In the summer of 2011, Ian Morris gave what most of his fellow classics professors would consider an unusual talk. The setting: CIA headquarters. The subject: humanity's future.

Until recently, intelligence analysts had taken no interest in Morris. The Stanford University professor is an authority on ancient Greece who turned to archaeology after failing as a heavy-metal guitarist. Morris makes his home as far from Washington bureaucracy as you can imagine: atop a ridge in this hippie town in the Santa Cruz Mountains, surrounded by towering redwoods and a menagerie of two dogs, two horses, and eight cats.
Yet the British-born 53-year-old is increasingly swapping this world of kale chips and hugs for the company of bankers and spooks. Their interest stems from his 2010 book *Why the West Rules—for Now* (Farrar, Straus & Giroux), which analyzes 15,000 years of data to explain how the West came to dominate the globe over the past two centuries. Its backbone is an attempt to quantify, going back to the end of the last Ice Age, the "social development" of Eastern and Western societies—basically, their ability to get stuff done.

If that isn't chutzpah enough, the final chapter goes further. It predicts the future.

Hence the summons to Langley. Morris gave a seminar about his data to a dozen people connected with the National Intelligence Council, which publishes a global trends report after each presidential election to guide the incoming administration. By Morris's calculations, the "Western age" will end by 2103, with the East regaining the development lead.

But Morris encouraged his CIA audience to see the bigger picture. Throughout history, the development of societies has spawned forces that disrupted them. As Morris has written, the empires of ancient Rome and Han China "set off migrations, wars, famines, and plagues that brought them down." Today development promises to reach astonishing levels. By his calculations, it will grow "twice as much between now and 2050 as in the previous 15,000 years," and double again by 2100.

That means the rest of the 21st century won't be just a shinier, faster version of the present. It will boil down to a race. Either technology will change what it means to be human, possibly rendering most of today's problems irrelevant, or an Armageddon induced by climate change will destroy civilization first.
As Morris tells me this story, he seems unalarmed. It's a Tuesday afternoon, and the professor is walking his dogs, Fuzzy and Milo, around the woods near his house, 30 miles south of Palo Alto. Should doomsday arrive, this mountain ridge feels like a fine place to hunker down and survive. It used to be a pot-growing commune in the 60s. Now it supports an evolving cast of animals, plus a vegetable garden and plenty of wild mint for mojitos.

At 6-foot-3, Morris has the sturdy build of a steelworker or a miner—his grandfather's and father's jobs—with short gray hair, large ears, and a warm smile that spreads laugh lines around his eyes. The professor tends to smile while spinning these prophecies of cyberrevolution and collapse, a quirk that led one interviewer to joke that he must be "barking mad."

Now he throws back his head and laughs. "It's probably all going to be fine!"

If Morris's predictions sound more like science fiction than scholarship, that's just one way his work upends basic beliefs about how scholars should study the human past.

Morris inverts the historian's conventional method of tunneling into archives to answer narrow questions. Instead, he broadens the story beyond the 5,000 years of written history by drawing on fields like archaeology, linguistics, and genetics.

With his camera pulled way back, many subjects that concern historians—great men and women, blundering fools, blind accident, culture, beliefs—fade in importance. What emerges is the full "shape of history," a story forged largely by biology and geography.

Social behavior boils down to the "Morris Theorem": "Change is caused by lazy, greedy, frightened people looking for easier, more profitable, and safer ways to do things." These people are much the same everywhere. Their societies develop
along similar paths. Geography explains different outcomes. "Maps, not chaps," as Morris likes to say.

"The agency of individuals actually matters much less than historians tend to assume," Morris tells me. "It's hard to find any examples of decisions made by single individuals that really changed the big story very much—until you get into the 20th century, when you've got nuclear weapons."

Morris's success at finding an audience for that big story comes at a time of anxiety about the waning influence of historians, whose work is often hyperspecialized. Kenneth Pomeranz, president of the American Historical Association, recently lamented that "our space in the public sphere has been diminished to the benefit of fields like economics."

*Why the West Rules* won praise in publications like *The Economist* and the *Financial Times*, which called it "the first history of the world that really makes use of what modern technology can offer to the interpretation of the historical process." Even so, Morris is finding that many fellow historians react to the book's emphasis on geography "like a bull to a red rag." A profile in *Stanford* magazine reported that, during one campus visit in Michigan, Morris "made one of the local historians so angry he could barely speak."

So he's taunting them some more. In January, he published a new book, *The Measure of Civilization* (Princeton University Press), which presents the evidence and methods used to build the index in *Why the West Rules*.
That approach follows the playbook laid out by an earlier classic of quantitative history, *Time on the Cross*. A controversial study that purported to show the economic efficiency and relatively benign conditions of slavery, *Time on the Cross* appeared as two volumes in 1974, one for general readers and a second for data-minded scholars. The authors, Robert William Fogel and Stanley L. Engerman, enjoyed tremendous publicity. But scholars pounced on their evidence, and the critiques helped deflate the quantification vogue within history.

Morris feels "pretty optimistic" that critics won't be able to pull his book to pieces. But he's already moved on to the next provocation. Next March he'll publish another millennia-spanning epic, *War! What Is it Good For?*

His answer? It's been good for making the world a safer and richer place.

The evening after our walk in the woods, Morris descends from his mountain ridge to preach the gospel of Big History before one of its most receptive audiences: students.

Morris is a popular professor at Stanford, known for his role in converting a lackluster classics department into a poster child for humanities enrollment growth. Tonight, about 60 freshmen gather in the first-floor lounge of a dorm called Florence Moore Hall, or "FloMo," to hear him speak. His goal is to explain why these children of the 90s should care about the ancient world.

When Morris was their age, he didn't care much himself. He grew up in the decaying industrial city of Stoke-on-Trent. Pottery-making was mechanized there in the 1760s; nearly 200 years later, its remains afforded Morris his earliest archaeological experiences.

By the time he got to college, though, heavy metal obsessed him more than old vases. Morris sent his demo tape to Iron Maiden in 1979, when the soon-to-be-world-famous band was advertising for a new guitarist. They passed. But he did
play professionally for another band called Expozer. When that failed, he got serious about ancient Greece.

Morris trained at the knee of a Cambridge don named Anthony Snodgrass, rising to become one of the most-cited ancient historians, but he still communicates with the cheeky informality of someone trying to reach an 18-year-old headbanger.

"Say I'm the king," Morris says, "and it's 1000 BC, and I want to go and make war on another dorm."

It's nearly 7 p.m. The quarter is ending. The couches are packed. The room is stuffy. But the students are smiling.

"I don't have a big bureaucracy to organize this," Morris continues. "So I just say to you, OK, folks, show up on Wednesday night, and we'll go and kill everybody in the other dorm. I'm not going to pay you. We're just going to go over there and steal all their stuff."

Morris spins this murderous fantasy to set the stage for a momentous period of history: the Axial Age.

The idea, detailed in *Why the West Rules*, is that an intellectual revolution takes place between 800 and 200 BC. Confucianism and Daoism in China. Buddhism and Jainism in India. The Hebrew Bible and Greek philosophy in the West. From East Asia to the Mediterranean, new systems of thought emerge that shape how billions of people make sense of the world for millennia to come.

All share a notion of transcendence. Reaching this superior realm involves a process of self-fashioning. Live ethically. Renounce desire. Do unto others. Practice these principles in your personal life, the thinking goes, and you will change the world.
Morris sums it up with a three-word bumper sticker he once saw in Boulder Creek: "Compassion Is Revolution."

The notion of an Axial Age—meaning the centuries around 500 BC formed an axis around which history turned—originated with the German philosopher Karl Jaspers after World War II. But Morris takes it further with a basic question: Why? Why all these upheavals at one time across this enormous area?

With a fusillade of rapid-fire typing, the students record his answer on their laptops: the shift away from "godlike kings."

The moral order of society had rested on rulers who claimed privileged access to the gods—"hotlines to superhumans," as Morris puts it. But after 1000 BC, he says, people across Eurasia begin to question that system. "Cosmological angst" descends on the intellectuals. We're cut off from the transcendental realm, they think. What to do?

Axial thought emerges as a response to this problem, says Morris, a way that people themselves can reconnect to the transcendental.

That's the intellectual story. But why is that happening? Why do people start questioning godlike kings in the first place?

In Morris's telling, the answer isn't so much culture. It's material forces.

From the Mediterranean to China, he says, population at least doubles between 1000 and 500 BC. Social problems explode. One result is a change in the organization of societies.

The old way of doing things—illustrated by the dorm-raiding story—breaks down. Godlike kings morph into something "more like a CEO." These manager-kings control states with big bureaucracies, taxes, and armies.
Long story short, as godlike kings give way to high-end states, an "intellectual vacuum" opens that gets filled by Axial Age thinkers. And their ideas, "countercultural" at first, eventually get co-opted by shrewd rulers.

"This is why the ancient world is important," Morris says. "You go from these little disorganized societies to these big, really organized societies. In the process, you create this Axial thought that lays the intellectual foundations for the next 2,000 years."

The Axial story follows a pattern that Morris sees again and again throughout history: As levels of social development rise, the new age gets the culture it needs. Brute biological forces, broad comparisons, bumper-sticker simplicity—this is the Morris method in microcosm. But neat narratives palatable to undergrads are red meat for critics.

The political theorist Francis Fukuyama appreciates Morris's large-scale approach. But Fukuyama faults him for failing to take into account shorter-term causes of important events. Religion, culture, and ideas are important in their own right, he says. They aren't just offshoots of material conditions.

In Max Weber's classic argument, for example, the Protestant Reformation shaped the development of capitalism and the modern world, giving rise to individualism and a literate culture.

"That's not at all central to Ian's argument," Fukuyama says. "And in many respects he, like a lot of other more materialist interpreters, going back to people like Marx, would simply regard the idea as somehow being generated by the material conditions of early 16th-century Europe."
"He tends to take ideas less seriously," Fukuyama adds. "I'm kind of in between. I think that the material conditions are obviously important in a lot of cases. But I just think that if that's all you've got in your model, you're not going to really explain some really important developments in human history, such as the rise of the modern world."

Others complain about the geography at the heart of Morris's model—the idea that you can talk about "East" and "West" as distinct entities over 15,000 years. In Morris's story, civilization goes back to the domestication of plants and animals after the last Ice Age. "West" means societies descended from the westernmost Old World region where farming initially began, in modern Turkey and Iraq, which got a head start on domestication thanks to favorable geography. "East" means societies derived from the easternmost area of origin, in what is now China, where farming started about 2,000 years later.

*Why the West Rules* traces the expansion of those cores and the complicated interactions between social development and geography. The fact that Portugal, Spain, France, and Britain protruded into the Atlantic was long a geographical disadvantage, for example. By the 15th century, the rise of guns and oceangoing ships had changed that location into an enormous asset for Western Europeans, enabling them to more easily colonize and plunder the New World.

But to Pomeranz, a China expert at the University of Chicago, Morris's ideas of East and West "just go too far in collapsing very, very internally complex entities into a single unit." Too much of the world doesn't fit into Morris's "East" and "West," or pops in and out of them. What about Vietnam, a former French colony? Or India? Or most of Africa?
Another criticism: Morris's index of "social development" doesn't withstand scrutiny. The index measures a society's "ability to master its physical and intellectual environment to get things done," according to Morris. It draws on four criteria: energy capture, social organization, information technology, and war-making capacity. In *Why the West Rules*, graphs function like the scoreboard of a never-ending basketball game—West is up! East pulls ahead!—and the long-term tally shows West leading East for 14 of the last 15 millennia.

But Pomeranz sees a fatal flaw in the index's design: "There's been too much change." Certain things have to remain constant for an index to be meaningful, he explains. If you're measuring two contemporary societies, and the difference between them is 10 points, then if you want to use the same scale to talk about 1,000 years ago, a 10-point difference has to mean something roughly comparable. If too much has changed, it breaks down.

Now consider the difference between a 15th-century cannon and an 18th-century cannon—hugely important at the time—versus the difference between an 18th-century cannon and the U.S. nuclear arsenal.

"Certain things have changed so dramatically in the last 200 years, particularly since the fossil-fuel revolution, that they're going to dwarf everything that comes before," says Pomeranz. The problem with Morris's index is that he "tries to do too much with it across too great a space, and consequently it just doesn't work."

Morris is hardly the first Big History analyst to weather a backlash. Some critics heaped scorn on the biologist and geographer Jared Diamond, whose *Guns, Germs, and Steel* traced the roots of modern inequality to environmental factors. Scientists felt that Diamond "washed over the details that make cultures unique to assemble a grand unified theory of history," as the *The New York Times* put it.
But big-thinking amateurs can also change fields beyond their home turf. Diamond's discipline-violating work made an important impact in development economics, Fukuyama notes, forcing specialists to reconsider some of their arguments.

Morris once again operates on a grand scale in his forthcoming war book, which ranges from the violence of our chimpanzee cousins to the coming world of nanoweapons that dissolve targets into gray slime.

And his big argument is bound to upset a lot of people.

"What sort of person goes around saying that mass murder has a good side?" Morris asks over a glass of Redwood Ale at a bar back in Boulder Creek. "The sort of person who's been very surprised by the results of his research."

That research starts from one of the big social-science findings of recent decades. In Stone Age societies, 10 to 20 percent of the population died violently. Yet by the 20th century, despite two world wars, the Holocaust, and nuclear weapons, only 1 to 2 percent did. What explains that decline?

The Harvard cognitive scientist Steven Pinker wrestled with similar questions in his 2011 book *The Better Angels of Our Nature*. But Morris claims Pinker didn't "bring enough historical firepower to bear." If you take the long view, he says, you're forced to face a paradoxical explanation for the decline in violence: war.

War creates bigger societies, either through conquest or because groups unite from fear of it. Rulers of these societies suppress internal violence.

"As these societies get bigger and bigger," Morris says, "the number of people running around whacking each other on the head all the time goes down. And the world becomes a more peaceful place."
It becomes richer, too: Evidence suggests that the standard of living rises as societies get bigger and more integrated.

But the evolution of war, like biological evolution, is a "messy process." What Morris calls "productive war"—the kind that makes bigger and safer societies—can often turn "counterproductive," breaking up states.

And by the 20th century, there were enough nukes to kill everyone on the planet. "The environment had changed so much," says Morris, "that the kinds of productive war that had shaped history for 10,000 years no longer worked."

So where does that leave us?

The big story goes back to what Morris said at the CIA. If you buy his projections—based on the conservative assumption that social development continues at 20th-century rates—the implications seem inconceivable.

By 2100 we will see cities with 140 million people. Robots will wage war. Humans, whose bodies have changed more in the last 100 years than in the previous 100,000, will "transcend biology."

The futurist Ray Kurzweil calls this merger of human and machine intelligence "the Singularity." Morris suggests that something like that may create new ways of capturing energy, communicating, thinking, fighting, working, loving, aging, and reproducing.

Unless, he says, we never get there. The paradox of development is that it produces forces that can cause catastrophe, if not managed properly. Climate change, Morris says, may be the "ultimate example." The very fossil fuels that propelled social development upward after 1800 are now causing global warming.
But like earlier periods of climate change, Morris predicts, "this one will not directly cause collapse." The truly scary thing is how people might react to the weather. Climate change could unleash famine, enormous migrations, disease, and perhaps even nuclear war.

And there's the rub. Past empires were regional. So were the impacts of their collapses.

"The big scary thing now is that the entire world has become one big experiment," Morris says. After the Roman Empire fell, he points out, it took 1,600 years for western Eurasia to climb back to the level of development that the Romans had enjoyed. "That's a pretty catastrophic fall, but of course the Romans didn't have nuclear weapons. The potential is there for a much more disastrous collapse."

Which means the next few decades will be the most important in history.

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