

Theory Talks

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THEORY TALK #62

KAREN LITFIN ON GAIA THEORY, GLOBAL
ECOVILLAGES, AND EMBEDDING IR IN THE
EARTH SYSTEM

Theory Talks

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Citation: Mayer, M. (2014) 'Theory Talk #62: Karen Litfin on Gaia Theory, Global Ecovillages, and Embedding IR in the Earth System', *Theory Talks*, (13-01-2014) <http://www.theory-talks.org/2014/01/theory-talk-62.html>

KAREN LITFIN ON GAIA THEORY, GLOBAL ECOVILLAGES, AND EMBEDDING IR IN THE EARTH SYSTEM



Many debates in International Relations concern struggles regarding what should be the autonomous limits and focus of the discipline itself. However, increasing environmental and climate concerns challenge the self-contained nature of IR on discrete political phenomena, because what IR considers its exogenous context is threatening to destabilize the premises of the content of international political practice itself. While such concerns often lead to a securitization and politicization of the environment and climate in IR, some scholars argue we should work towards the exact opposite. In this *Talk*, Karen Litfin—among others—elaborates on the kind of theory in which IR is embedded in, rather than applied to, natural systems; discusses examples of social arrangements that try to translate that theoretical insight into practice; and engages with questions of secularism and mysticism that irrevocably accompany those efforts.

What is, according to you, the biggest challenge / principal debate in current IR? What is your position or answer to this challenge / in this debate?

The fact that we can today truly speak of something of a global economy, the central problem now is to formulate the political institutions that are commensurate to these globalized economic institutions. We have far to go on that project. It also means doing so within the carrying capacity of the earth—that is, politically configuring that global economy in such a way that it doesn't exhaust ecological resources. So I would say that the challenge, in terms of actual politics, is to find those institutions.

The challenge for the discipline of International Relations is to do the necessary thinking to facilitate that institutional transition, but few IR scholars even acknowledge that political institutions must attend to the carrying capacity of the earth. In general, the discipline of International Relations, Political Science and even most of social sciences more generally behave as if there are no natural constraints to our behavior. Yet our freedom to even be able to theorize about the international system is completely dependent upon a vast web of life, other people growing our food, and a whole technological infrastructure that we had nothing to do with creating. International Relations talks a lot about interdependence, but do we really take it seriously?

How did you arrive at where you currently are in IR?

I've always been interested in science and technology. As an undergraduate, I studied physics and astronomy, but I didn't finish those majors because I realized, that if I graduated with those degrees I would most likely be working indirectly or directly for the military. I got politicized and I began to see that the political agenda drives the scientific agenda. This was in the 1970s and it was possible at that time that we were going to have an all-out nuclear war. I did not want to be a part of that.

I began to see that there is a dialectical relationship between science and politics. Because science facilitates the technological changes, which make the basic backdrop for politics, it's very important. For instance, the defense department was funding DARPA, which led—without them fathoming that at the time—to the development of the Internet—now a key site where global politics plays out.

Science also provides metaphors through which we understand politics. I did my Masters thesis on the mechanistic worldview and the devitalization of nature in the 17th century—that is, taking living nature out of our systematic theorizing. While others had written on this, I traced it back to the ancient Greek philosophy. A reductionist and mechanistic worldview underpins a lot of IR theory, as well most of our political institutions. We need to really start questioning that. Another way this plays out is that the notion of the global really had a huge jump when we got the image of Earth from space. The idea of Earth Day was really closely aligned to the fact that the image of the earth from space just had come out. Gaia Theory came about because James Lovelock was looking for signs of life on Mars. We were interested in extra-planetary life, but weren't looking at our own system or planet. So basically it turned all that science back on the Earth and said 'Oh my Gosh, we do have this kind of atmosphere that has the telltale science of life in it', which tells us that life is hoping to create the atmosphere. Then to have the human mind to conceptualize that is really huge. The idea that we are the Earth becoming conscious of itself is basically what science is telling us. These monitoring systems are one means by which we have the possibility of becoming conscious of that fact.

In terms of personal trajectory, when I started teaching International Relations back in the early 1990s, I started realizing that petroleum holds the whole thing together, the whole global system was held together by petroleum. (You could also say fossil fuels, but coal and natural gas don't power that much transnationally; it's really the petroleum.) Yet hardly anybody in IR talks seriously about petroleum—or energy or biodiversity or soil or the atmosphere. That's what I mean about getting to the material basis. But having said that, I think how we interact with the material basis is a reflection of our consciousness. So I'm not a material reductionist. Rather, I'm looking for a wholeness that understands our approach to material reality as being a reflection of our consciousness.

So this was why I have become interested in biological metaphors. I still think the leaning edge of human thought is understanding human systems as living systems. From this vantage point, we can begin to reshape our institutions in ways that mimic, sustain, and regenerate living systems. There's a long history of natural law and I don't exactly put myself in that

camp, but I think there are ways that we need to understand ourselves as thoroughly embedded in natural systems and then move consciously from that place.

What would a student need to become a specialist in IR or understand the world in a global way?

To my mind, these are very different questions because, at least at many universities, becoming an IR specialist often entails ignoring some fundamental global realities. For one, even though most of humanity lives in so-called developing countries, most IR theory pays attention only to the Global North. Likewise, IR is fairly blind to the fact that the lifestyles of the Global North, if globalized, would require between three and six Earths, depending upon whether you are looking at Europeans or North Americans. Again, there is only one Earth! Fortunately, an important subfield has emerged with IR—global environmental politics—that is helping to rectify the situation.

The question I would prefer to answer is: what would a student need to know in order to understand the most pressing challenges facing the world system? To this, I would advise three things. The first would be to dive deeply into a broad and critical reading of the history of modernity, including the interpenetrating scientific, political, commercial, theological and industrial revolutions that characterize the modern era. The second would be to learn about the primary international institutions (the WTO, World Bank, IMF, EU, UN Security Council, etc.), and ask what is working, what isn't, and why? The third would be to do all of this learning while simultaneously learning to think systemically. Take at least one good course on systems theory; one that specifically offers a strong grounding in living systems, and start making connections. Why, for instance, do 'ecology' and 'economics' share the same root (*oikos*, Greek for household)? What would it mean to consider the international system as a living system and a subset of the Earth system? If we think this world system that we've created of a globalized economy and rudimentary international law is not a part of a living system, we are living in a big delusion. So to actually understand how living systems function, we need the literature on system theory that of course has been used in biology and ecology, but has also been applied a lot in the business world and organizational development. I think it's making its way into IR.

The world is full of technologies and technological systems (and getting more so each day). Could you elaborate on how this is relevant for IR?

I think that's a huge gap: IR doesn't pay nearly enough attention to technological systems—and when they do, it's generally from an uncritical and mechanical perspective. Even though much of the constructivist critique of liberal institutionalism is that the latter is overly materialistic, it actually isn't as if institutionalists talk about economics as if that were a material reality. Economics is a secondary human system overlaid on, but abstracted from, material systems. I think that IR needs to get really serious about understanding the actual material basis for politics. Climate change will probably be the issue that drives that.

So what kinds of technologies and institutions are we going to have to facilitate a global civilization? Now that's a worthwhile question! As I indicated, we now have a more or less

globalized economy, but we don't have a global polis; we don't have the institutions that are commensurate to the economy that we have got. So the question is: can we sustain current civilization on the energy budget that is available to us and not wreck the climate?

Technological systems are driven by energy; energy is the master resource. Some energy analysts say that in order to have a global civilization, we need to have an energy return on energy investments of something like 5 to 1—meaning, for instance, that for each barrel of oil we put into getting more oil, we need to get five back. Right now petroleum is getting—depending on where you find it and how it's getting to you—somewhere between 15 and 25 to 1. That's the Middle East. It used to be 100 to 1 at the beginning of the 19th century. And now we are getting, say, 20:1. I've seen analyses of tar sands that put that energy source at somewhere between 3 and 5 to 1. Solar panels, if they work well, they are maybe getting 5:1. So the trend is worsening and we are starting to push that envelope of 5:1 energy return on investment. And if we exploit some of the new unconventional hydrocarbons—like fracking and, worse, methane hydrates—to their maximum potential, we'll fry the planet.

My question is how we can leverage existing technological, economic, financial and political resources to sustain a global civilization. I dearly wish more people were putting their attention on that question. The underlying assumption for most people is that business as usual can continue. Maybe, but not for long.

I'd like to throw in one little term coined by Stephen Quilley, an environmental sociologist: 'low energy cosmopolitanism'. I think this is a huge challenge for us. If it's possible to have a global civilization on the energy budget that we have available, it's going to be some form of a low energy cosmopolitanism, where we make some very conscious choices about what we are going to globalize. For instance, Germany probably wouldn't be importing grapes from Africa and none of us would be going on luxury vacations. We would be making a lot of conscious choices, but if we want to have a global civilization we have to be globalizing something, so what is it that we are globalizing?

How do you see the question of technological determinism when studying technologies?

This is really important to note, because if you just look at human systems as living systems there can be a kind of materialistic reductionism there. People who think like William Connolly, the new materialism understands that we should not be materialistic reductionists and that there is this wildcard of human consciousness. The fact of the matter is, we can assemble all the data we want but we don't know where we are going. But what we do know is that we've created a tremendously complex and complicated world that nobody can actually understand!

I think we need to address that question in a very specific way with respect of specific technologies, but if we stick to one example—satellites—I think the technologies do have certain properties embedded in them. I have written a feminist theoretical critique of earth observing satellites, where I argued that this kind of gaze from space actually does downplay or preclude certain perspectives. But as I thought about it more deeply, I saw very concretely that a lot of people are using those technologies to do what *they* want—not what the

centralized political and scientific institutions that gave rise to the satellites wanted. So I would say the wildcard here is consciousness and human inventiveness, because that's what will shape how people deploy the technologies once there are on the ground.

For example, satellites were devised for spying and are certainly still being used for spying, but they are being used for so much else, such as Google Maps. I think some people might have been able to foresee that kind of development, but most of us didn't have a clue that this sort of thing could come about. Or that you could have indigenous people mapping their traditional lands in order to make land rights claims. So the wildcard really is human consciousness and that's why nothing really is deterministic. The greater the complexity in a living system, the more surprising its emergent properties. Seven billion human brains linked together in global technological and ecological systems are bound to yield surprises!

You indicated that you use biology and living systems as a reservoir for metaphors. Could you elaborate on that?

If I speak about living systems I usually do so through work called Gaia Theory. Looking through the lens of Gaia Theory, we would first understand that we exist within certain spheres such as biosphere, atmosphere and hydrosphere. We have taken geological time and inserted it into human time by digging up fossil fuels. As a consequence, we have kind of checkmated ourselves and are now forced into having to think in geological terms. We have to start thinking in geological time scales, which was never the case before. If we are going to find a way of inhabiting this planet sustainably, particularly if we are going to have anything approaching a global civilization, we have to understand that we live within a living system and then go about the rather daunting but exciting project of developing international law and institutions that reflect that reality.

There is a whole subfield of earth system governance in which Earth system scientists, IR theorists and international legal experts are coming together to think through these questions. The literature on earth system governance starts from the premise that the Earth is a living system and draws heavily on earth system science, which draws heavily from Gaia theory. You cannot separate atmosphere, oceans, lithosphere, and biosphere: they are all intertwined as one big living system—and now humanity is functioning as a geophysical force on a planetary scale. That's the meaning of the Anthropocene, and it will require an entirely new way of going about politics and economics.

So how can we bring the concept of Gaia Theory into practical reality? Besides the emerging field of Earth system governance, we can also do this in a very personal way by beginning to really internalize what it means being a human being at this time. A few years back, I came to the point where I decided that I did not want to theorize about anything I could not live. That turned out to be a huge challenge. After I wrote the 'integral politics' piece (see links below)—and I really do love that piece!—I saw that I couldn't fully live it. It was so big. For me, one of the most important implications of Gaia Theory is that we are the Earth becoming aware of itself. That's a huge implication. If you merely think of it conceptually, it is wonderful mind candy; but if you actually take it to the heart and try to live it, it changes your life. I challenged myself to do this and, at some point, it occurred to me that there must be other people who have traveled farther down that road than I had—in other words,

people who had radically changed their lives to reflect their growing awareness that human beings are the Earth becoming conscious of itself. So I found myself traveling around the world to ecovillages which, for me, helped to tie it all together. Why is somebody who's teaching international environmental law and politics wandering around the world visiting these little tiny micro-communities? Because these people are taking the radical implications of Gaia Theory to heart (even if they've never read about it) and collectively changing their material, economic and social lives. That's why I spent a year on the road living in ecovillages. It's a strange thing to be an IR theorist who doesn't want to theorize about anything that she can't live!

Bringing up the issue of how to live your research, could you elaborate on what kind of outlook is necessary to live in accordance to Gaia Theory?

So this leads to the importance of humility for me. The value of humility is that it comes naturally as a consequence of understanding. You do not have to value it in advance; it comes automatically from understanding ourselves as part of this larger living system. In my experience at least, as soon as you grasp that, you automatically have an enormous sense of humility and gratitude. Those two qualities just spontaneously arise from truly grasping that reality. Going back to ecovillages, I asked myself who is living in ways that can actually work for the long run. The result became the eponymous book. I wanted to see collective efforts and particularly larger communities that were generally at least a hundred people, because you can do a lot more collectively, than you can on your own. Some of these communities are reducing their ecological footprint radically. In some cases, we are talking about per capita reductions in material consumption and waste production of 80-90% as compared to their home country averages.

This is very big news—especially given that these communities are still tied to the larger system. They are not tiny isolated enclaves. For instance, they're still using the mass transit of the larger society; most of them have Wi-Fi and high-speed Internet. They're not living in caves and many of them are very much globally engaged. On a material level, they're much closer to living within the Earth's carrying capacity. So in that way, I was very interested in just seeing what are their physical systems. But I began to see that their physical systems were only made possible because of the degree of trust and reciprocity that they have created.

That entails doing a lot of personal work. Diana Leafe-Christian, who has written a number of books on communities, says that 'community life is the longest and most expensive personal growth workshop you'll ever take'. It's true! If you're willing to do the personal work and hang in there through the difficult times and conflicts, you can develop the kind of self that's willing to do some very deep sharing. I would add, though, that this level of sharing is done best when it is respectful of the individualism that we have developed. I don't think that communities should be running roughshod over individualism. There needs to be some balance of privacy and communal life. The communities that work well have figured out a way to do this. To my mind, the communities that work really well are the ones who are working on developing collective forms of consciousness. Which means actually I think going beyond the separative rational mind: it doesn't mean demeaning those qualities, it means using them, but using them in the service of something larger. As I said earlier,

progressive change entails transcending and including. Individualism, for all its negative consequences, is a genuine historical achievement.

And I would say on a very practical level, one of the ways that they reduce their footprint is by withdrawing to some extent from the global economy. Having very low consumption and being fairly energy efficient and self-reliant, reliance on food self-sufficiency, but withdrawing from global society. To me, they are answering the question I raised earlier: What would a low-energy cosmopolitanism look like? And they are doing this not just because they consume less and live more simply but because by and large ecovillagers actually have a cosmopolitan identity. They might be growing their own food and composting their shit, but they're also tied into the global system. They're actively engaged in the Internet, sometimes attending global conferences and many of them are politically active on issues such as genetically modified organisms and nuclear waste disposal and human rights.

They are little nodes of positive examples, but they're very small. In fact, hardly anybody lives in an ecovillage, which is why the last chapter of my book is called 'Scaling it up'. I basically look at the underlying principles of ecovillages and talk about how these principles could be scaled up to the level of cities, regions, national government and international norms. I realize this is a big stretch, but I felt that as an International Relations scholar, I at least need to try it. The important misconception you run into that moment is the idea that sustainability needs to be expensive—the idea that somehow we can consume our way into sustainability. Actually, the most sustainable form of consumption is no consumption! Yet this is not what all ecovillages do. There is one community that I visited in up-state New York, in Ithaca, this is the same city that Cornell University is in, where two thirds of the residents have masters degrees or PhDs and their homes are worth more than the average in the area. They have a pretty middle class lifestyle, yet their average ecological footprint is about half the American norm. So they're not sustainable, but they are definitely moving in the right direction. They hired architects and have nice homes, which is a very different approach than that of most rural ecovillages.

In the Global North, the smallest footprints that I saw tended to be in the rural off-grid ecovillages that were more or less self-sufficient in food, energy, and water. In some of these communities, residents were living on as little as 25% of their average national incomes. This is impressive because it tells us that people in affluent countries can live well on far less money and with far less environmental damage than is considered normal in those countries.

Yet the fact of the matter is that most people today live in cities, so it was important for me to also look at urban ecovillages. Los Angeles Ecovillage, for instance, has a very small footprint because it is high-density and automobile use is discouraged. If you lower your transportation footprint by not driving or sharing vehicles, and if you grow your own food or rely upon locally produced food and have and passive solar construction and renewable energy for your buildings, you can dramatically reduce your energy consumption. You can have a much smaller footprint and still have a very comfortable life. People think that you need money in order to live. It seems that we need money in order to live, but actually what we need is food and shelter and transportation and relationships. So if you figure out ways of getting those things without money, you've made a huge step to getting out of the global economy. In a nutshell, that's what ecovillages are doing.

So are ecovillages all the same across the globe? Is it a new ‘social form’ emerging?

It is different in the developing countries and in the affluent countries, and I think it's important to clarify that at the outset. I visited a number of ecovillages and ecovillage networks in both developing countries and affluent countries. In the latter, there is a greater possibility for what I consider ‘post-individualist’ that both transcends and includes individualism. A very simple ‘post-individualistic’ approach to property rights, for instance, would be co-housing, where the land is owned in common and people own their own homes. But their private homes would be a lot smaller because so many amenities are shared. The common house would have a community kitchen, so that, depending upon how much people are willing to share, private kitchens can be very small. If there's a collectively owned guest space, then you don't need a guest room in your house. And if you do a lot of your socializing together, then you can do that in the common house. So your own house could be quite small but you would still have access to all the comforts of a private existence and more. The more people are willing to share, the more will be collectively owned. And that really does require trust, because it's a big problem if the relationships blow up and you have your finances entangled with those people! This is just one example of how property rights can coexist with the softening of boundaries between individuals.

The flipside of this is occurring in developing countries, where the post-individualistic arrangement that I've been making doesn't really apply. And this is important because that's where most people in the world live. There you have cultures where people already have much more of a collective orientation. So we really need to pay attention to what's happening there. Actually, in many cases, their developmental task is to become more individuals. And the question is: how do they become more highly-individualized rather than being subsumed by traditional moral codes—how do they do that without over-consuming. In the west, we had a fossil fuel subsidy that enabled us to become highly individualized, as I said before, the only reason we can be having this interview is because somebody else is growing our food.

In developing countries, the real task is to find a way for people to become more individualistic without over consuming. And so this is why I was impressed by the model I saw in Sarvodaya, a Sri Lankan participatory development network that belongs to the Global Ecovillage Network. There, fifteen thousand villages are trying to apply ecovillage principles to create what they call a “no-poverty/no-affluence society.” Their programs in micro-finance and women's literacy, for instance, give villagers—especially women—an incentive to stay in the village because they have a livelihood. And when people stay in their villages, they tend to live a lot more sustainably. As the women becoming literate, they begin making choices for themselves and therefore becoming more individualized. So it's a way of hopefully leap-frogging urbanization in order to sustain rural village life.

I should say that you can apply these principles anywhere you live, in cities as well as rural areas. I visited quite a few ecovillages in cities. One of the most important things that the Global Ecovillage Network is doing is training people, wherever they live, to apply ecovillage principles in their urban neighborhoods or wherever they find themselves. There have been some amazing projects coming up in the Brazilian favelas and in China. GEN has developed

a course called “Gaia Education” that’s being offered all over the world and especially in developing countries. There’s now a Global Ecovillage Network for Africa. There are basic principles of sustainability that, if you live in an ecovillage, you can apply more intentionally, but they are applicable everywhere.

In a way, ‘Gaia theory’ sounds very spiritual—and for that reason the Gaia concept was initially very much opposed by many physicists and climate scientists. In a way, Gaia theory entails a critique of modernist secularism and faith in technology; how do you see that in your work?

I have mentioned the critique of mechanization in the early modern era, but in fact the early modern scientists, such as Newton, were all looking for God. Now many of the hard sciences are moving in the direction of mysticism—I would speak of mysticism rather than spirituality—but it’s not a mysticism that is simply a projection of the human psyche onto the cosmos; rather, it is empirically derived. I think that’s a kind of postmodern development that would have been impossible in the pre-modern era. That’s what I was saying about transcending and including, that the ideas that we have of who we are in the cosmos are so different as a consequence of modern science. We can transcend those ideas but also include them. From the Big Bang and the evolution of species, we came out of all of that! And implicit within this fact, if you take it deeper, is that there is a secret oneness to it all. I think that the lessons we have to learn politically and economically now are about interdependence. But if you take interdependence to its depths, it too implies a secret oneness. Most importantly for the current evolutionary crisis: that oneness is embedded in our consciousness and we can access that. That is the reason why I don’t want to theorize about anything that I can’t live; I’m working at that level as well.

It’s interesting, because that also has implications for my teaching. I teach in a fairly direct way when I have living bodies and inquiring minds right in front of me and can engage them at a personal level. I give them my big picture view of politics as a subset of living systems and also being a kind of living system. I get them to inhabit that in themselves through doing contemplative and reflective exercises in the classroom. For instance, I’m teaching a class called political ecology of the world food system and we talked about the globalization of different food commodities and where chocolate comes from for instance, where it originally came from, who processes it, how much do the farmers get from all of that. I brought in raw cacao nibs, which most of the students had never tasted before. We talked about where these came from and how expensive they were even though cacao is not processed, because raw cacao is a something of a delicacy. Then I gave them this very highly processed chocolate without sugar and with alternative sweeteners in it. I invited them to really be present to tasting each of these things as I talked about them and I left some significant gaps of silence, they could actually be present to experience of themselves inhabiting the living system and now being the beneficiary of a world food system. How did we come to have cacao from West Africa and stevia from Paraguay in our mouths? What are sociopolitical and biotic networks that have made this possible? And can we allow ourselves to truly experience what it means to be the beneficiary of these living systems? And what of our own as living system? When I am in the classroom it is actually quite easy to teach what I call person/planet politics. I never teach anything as if it is just ‘out there’. Whenever I teach anything, I want the students to inhabit it in their bodies, in their experience. And I try to do

that as best as I can by living what I teach as best I can.

It is a little embarrassing, but I don't know how all of this applies to IR; I am just trying to do it as best I can in my own life, as it is presented to me. And I write about it and I publish things—I have a piece coming out on localism that basically makes the case for what I call organic globalism, which is a globalization that is premised upon the earth as a living system and international institutions being designed very consciously on that basis. I don't quite know what it looks like but I have a sense of its rightness. To be honest with you, I am better with that in the classroom that I am at the level of large-scale institutions. Because I am beginning to inhabit this in my own being and I can communicate it to students. Maybe the next challenge is to be able to communicate it at a larger level.

So isn't there a tension between living sustainably and participating in a globalized world that is hard-wired in terms of technology?

Consciousness does not at all preclude technology. For example, I think us having this dialogue is on some level contributing to a certain kind of consciousness and it's completely facilitated by technology. Without Skype we wouldn't be having this conversation. What's helpful to me, about what I call E2C2 (ecology, economics, community and consciousness) is that these are four lenses through which to view *any* phenomenon—and that includes technology. For instance, we can view our Skype conversation through the lens of ecology in terms of the amount of energy that's used. Economically, we might consider what is being produced and what its value is. It's probably a pretty good economic deal since you and I are virtually paying nothing for it! So economically it's a good deal. In terms of the communitarian lens, we are developing a dialogue that will hopefully be in a relational field with many other people, perhaps thereby also contributing to a certain growth of consciousness.

E2C2 offers four lenses through which we can look at technology; they are not mutually exclusive. For me, the question is: to what extent are our technologies beneficial in terms of each of the lenses. Denis Hayes, the guy who started Earth Day, said the basic principle of sustainability is that you leave your molecules at home and export your photons. This brings us back to the concept of low energy cosmopolitanism. It's a huge question: what are we going to globalize? If we are going to have a global civilization we need to have global communication. The Internet is a tremendous achievement in that regard, and could to function as a kind of global brain, though its roots are in its military applications and today it is primarily dominated by commerce. (And I understand that pornography is a big part of it as well.) Despite its limitations, the Internet provides an infrastructure that could enable us to be in communication globally, which is very important if you want to develop a global consciousness and a global civilization. But we need to understand that our technologies must operate within the limits of the Earth system. In other words, technologies—like all human systems—are also living systems.

Last question. So how can we relate this back to IR?

I think one of the ways this is happening is that some pockets of IR are actually returning to

foundational concepts. For instance, Alexander Wendt (*Theory Talk #3*) has started this Journal *International Theory*. People are seriously looking at the bigger and deeper questions, so uniting more with political theorists for instance. This idea that we are coming up against real limits is a very frightening idea from the perspective of a certain idea of freedom rooted in liberal politics. We really need to rethink the meaning of freedom in an era of limits. My own feeling is that human beings are kind of hard-wired towards unlimitedness—but the world is now pressing us to interrogate this impulse. We don't do well with limits. But the fact of the matter is, we are not evolutionarily adapted to abundance, we don't even know what to do with abundance. We are squandering resources in the most absurd ways. So we really need to rethink what freedom is in a world of limits.

It's not all together a bad thing that we are facing these limits. Those of us who have at least the privilege of being well fed and reasonably comfortable, can actually turn our attention to this question of consciousness. Because this question of 'what is freedom' is a problem of human consciousness. Rather than turning our desire towards mastery—I think as human beings we have an innate desire towards mastery – rather than turning that desire onto the external world, we've pretty well mastered it; except turns out that we live in it so it's coming back to bite us and we are facing huge climate change most likely. When we shift the focus of this desire for mastery to our own psyches, then lots of things open up. And I don't think only people who live in industrialized countries need to do this or are doing this. One of the things I saw in my ecovillage book is that people living in developing countries are also quite aware of it and are doing it at the places they live as well. There is a global awakening, at least in small pockets, to the fact that we live within a limited Earth system and a serious inquiry into what it means to be a human being at this juncture between modernity and the Anthropocene.

Karen Litfin (Ph.D., University of California, Los Angeles, 1992) is an associate professor in the Department of Political Science at the University of Washington. She specializes in global environmental politics, with core interests in green theory, the science/policy interface, and what she calls “person/planet politics.” Her first book, *Ozone Discourses: Science and Politics in International Environmental Cooperation* (Columbia University Press, 1994), looks at the discursive framing of science in the ozone treaties. Her second book, *The Greening of Sovereignty in World Politics* (MIT Press, 1998), explores how state sovereignty is being reconfigured as a consequence of global environmental politics. Some of the topics of her recent publications include: the politics of earth remote sensing; the political implications of Gaia Theory; the relationship between scientific and political authority in the climate change negotiations; the politics of sacrifice in an ecologically full world; and holistic thinking in the global ecovillage movement.

Related links

- [Faculty profile at the University of Washington](#)
- Read Litfin's *Thinking like a planet: Gaian politics and the transformation of the world food system* (2011 book chapter) [here](#) (pdf)

- Read Litfin's *Towards an Integral Perspective on World Politics: Secularism, Sovereignty and the Challenge of Global Ecology* (Millennium, 2003) [here](#) (pdf)
- Read Litfin's *The Status of the Statistical State: Satellites and the Diffusion of Epistemic Sovereignty* (Global Society, 1999) [here](#) (pdf)
- Read Litfin's *The Gendered Eye in the Sky: Feminist Perspectives on Earth Observation Satellites* (Frontiers 1997) [here](#) (pdf)