclear energy for a while. It also led to many exposures. There had been nuclear disasters earlier, like 1957's explosion in Mayak — those were kept secret. Of course, Chernobyl happened in 1986, shortly before the Soviet Union collapsed in 1991. It seems impactful — but, if the USSR survived, it might have been more of a blip.

**Can you tell us about animals in Russia?**  
■ For a long time, there's been a fascination with various animals, from bears,

which have a common connotation for Russia, to birds in Siberia, tigers, reindeer, etc. There's also been hunting culture in the Tsarist and Soviet eras. Overall though, the landmass was so big, there were places different species could remain relatively unperturbed by humans.

Today, the state focuses its conservationist energies on 'charismatic megafauna' — it decides, for instance, 'We're going to save the tiger' and creates a reserve. This shows an environmental politics but one less threatening to economic interests because these activities are in distant locations. That happened in the Soviet Union too — many activist efforts were around things like shaming poachers and not criticising big polluting factories.

**What role do indigenous groups play?**  
■ Some have a voice with organisations speaking for them. Sometimes, those are captured by the state but they still have



**LIFE AFTER UKRAINE:** Russia is castigated for sending out 'ghost fleets' of oil

representatives. During the Soviet period, there was this dual sense of thinking, 'We must uplift these people but also modernise them.' Earlier, the Soviet authorities didn't look at indigenous populations as an enemy but then, their politics forced them into collective farms, reduced their cultural autonomy and, in the 1930s, oppressed some.

Through these experiences, indigenous groups developed different politics — some aligned with the Soviet system, feeling, 'Well, at least, we have some social security in this.' Things were certainly different in the 1990s when the Soviets collapsed and economic precarity arose. Today, the indigenous peoples of Siberia have less of a sense of being part of a global indigenous movement and more of being their own groups.

**Can you discuss climate change in Russia today, Siberia being among the fastest-heating regions on Earth?**

■ There are some renewable energy campaigns. Importantly, Soviet scientists played a very important role in help-

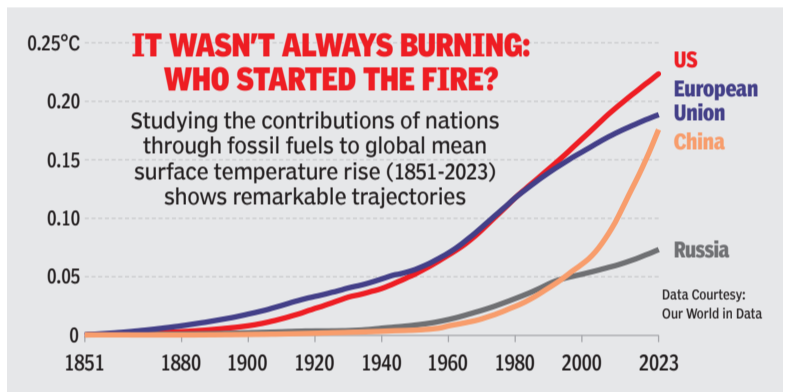


**A TINGE OF GOLD:** Russia also earns through wheat and mineral deposits

ing to understand global warming worldwide and within Russia itself. There is wariness though about being too worried — Vladimir Putin apparently joked that we'd like it if it was a little bit warmer here. That shifted the discourse to some concern but not in a very radical way.

**Why is the environmental history of the Soviet empire important today?**

■ It connects with the ways market economies and capitalism are organised today, the systems of our world which are structured towards certain kinds of energy politics and economic policies. The Soviet Union was a state that was trying to not put profit over everything — yet, it ends up becoming one of the biggest carbon polluters on Earth. There's much to be gained from thinking about what state socialism was earlier for where we might go today.



**OUR ANIMALS OF YORE...**

■ The past holds stories of people — and animals. The wolf holds a special position in world chronicles, appearing in the Babylonian epic of Gilgamesh. In Norse mythology, the wolf is represented as the warrior Fenrir who causes havoc. The depiction of she-wolves is quite different though — the Turkish legend of Arsenia sees one nursing an injured child while Romulus and Remus, the founders of Rome, were raised in legend by a tough but tender wolf-mom



■ The eagle, admired for its powerful, soaring flight, was considered both a form and messenger of Zeus, king of gods, in Greek lore. The Romans placed the 'aquila' on the Roman Legions' standard, carried to battle by 'aquilifers' — the Silchester Eagle, a prized bronze sculpture of this bird, was found near Reading in Calleva Atrabatum, a town in the Roman road system. With its imperial ambitions, America's adopted it, often remarking, 'The eagle has landed'



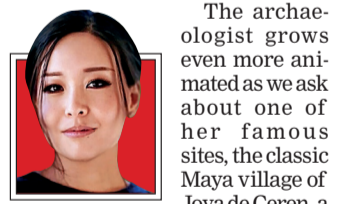
■ In India, the tiger represents incredible courage — it is the carrier of divinity while in Korea, tigers bring good luck. Western culture has seen tigers as terrifying — think Sher Khan in 'The Jungle Book' — or playthings like Tigger in 'Winnie the Pooh'. While First Nations consider the Amur tiger of Siberia as divine, these were later seen as vengeful beings, despite the poaching that's made them endangered

Research: National Geographic, BBC, Smithsonian Magazine

# 'Chilli peppers originated in the Americas — archaeobotany offers ecological strategies now'

Katherine L. Chiou is Assistant Professor of Anthropology at the University of Alabama. She tells Srijana Mitra Das in Times Evoke about archaeobotany — and the roots of plants:

Katherine Chiou works on South American plants from thousands of years ago. Yet, her enthusiasm travels effortlessly to today. Chiou describes her research to TE, 'I'm an archaeologist. Most of my work focuses on using plant remains to understand human relationships to the environment. I look at the impacts of climate change on past environments and plant domestication or how humans altered plants — and plants altered people.'



The archaeologist grows even more animated as we ask about one of her famous sites, the classic Maya village of Joya de Ceren, a pre-Hispanic farming community in El Salvador which, like Pompeii, was buried during an eruption of the Laguna Caldera volcano in AD 600, during the Maya empire's reign. The village had 200 agriculturalists — they built wattle and daub homes with grass-thatched roofs, organising different parts for sleeping, cooking, eating and storage, alongside maintaining kitchen gardens and fields. The volcanic explosion meant the villagers exited fast — but they left behind the materials of their daily



**HOT & HOTTER TO MILDST?** Originating in Mesoamerica, there are 4,000 varieties of chillies in the world — yet, there is a growing tendency to focus on a few kinds, causing the loss of biodiversity

have a normal Maya village inhabited by common folk, where you can see the pathways they walked, the fields of maize they were growing, the corn stored in houses, walls where cacao grew, beans and crystals kept in niches, perhaps for ritual use, jars of squash, dried chili peppers hanging from the rafters, even a duck tied in a kitchen. Through such studies, Chiou focused on one South American plant, loved around the world now. She outlines, 'Chilli peppers are one of the world's most beloved crops — India, of course, goes all in on them. Chilli peppers have a mechanism for heat in terms of being pungent. People around the world enjoy that and grow an emotional attachment to the plant. We recognise five different species of chilli peppers, different ones prevailing in diverse regions — India has a lot of capsicum chinense, the US, capsicum annuum.'

**RED HOT CHILLI PEPPERS**

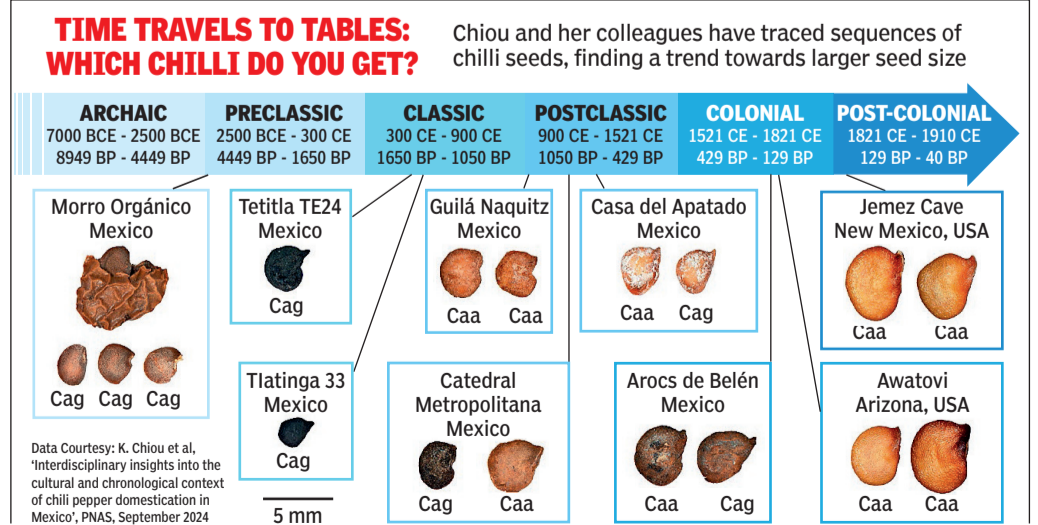
Chiou elaborates, 'Humans began to experiment early with chilli across the Americas. The earliest evidence is a seed dating to

10,000 years ago from coastal Peru. Pre-Hispanic cultures show the chilli pepper on various kinds of iconography. It had culinary uses but people also used it medicinally. In the highland Andes, there were subterranean tunnels where priests congregated, probably burning chilli peppers to create

smoke while ingesting hallucinogens. Later, the Inca burnt large piles of chilli peppers to create a tear gas and ward off the Spanish conquest. Inca writings say Inca tables should have chilli and salt and there are images of deities holding chilli peppers.'

Colonialism changed the plant — and the lives of those who loved it. Chiou explains, 'With the arrival of Columbus, chilli peppers start moving into Eurasia and Africa. The Indian subcontinent got it quite early. It got indigenised — the chilli became so important to people, it seems it was always there.' And yet, the chilli shrank. Chiou says, 'There's a constriction in the number and types of chilli peppers grown now. Supermarkets in the US have limited varieties. This suits an industrial capitalist system, with more standardised tastes for products. But there is a loss of genetic material. Diverse types are left aside for the more commercially viable.'

The selection of chillies has even deeper roots. Chiou says, 'I researched one species spread over 7,000 years in coastal Peru. Early on, there was a lot of diversity in types of chilli peppers there. As



**ARCHIVED:** Both Mayan pyramids and cassava leaves offer histories

vides evidence that is more representative of wide swathes of society. Typically, there are records of only higher-status individuals or a preference for documenting some things, not others. Archaeobotany looks at the most mundane things — the scholar James Deetz calls these 'small things forgotten'. By studying how people were truly living in their environment, we can discuss multi-cropping, environmental engineering, composting, etc. — in Moche sites in Peru (200-800 CE), we found evidence of people making fertiliser, using fish and plant remains through droughts and conflict. Many of those botanical varieties are now disappearing. Archaeobotany documents them, giving insights into how we might construct our behaviour today.'

**READERS WRITE**

Dear Times Evoke,  
Your feature with Rob Nixon of Princeton University (27th July) was very illuminating and prodigious. Nixon rightly said techno-utopian billionaires seek to make money while opposing environmental justice. It was also amazing to read about colonialists in Africa transporting wildlife to non-conducive climates, only to please Americans and Europeans. We readers always look forward to more such informative TE features.  
— MK Goel, Delhi

I always open the gorgeous TE page in TOI first and this week, Rob Nixon on environmental issues was remarkable. He gave the clearest explanation of 'techno-fixes' I have read, including solar geoengineering which seeks to meddle with elements in the universe. Given humanity's record on Earth, these ideas must not be allowed. Thanks for a very insightful interview, TE.  
— Shivani Goel, Lucknow

I love TE as it always focuses on animals and birds along with human issues! The way the conversation with Rob Nixon brought other species in was so skillful and featured beautiful wildlife from Africa. I was happy to learn that today, after years of apartheid, there is finally respect for the ecological knowledge of Africans.  
— Mala Rao, Kolkata

Rob Nixon in TE was superb. I agree on the real truth behind 'techno-czars', concealed under the veneer of altruism. They are indeed another avatar of climate change deniers. It was also eye-opening to read about 'fortress conservation' by colonisers in Africa. Transporting giraffes, etc., like trophy animals, to bring in crowds highlighted the diabolical nature of such colonisers. Thanks for a great read, TE.  
— Ravi Neelakantan, Secunderabad

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