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The Early Roots of a Modern Crisis

Contribution to GTI Forum [Interrogating the Anthropocene: Truth and Fallacy](#)

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This is our challenge: to move a world of almost 8 billion people, most involved in an economic system with tremendous inequality, a clear imperative to expand, and a chronic tendency to stagnate, toward some real rapprochement with earth. This is a monumental challenge. If nothing else, the Anthropocene idea is the truth of the moment encapsulated as a geological epoch. Yet it explains little of the cause.

The question is how to explore social evolution in order to give insight appropriate to the historical moment. Engage for a moment in an exercise to reveal the complexity of social evolution. Begin with what we know about exponential growth—that it starts out slowly and finishes very rapidly. We are on the upper neck of an exponential flight but the structure and dynamic of this trajectory were in place long before the twentieth century and even long before the present world system (capitalism) took hold. We have to ask ourselves where we mark the inflection point where we entered this present phase of our social evolution. It is important to go beyond the Capitalocene if we are to understand how we ultimately landed where we are.

Let me offer two stylized economic systems in order to highlight something about the complexity of our social evolution as it pertains to this matter. The first is a hunting-and-gathering economic system where homo sapiens lived as minimalists, surplus did not exist, feedback loops prevented expansion, and humans were mostly independent and self-reliant (most could quite literally fend for themselves). Each human had an expansive knowledge of the more-than-human world, and they used that knowledge to garner their material necessities (food, shelter, clothing). One can argue that it was an economic system embedded in the rhythm and dynamic of the more-than-human world and did not have feedback loops of expansion.

Juxtapose this with a second stylized system—call it global capitalism. In this system, humans are not minimalists; they are existentially interdependent (think about assembly line work, global supply chains, and global markets) and are involved in a system dynamic that is expansionary, where surplus takes the form of profit and feeds an endless process of capital accumulation, exploitation, and crisis. There exists a very real duality between this economic system and the more-than-human world that is so pronounced that the economy literally functions as if it is a supra-material system (a system disconnected from earth).

It is not a change in the DNA of homo sapiens that delineates these two entirely distinct systems. The exercise of comparing them highlights the fact that humans are contextual, and so too is their relationship to the more-than-human world. This is a foundational aspect of human social evolution. Context is defined within an economic system. We did not move directly from hunting and gathering to global capitalism, and a cursory look at history reveals that we didn't have some ideal copasetic relationship with the more-than-human world before the present world system took hold.

If we look at population dynamics and the incidence of ecological collapse, it is clear that the cultivation of annual grains, and the civilizations that rose and fell as a result, mark an inflection point. The transition from hunting and gathering to grain agriculture was a monumental change in our social/economic evolution where the structure and dynamic of economic life became something distinctively different.¹ Our economic trajectory was recalibrated with this transition, and so too was our relationship to the more-than-human world. Surplus and expansion; hierarchy; profound material interdependence around the focal point of grain production; and powerful feedback loops between population, grain (energy) production, and division of labor created a structural duality between humans and earth embodied in the agricultural system. The cultivation of grains was not simply a change in the way we secured food but was an entirely distinct economic trajectory, an alteration in our social evolution where the economic system became self-referential and expansionary—a distinct whole.

The changes in economic order ushered in by capitalism were a matter of degree but not of kind. Capitalism changed the form of surplus and expansion but not the fact of their existence; it altered human-to-human relationships but did not change the fact of enhanced material

interdependence (nor the presence of hierarchy); it drove the wedge of duality between humans and the more-than-human world ever deeper but did not create that duality. An economic inclination established with grain agriculture takes an exaggerated form with capitalism and is magnified further when capitalism is married to fossil fuel. Our economic system is quite literally both a supra-material system (functioning as if it is removed from Earth) and a profoundly earthly matter as our crossing of planetary boundaries demonstrates. From the perspective of social evolution, it is fair to say that capitalism is a system within a system. It is the legacy and apogee of a system change that took hold beginning some 10,000 years ago.²

We do need a story rooted in social evolution, but unfortunately, there is a complexity that does not relieve us of the problem of seemingly inevitable consequences (determinism), nor an inclination toward techno-fixes, nor grappling with the nagging problem of the necessity of limits and simplicity. In fact, the long arc of social evolution (one that takes us beyond the Capitalocene) leaves us to ponder whether we humans can alter this long-lived system dynamic. It appears that our cultural and institutional inclinations have been accommodating to the impulse established when we made the transition to grain agriculture. Certainly, it is easy to imagine capitalism as a particular institutional variant of surplus and expansion that began with grain agriculture.³

If we take social evolution where it leads, we might entertain the notion that the economic superorganism might be considered a distinct whole in the matrix of our social evolution. Here social evolution takes on a significance that matches the idea of the Anthropocene as a geological epoch. Perhaps more importantly, the idea of the economic superorganism expresses a deeply rooted materialism that is sure to make us uncomfortable because it conjures up determinism. This necessarily leads us to ask this question: Can we change the trajectory of our social evolution now embodied in the present variant of the economic superorganism? We are moved by this question from hubris to humility.

It is inadequate to approach the war between economy and earth solely as a subset of the accumulation of capital and its problem of inequality and exploitation. If we do that, our quest for equality will draw the lines of what is possible ecologically, and we will end up with some

vaguely sustainable socialism. That is better than unsustainable capitalism, but we must ask ourselves whether there is real rapprochement with earth in this.

If we are to stop ourselves from crossing a great divide where we lose our now precarious foothold on an earth once abundant with more-than-human life and more-than-human impulses, we must focus on the necessity of limits, the downsizing of the human presence on earth. In short, we are forced to contend with the cumulative impact of humans on earth that began with grain agriculture. We are forced to think more clearly about what it means to take our place as one of many species that inhabit the earth. This focus will expand our strategies for enhancing human well-being to include, for example, the necessities of conservation of the wild and the downsizing of the human population.

Endnotes

1. John Gowdy and Lisi Krall, "The Ultrasocial Origins of the Anthropocene," *Ecological Economics* 9 (2013): 137–147.
2. Lisi Krall, *The Economic legacy of the Holocene. The Ecological Citizen* 2 (2018): 67–76.
3. Lisi Krall, *The Great Divide* (book manuscript in progress).

About the Author



Lisi Krall is Professor of Economics at the State University of New York, Cortland. She began her academic career as a heterodox labor economist concentrating on gender issues. Her research interests include political economy, human ecology, and the evolution of economic systems. She is currently studying the agricultural revolution and its significance in human social/economic evolution. Her work, including articles published in diverse journals and the book *Proving Up: Domesticating Land in U.S. History*, explores the interconnections of economy, culture, and land. A Fulbright Scholar and SUNY Senior Scholar, she has collaborated with the Evolution Institute, the Foundation for Deep Ecology, the Post Carbon Institute, the Population Institute, the International Forum on Globalization, and the Land Institute. She holds a PhD from the University of Utah.

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