

- Jim M.: We're going to get started. We want to make sure we have plenty of time for Q and A and our discussion.
- Jim M.: Welcome to the 2018 Roepke Lecture in *Economic Geography*. My name is Jim Murphy, I'm the Editor-in-Chief of *Economic Geography*, and on behalf of *Economic Geography*, Clark University, the Economic Geography Specialty Group ... Jennifer Clark is here, and Taylor & Francis, we're happy to sponsor and support this annual lecture that brings out the best and the brightest in our field.
- Jim M.: To start with, I'd like to thank Taylor & Francis for their support, and helping set up the logistics for the event. It's always a bit of a panic at the last minute, so we look like we're all good to go here, audiovisually.
- Jim M.: I'd also like to provide special thanks to Jennifer Clark for helping to facilitate the process of nominating and selecting and support to EGSG the Roepke lecturer. And Hilary Laraba, *Economic Geography's* Managing Editor, who's a vital person who basically runs the show, and makes this event happen every year, as well as other events that we do.
- Jim M.: Before I introduce Katherine, I'd like to also welcome Vicky Lawson, who's going to serve as our discussing professor at the University of Washington, and she's going to come right up after Katherine's remarks and give her discussion comments.
- Jim M.: So, it is really a great honor and a great pleasure to welcome this year's Roepke Lecturer, Professor Katherine Gibson from Western Sydney University. Katherine Gibson is internationally known for her research on rethinking economies as sites of ethical action. She trained as a human geographer at Clark, thank you very much, with ... She has expertise in political economy, and with her collaborator for over 30 years, the late professor Julie Graham, she developed a distinctive approach to economic geography, drawing on feminism, post-structuralism, and action research. The diverse economies research program they initiated has become a vibrant subfield of study within the social sciences.
- Jim M.: In the late 1990s, the collective authorial voice of J.K. Gibson-Graham led the critique of capitalist-centric thinking that was blocking the emergence of economic possibility. *The End of Capitalism (As We Knew It): A Feminist Critique of Political Economy* was published in 1996, republished in 2006 with a new introduction, and named a classic in human geography by *Progress in Human Geography* in 2011.
- Jim M.: The Community Economies Collective, which Gibson-Graham established, is an ongoing collaboration between academic and community researchers and activists, in Australia, North America, Europe, and Southeast Asia. The goal of the collective is to theorize, discuss, represent, and ultimately enact new visions

of economy. By making multiple forms of economic life viable options for action, the Collective aims to open the economy to ethical debate around concerns such as the survival needs of humans and the earth, and earth others, the distribution of surplus that supports wellbeing now and in the future, encountering others via just transactions, enlarging and sharing our commons, and investing in futures that sustain us all.

Jim M.: Prior to joining Western Sydney University, Professor Gibson held other positions and [inaudible 00:03:35] at the Australian National University, and the national university, and she has developed action research projects with communities interested in alternative economic development pathways in Australia, Papua New Guinea, the Solomon Islands, and the Philippines.

Jim M.: And on top of this, as you all well know, 12 books ... I couldn't really count that high with the number of publications and book chapters. Lots of grants.

Jim M.: But I just wanted to close by mentioning her most recent book, which is co-edited with Gerda Roelvink and Kevin St. Martin, entitled *Making Other Worlds Possible: Performing Diverse Economies*. It's University of Minnesota Press, in 2015. And also to mention the book that was published in 2013, which is *Take Back the Economy: An Ethical Guide for Transforming Communities*, that was co-authored with Jenny Cameron and Stephen Healy.

Jim M.: It's really such a fantastic honor, and long overdue, to have Katherine be here. And I'd like to welcome her as the [inaudible 00:04:30]. Thank you.

Katherine G.: Well, thank you very much. It's really a great honor to be asked to present the Howard Roepke Lecture in 2018, and welcome to everybody here. And I'd like to thank James Murphy and the editorial board of *Economic Geography*, and to all the people who've put my name forward for this invitation.

Katherine G.: It's especially an honor to be asked to present to you all here, as I'm an antipodean geographer from Australia, though one who of course has shared an academic persona with an American, and who has been a member of the AAG since my graduate school days at Clark University in the late 1970s.

Katherine G.: So, the last time I was in New Orleans was in 1978, when I attended my very first AAG conference. I traveled ... I took the photo, I'm not in there. I traveled for 36 hours nonstop in a van, with fellow Clark graduate students, including Ruth [Fincher 00:05:45], Jim Lyons, and Chris [inaudible 00:05:48] who has the uber bellbottoms on over there, and a few [inaudible 00:05:52] that we picked up along the way, including my old friend and comrade Neil Smith in the back row, characteristically holding a drink.

Katherine G.: Many of us in that van, but not- by no means all, were studying Marxist theory in our graduate courses, and in the meetings we held our own little mini-conference on economic restructuring. We saw ourselves as the radical

outsiders, keen to tilt at the windmills of establishment geography. I remember peeking into sessions on Soviet geography with Jim Lyons, who was trying to pick out who were the CIA agents. So, it's somewhat of an irony to find myself now, 40 years later, as part of that establishment, though one, I think, that's decidedly more feminist, thanks to Jen [Monk 00:06:40] and many others giving this lecture in this same location. And I hope that I still have the ability to tilt at windmills a little.

Katherine G.: Well, in researching Howard Roepke in preparation for this lecture, I discovered a few points of connection between he and me. One was his fascination with research in the coal industry. The other was his interest in addressing what he called the collective inferiority complex that geography, and especially applied geography, suffered.

Katherine G.: In an article that he published in *Geographical Review* in 1977, Roepke produced a summary of debates that had been held at a symposium on applications of geographical research at Michigan State University earlier that year. He mentions that one of the plans for the next year's 1978 AAG meetings in New Orleans was for participants of the symposium to take the lead in developing sessions on applied geography. No doubt these were the sessions that the ragtag radical geography students, or grad students, of which I was one, were to scornfully dismiss as catering to the interests of capitalism.

Katherine G.: Certainly at the Michigan State symposium, Donald [Deskins 00:07:52] Jr. noted that applied geographers are responding to the demands of the marketplace. But William Pattison, ever the contextualizer, I remember his article on the four conditions of geography, he suggested that the discipline of geography is perhaps entering a new phase.

Katherine G.: "The first phase, involving much of the early descriptive work, was one simply of presentation;

Katherine G.: "The second, involving quantitative research and model building, was one of investigation;

Katherine G.: And, "Now," he said, "we may be moving into a third phase, that of intervention."

Katherine G.: Howard Roepke concluded that, "What is needed is for geographers to study obvious problems." And, by the way, there is no need to search for problems. Many already existed, and are recognized by everyone, he said. And that "geographers should be bold enough to advocate the solutions that their research indicates would be useful.

Katherine G.: "Timidity or obscurity in reporting results, rather than lack of relevance, he emphasized, has hampered recognition of the utility of geography."

- Katherine G.: Well, never one to be too timid, or to enjoy obscurity, I'd like to take up an obvious problem, and attempt some bold advocacy.
- Katherine G.: I'd like to broach the question of what kind of economic geography should we be doing in the Anthropocene? And I'll do so from a decidedly applied starting point, asking what kinds of manufacturing processes and enterprises will help to address the planetary challenges currently facing us?
- Katherine G.: And before I get into the main part of this paper, I'd like to both enroll the help of a lot of people who I've learned so much from, but also dedicate this lecture to their memory. There're some wonderful economists, economic geographers, activists, philosophers, and pure theorists. And of course, Julie. These people helped me think the things that I think today, and they're continuing to do so.
- Katherine G.: Okay. Manufacturing: a Matter of Fact. Manufacturing has been a key focus of study in economic geography over the past century, in terms of Pattison's characterization, early geography focused on describing location of specific manufacturing centers. A second phase of content research applied models of least-cost location to attempt to explain the special distribution of manufacturing activity. By the time I started graduate school in the late 1970s, the growing internationalization of production capital was beginning to undermine the robustness of the models of national industrial location, and economic geography was challenged to come up with new theories.
- Katherine G.: So, my research career began when the post-war manufacturing growth phase was faltering in developed economies, and economic geographers were turning their attention to the relocation of manufacturing plants and jobs to low-wage areas off-shore, and to non-industrial low-wage regions within the national polity. The first joint paper that Julie Graham and I wrote was about the demise of paper and machine tool manufacturing in the New England region of the US, and it was based on interviews that we conducted in Fitchburg, Massachusetts. I must thank [Dick Paton 00:11:25], I'm not sure if he's here now, for his flexibility in accepted a jointly written graduate paper that semester. It whet the appetite then for a long-lasting collaboration.
- Katherine G.: What Julie and I and others at Clark spent many years theorizing the relationship between falling rates of profits in manufacturing sectors, and structural change in the organization of production. Trying to update classical Marxist theory to understand unevenness and variation at a sectoral level within capitalism. This was our first understanding of economic difference, that is, the uneven coexistence of what we call competitive monopoly and global capitalist forms of organization, at the level of manufacturing sectors.
- Katherine G.: At this time, applying Marxist economic theory was seen to be quite radical in economic geography, but it became increasingly accepted, especially when capitalist dynamics, married with long wave theories of technological revolution were theorized as regimes of accumulation.

- Katherine G.: We could represent [inaudible 00:12:37] and the ensuing decades as approaching manufacturing as a matter of fact, to use Bruno Latour's language. The task was to track the changing facts of manufacturing to critically reveal the underlying conditions, that is, the dynamics of capitalist accumulation that made them possible. By the 1990s, the political economic approach to economic geography had become more or less mainstream. Each new edition of Peter Dicken's *Global Shift* traced the ever-changing acts of global production.
- Katherine G.: At one point around the mid-1980s, Julie and I gave up on trying to keep track of these matters of fact. Having been trained to focus on the ever-inventive shenanigans of Capitalism with a big C, or because this would help us change the world, not just understand it, we decided that we couldn't keep waiting for the revolution. A pivotal moment ... [crosstalk 00:13:43] not appreciated by many, including Emmanuel [inaudible 00:13:50] and [inaudible 00:13:50] Mendel who had to view the first version of that title, at the Rethinking Marxism Conference. I was cringing as Julie [inaudible 00:13:55].
- Katherine G.: A pivotal moment for me occurred in the mid-1980s. It was at a time of global restructuring of the auto industry, when car production by foreign owned companies in Australia was being threatened with closure. I was listening to an address given by the Australian trade union leader, communist, and class warrior Laurie Carmichael, and he was putting the case for workers to join in and get our bit of the world car for Australia.
- Katherine G.: My research on the reconfiguring of capital accumulation was no news to unionists such as Laurie and the research office of the metalworkers' union. What was confronting to me was that my, and their, critical Marxist analysis did not contribute any kind of strategy for transformation. The pragmatic approach was to get a part of the pie for the members, and not to concede union power. Admittedly this meant winning many concessions from powerful industry players, especially in the area of workplace training and career paths for workers.
- Katherine G.: But this lack of imagination about what was to be done led Julie and I to change tack, and start to interrogate the kinds of representations we were producing, and their effects, proposing to largely deaf ears that radical economic geography was helping to shore up capitalist hegemony, and not to dismantle it.
- Katherine G.: We had great troubles trying to come up with a cover for the *End of Capitalism*, an image. Blackwell came up with this very kind of Germanic, Marxist looking cover, with Sisyphus rolling the stone up the hill, only to come rolling down on him. We wanted a picture of a juggernaut, but we couldn't quite find one. But, I love the way the Turks came up with this other image many years later in the translation. The robotic machine cyborg eating up people and the world, and Julie and I as the Davids casting our slingshots into the Goliath. I think they got the message.

Katherine G.: So, we began to deconstruct the hegemony of capitalist-centric discourse, showing how it was preventing research on non-capitalist economic practices and organizations that had something to offer in terms of economic experimentation. We embarked on what was to become the diverse economies research program, and became enmeshed in action research projects with communities that were being bypassed by capital investment and jobs growth, and this is just one of the representations of the diverse economy where ... what most of us in economic geography are focusing on is that top [inaudible 00:16:45] cells, but what were interested in was always sort of the richness of economic activity.

Katherine G.: Our forays into action research saw us diving deep down under the waterline to work on imagining and enacting community economies. And at this point, we kind of left the study of mainstream manufacturing behind.

Katherine G.: So, I'd like to just fast forward now to the last decade, and to suggest that manufacturing has become a matter of concern, certainly in those nations like Australia, where manufacturing industry policy, which had been kind of abandoned, is now back on the national agenda.

Katherine G.: According to Bruno Latour, to take up matters of concern means directing attention away from criticism and debunking, that is, in the case of economic geography, away from revealing the ever-inventive inner workings of capitalist accumulation. It means turning towards a stubbornly empiricist approach, that seeks to add rather than subtract meaning to the world. One that protects and cares in some way.

Katherine G.: As the editors of the 2015 *Handbook of Manufacturing Industries in the World Economy* argued, since the GFC in 2008, there's been a greater appreciation of manufacturing and the role that it plays in a balanced economy. The volume of research reports and visioning exercises that has occurred since 2008 is evidence of how manufacturing has become a matter of public concern.

Katherine G.: In Australia, the concern for the future of manufacturing is linked to the end of the resources boom, and the evaporation of the economic growth that it prompted. Most recently, the outcry about manufacturing futures has been provoked by closure of all the car manufacturing plants in the company, with the shedding of 200,000 between 2008 and 2015. Just a few weeks ago, the last foreign-owned plant finally closed. The 1980s agreement that I was witnessing, by which Australian workers got a share of the world car, is now irrevocably over. And Holden is the name of the Australian GM plant, producing an Australian, Aussie car, which of course was an American-owned car.

Katherine G.: As anxious concern for the future of manufacturing, and this anxious concern for the future of manufacturing is fueling attachment to technoscientific solutions to revitalizing industry, and getting on top of the league's tables for robotization, nanoscience, AI, and algorithms, etc. Manufacturing as a matter of

public concern is expressed as a worry about jobs for a national, largely male, workforce worried about keeping at the forefront of innovation, and worried about getting our bit of a new economy pie.

Katherine G.: In public debate, the animating questions are, do we need a manufacturing sector? What makes manufacturing viable? How should policy assist the manufacturing sector? And it was in this context of handwringing and panic about whether we would ever make things again in Australia, that my colleagues and I were awarded an Australia Research Council grant to conduct qualitative research on manufacturing enterprises. I want to present some of the early findings of that work in the remainder of this lecture.

Katherine G.: And here, I want to acknowledge some of my co-researchers, Stephen Healy and Joe McNeill, who are both here, and who will be presenting more of the findings of this research tomorrow, in a series of sessions. The Diverse Economies and Liveable World sessions.

Katherine G.: But before I go on to talk about that research, I want to set the stage for our inquiry, and give you a sense of what our concerns are as researchers, and this extends to what we see as the primary challenges facing manufacturing futures, not only in Australia, but in the world.

Katherine G.: As Howard Roepke pointed out in his 1977 discussion paper, there is no need to search for obvious problems, they find us. And they call for a bold approach to advocating solutions. Or, as I'd rather frame it with less modernist certainty, a bold approach to advocating pathways forward.

Katherine G.: Today we've been found by the biggest set of problems imaginable, the interconnected problems of climate change and rising inequality. Manufacturing as we've known it is at the center of these concerns, and is deeply problematic on two fronts.

Katherine G.: The science is now in, a strategic signal has been identified that sets off a new geological era from the Holocene. The horizon occurs around the 1950s, and it's marked by the appearance of manufactured materials in sediments, including plastics, aluminum, and concrete, and coincides with global spikes in fallout, radionuclides, and particulates from fossil fuel consumption.

Katherine G.: Plastic, aluminum, concrete, fuel particulates. These manufactured materials are very familiar. They're what we drink from, what we live in, what we move with. In all the agitated debate about what we should call this geological era, contentiously named the Anthropocene, or the Capitalocene, or the Plantationocene, or the [inaudible 00:22:47], perhaps we should add the Post-War-Manufacturing-ocene.

Katherine G.: Manufacturing is a key player in the critical zone where life and non-life interact to produce the conditions of existence for more and different life. The critical

zone is the skin of Gaea, that spot on the envelope of the biosphere, where living organisms and the Earth's rocky surface interact to create the habitats that determine the availability of life-sustaining resources. Latour suggests that it's in this critical zone where some of the most pressing problems of our age can be parsed, and where the actions of humans can be radically reshaped to compose our common world differently.

Katherine G.: He writes, "To trace the nitrogen cycle might bring you just as quickly to enter a (human made) factory as following (nature made) calcium release from rock would lead you to study some regulations imposed by forest engineers who had read new textbooks on soil management."

Katherine G.: The bits of plastic and concrete and aluminum, these artifacts of manufacturing production that have insinuated themselves into the sedimentary record, are traces of an elaborate assemblage of material and social relationships that's burgeoned exponentially over my lifetime.

Katherine G.: Since the 1950s we've seen what Will Steffan and colleagues have dubbed the Great Acceleration, echoing here Karl Polanyi's *The Great Transformation*. Here, he shows this in this article, *Trends in Earth Systems from 1750 through to 2010*. Manufacturing is heavily implicated in these biophysical changes that have fueled the Great Acceleration. In each of these graphs, manufacturing is implicated in some way. And it's also what has fueled the prominent rise in economic activity and resource consumption that coincides with the rise of human-induced global warming.

Katherine G.: These rising trends coincide with decades of massive wealth generation, and some wealth redistribution, at least within those countries where national policies have been informed by socialist and social democratic values. But more recently, there's been decades of wealth polarization informed by the neoliberalization of everything.

Katherine G.: Manufacturing has thus, is implicated in the other related, obvious problem of our time, growing inequality and wealth polarization. As Piketty's graph shows, the period of the Great Acceleration coincides with 25 years or so of a more kind of stabilized wealth sharing, as roughly indicated by a declining share of income going to the top 10%, there from the 1940s and the 1950s through to about the 80s. And then, a turnaround and a marked rise from the mid-1980s on, and as a rough indication of growing inequality.

Katherine G.: So, here we have the two obvious problems at stake when thinking about the future of manufacturing. Is it to continue to contribute to planetary climate instability and environmental degradation, or not? Can manufacturing and the kinds of consumption practices it fosters be part of a solution to global warming? And is it to continue to contribute to growing disparities in wealth distribution? Or can manufacturing enterprise help to produce a more equal society?

- Katherine G.: These two sets of problems and sets of issues are encapsulated in the idea of just sustainability, that's been coined by Julian Agyeman. We cannot be indifferent to the obvious problem of manufacturing in the age of the Anthropocene. The challenges of the Great Acceleration and the neoliberalization of everything are spurs to action. Neither are necessarily a done deal. And this means, I think, that we must add the practice of care to our concerns.
- Katherine G.: But geographers have long pioneered a form of engaged social science, in which a care ethic has been legitimately placed at the center of scholarship. Here, I thank Vicky for powerfully representing this reflection to the discipline as a whole in her AAG presidential address, Geographies of Care and Responsibility. In this address, and in the paper, she argued for the importance of linking political, economic, and emotional geographies, and not banishing from the economic research questions, questions of care, affect, and concern.
- Katherine G.: The challenge of taking care into the dry realm of economic analysis has been pioneered by feminist economists and geographers, most recently, or mostly with reference to highlighting the often ignored practices of care performed in the domestic, neighborhood, and civic realms. Certainly in the work that J.K. Gibson-Graham and members of the Community Economies Collective have done on reframing and taking back the economy, the issue of care has been central.
- Katherine G.: The project of building ethical economies based on recognition of the radical heterogeneity of economic practices, has centered on negotiations around caring for the wellbeing of people and the planet. Our theorization of community economies seeks to expose the coexistence of myriad relations of sustenance that enroll forms of ethical deliberation, or ethical doings.
- Katherine G.: We've particularly focused on this set of concerns that Jim actually mentioned before, laboring to survive well together with other humans and with the planet, distributing the surplus that is generated by working together in all kinds of enterprise, transacting in ways that produce ethical encounters with all others with whom we're interdependent, commoning the gifts of the earth and the human creations that sustain us, investing responsibly in futures, and of course, consuming sustainably.
- Katherine G.: Community for us is an empty space of possibility, wherein bidding in common is actively negotiated, and here we've taken from the work of Jean-Luc [inaudible 00:29:41], his theorization. Community is something that is continually being made and remade. It's boundaries are fluid, its ethical commitments are continually being challenged and evolving.
- Katherine G.: More recently, and in multiple collaborations, we've sought to bring more than human ecological relations into this expanded economic space of becoming. We've challenged ourselves to think of being common as a multi-species human

and non-human community. A we that includes all of those with whom human livelihoods are interdependent and interrelated.

Katherine G.: In extending care to the non-human world, we've been inspired by the work of Maria Puig de la Bellacasa, for whom the idea of a care ethics goes beyond a moral disposition or a well-intentioned attitude. She argues that an ethics of care involves a different dispositional inflection than being concerned, although maybe these two things need to be held in productive tension. Care involves seeing with our fingers, a kind of acknowledgement that when we care about things, the layout of the manufacturing floor, microbiomes, babies, we touch, and are touched by them.

Katherine G.: And as I talk here, I want to show some slides that are part of our documentation of hands at work, showing the role of touch in manufacturing, and in the economy at large.

Katherine G.: It's worth remembering that the term manufacturing comes from manos, the Latin for hands, and facere, to make. So, hands making. And note that the stem word for -fature, factum, is also the origins of fact, something that we also make.

Katherine G.: Marx made a lot of the distinction between manufacture, which he associated with craft production, and machinofacture, which he associated with modern industry. This distinction signaled a marginalization of the hand, the human hand, in the process of production. Today, current theorists of the workplace point to the shift from machinofacture to robofacture, and perhaps soon to be replaced by algorithmfacture. And further marginalization, as if it were a fait accompli, of the role of the hand, with its very human capacities for hand, eye, brain, aesthetic coordination in making.

Katherine G.: But how we work with materials is an ever-evolving experimental process of ethical doing. That is, how robots, algorithms, and other elements of advanced manufacturing interact with fingers, with hands, with touch, and care, is an open question. To approach manufacturing as a matter of care is to pay attention to how our material entanglements with things are or are not sustaining life. It's to attend to the work of doing care, and who or what is being cared for.

Katherine G.: In their 2016 Progress in Human Geography paper, Geographies of Making, Chantel Carr and Chis Gibson urge us to consider how humans manipulate materials, compose objects, and construct economies and societies around material things, as well as how this might be done differently.

Katherine G.: We have been inspired by this challenge. In our research on manufacturing, we have selected companies to study because they seemed to be doing some things differently. They seemed to be caring in some way. We sought out enterprises that are moving towards achieving just sustainability, looking for

experimental interventions, action researches, if you like, taking place within manufacturing enterprises.

Katherine G.: Over the last two years, we've been observing production processes and interviewing multiple people from 10 different manufacturing enterprises, including private capitalist companies, cooperatives, and social enterprises with operations in metropolitan and regional New South Wales. Our objective is to identify elements of a new vision where manufacturing is a site of problem solving for planetary challenges.

Katherine G.: So, in the remainder of this lecture, I want to tell four stories from our research about carpets, chaises, milk, and mattresses. All rather mundane materials that sustain us. In each story, I'll start with a symptomatic quote that identifies one element of this kind of vision of manufacturing as a site of problem solving. I'll briefly sketch out something of the context of each firm, and then zoom in on a critical incident, or a period of crisis, when each enterprise faced possible failure or closure. We're interested in these critical incidents, as they're moments when an explicit caring response is provoked, when ethical negotiation is practiced, when assemblages are tinkered with, and they shift and resettle into new forms. There's no necessary logic that motivates the action, but a myriad of cares, investments, and visions.

Katherine G.: So, first, to Interface Carpets. And the quote: "People think, okay now it's circular economy and then they might forget about low-carbon economy, and then they might forget about bio-based economy, and they might forget inclusive economy. Okay, you can discuss about the order, whatever, but it's and, and, and. That's the whole point. Only when a company can contribute to all those elements do I think you have this license to exist."

Katherine G.: Interface is a US-owned company that is the world leading maker of carpet tiles for offices and institutions. It was started by businessman Ray Anderson in Atlanta, Georgia in 1973, and it entered Australia in 1980 when it took over the Dutch-owned [Kudo 00:36:13] carpet manufacturing plant that had been established south of Sydney in the 1950s with state subsidies for industry decentralization.

Katherine G.: Interface is famous for its commitment to environmental sustainability, ever since Anderson, after reading Paul Hawken's *The Ecology of Commerce*, had his sustainability epiphany. With input from an eco dream team made up of pragmatic philosophers and biomimicry experts, Interface adopted a visionary plan called Mission Zero. It aimed to reduce any negative impact of their production on the environment by 2020. They abandoned the linear take, make, waste model, and redesigned production along circular economy lines, as Anderson said, harvesting yesteryear's carpets and other petrochemically-derived products, recycling them into new materials, and developing new bio-based synthetic carpet.

Katherine G.: Anderson's passionate embrace of sustainability took the company well beyond lip service to the triple bottom line. Says the former Australian CEO, "The stories you hear in the business were that when he first started to communicate this sustainability agenda, say to Wall Street, Wall Street, they really thought he'd lost his mind. He used to raise that subject on occasions and the share price would go down afterwards. But we're talking in the nineties, yeah. Then it became an advantage. So, you go from being a heretic and a complete lunatic, to actually you're in the leadership position."

Katherine G.: At the Australian plant, a critical incident occurred in 2012, when the company was working at full capacity. An electrical fault at the Picton plant burned the whole factory down in a few hours on a Friday night, destroying a new billion-dollar loom that had just been installed. On the Monday after the fire, management met with the workforce and guaranteed all of the permanent employees at least 12 months pay. This was a humane decision, a caring one made incredibly quickly, as the CEO at the time said, "While we work this through this, and we'll have a process of discovery of exactly what we're going to do ... " and it was also a business decision. "We knew that to start up the new plant, we needed to retain the skills of our people, because carpet manufacturing or textile skills are very thin on the ground in Australia these days."

Katherine G.: While a new site was found, employees were enrolled in helping with the design of the new set up. Production workers moved temporarily into customer service. Others did community projects in and around Picton, and all of them were on full pay. When the new plant was opened in Minto on the outskirts of Sydney a year or so later, some a half to two thirds of the original employees stayed on. And others chose to find employment closer to home around the Picton area.

Katherine G.: Today the company is 95% to on the way towards reaching the target set by Mission Zero. One way Interface is combining the agendas of environmental care and people care is by reorienting production and installation of carpet around the reuse of carpet tiles, rather than the more energy-intensive recycling of materials. So, for example, their Netherlands plant is pioneering collaborations with the social enterprise that employs people at a distance from the labor market, who do the work of picking up, cleaning, and redistributing the reused carpet tiles.

Katherine G.: Interface is now working on a new vision, called Climate Takeback. The objective is not just to reduce harm, but to produce positive good. To help to restore the environment as well as address inclusion. The Australian plant, which employs about 250 people, will be piloting the factory as a forest part of this strategy. The CEO readily admits that they have no idea how exactly they're going to proceed, but it fully committed to trying, as he knows that, to paraphrase Maria Puig de la Bellacasa, things can be different, if a commitment to care is placed at the center of all operations.

- Katherine G.: Okay, let me move onto my second case, Varley Engineering. And here, the quote is: "It's not just the business, it's our Varley culture, our way of how we want to run the business."
- Katherine G.: Varley is the oldest firm in our study. It was founded by George Henry Varley in 1886 in Newcastle, the industrial [inaudible 00:40:54] to the north of Sydney. It was founded to do ship repairs. The CEO likes to emphasize how Varley is a private company that is family owned, rather than your usual family-run business.
- Katherine G.: Today it's one of Australia's major engineering and manufacturing companies, producing defense and aerospace equipment and specialist vehicles, such as ambulances, [inaudible 00:41:20] vans, fire trucks, rescue vehicles, and electric vehicles. It also provides rail, power, and maritime maintenance services, and employs 600 people operating in multiple locations around Australia and overseas.
- Katherine G.: Over the years, the company has developed its capacity to provide engineering solutions that draw on innovative and iterative designs worked out in close collaboration with customers. It's successfully leveraged its skilled workforce of both shop floor trained and university trained designers and engineers. Many of the older employees grew up in the Hunter region, that industrial area north of Sydney, and gained their first experience in the BHP steelworks and shipyards.
- Katherine G.: The critical incident that challenged Varley to the core occurred in the late 1990s and early 2000s when the company faced closure. The workforce had contracted to 60 employees, and the bank had taken over its administration. The family business was about to go under.
- Katherine G.: At that point, an in-law of a third generation relation of the founder, who was much younger than the existing CEO, was invited in to drastically reorganize the business. That's just to show the family's embeddedness in the geography of that region.
- Katherine G.: He cut back operations, reduced overheads, identified, as he said, "what was working well and what wasn't and what markets in the future were still going to be around and still going to be worthwhile us remaining in." Care for the firm's continuance meant taking some hard decisions. The family ownership of this company remained important, however. For one thing, it afforded an independence from investment dynamics mediated by the stock market.
- Katherine G.: In the 2000s, predatory asset stripping had taken place in this sector. As one manager put it, "Superannuation funds were looking for a quick dollar. Many of Varley's competitors signed up all these contracts real cheap to try and make the business look good to sell, and then the business starts to run out of cash and fails." Varley was able to benefit by acquiring some of these failed companies.

- Katherine G.: Reflecting on the freedom from the stock market, the CEO talked about not being "worried about what my share price is reading at the moment, or about what some analyst is predicting is going to happen to us in the future, or being told by other people out there that our overhead ratio is too heavy for this, or I'm not returning enough, or I shouldn't be investing in this or that."
- Katherine G.: Along with this independence, the Varley culture is associated with a real respect for the specialist skills that have been built up within the firm. In the words of one business manager, he said, "That's one thing Varley do have. It's people are human beings, and do we really need- can we get through this as a team? You've got to give them credit to it. That may be one of the things that has kept the place together. It has a reputation in that. The senior staff are loyal, too. Those people are committed."
- Katherine G.: It also has a deep-seated commitment to the long term. To "positioning ourselves and giving the customer the best we can, because we know they're going to be living with that product for 15, 20 years. The least we want is someone saying, who built that? It doesn't work, or that it broke down."
- Katherine G.: Okay. My second but last. NORCO, and the quote here: "Globalization has served its purpose and made us all aware that we need to change and move forward, but it doesn't mean that we need to abandon our own."
- Katherine G.: NORCO Dairy is a farmer-owned cooperative in northern New South Wales that's been going for 125 years. The enterprise consists of 220 dairy farmers who form the producers' cooperative, 34 co-op owned rural supply stores, and three manufacturing plants producing packaged fresh milk, milk, butter, and ice cream, and employing around 800 people, the majority full-time. Today it has close to \$1 billion in sales per annum, pays farmers the highest gate prices for raw milk, and above [inaudible 00:45:43] wages for factory floors positions in its three plants.
- Katherine G.: Its current viability is attributed to lean production principles in its processing factories, customer relationships that it's built up with organizations like the national supermarket chain Coles, and reputational trust that they have with farmer members and customers in the region.
- Katherine G.: A critical period for the co-op was in 1999, in a time when the milk industry was being deregulated and increased mergers and takeovers in the food industry posed huge threats to survival. At this point, a farmer member of the board who cared for cooperative values assumed the chairmanship. Internally, though, the board were divided between those who, like the previous chairman, "wasn't overly co-op minded. It was more about, how do we actually get this beast to a listing and actually get rid out of all the farmer directors and move away from the cultural issues of the cooperative?"

- Katherine G.: Farmer members were also divided over whether to sell out or stay as a co-op. To keep afloat, NORCO strategically entered into partnerships with the largest industry players on the planet, the multinational milk marketer Parmalat and Fonterra, the New Zealand dairy multinational that is a cooperative in name only. The expectation was that they'd be absorbed, but in both cases they were able at a later date to strategically and lucratively withdraw and rekindle allegiance to cooperative values.
- Katherine G.: Ever since then, the CEO has pursued a slow strategy of expanding access to those values. As in any democratically run organization, the challenge is to continue to align the cooperative values of serving the members' needs for a stable livelihood, with company strategies for survival in a cutthroat global market for milk. NORCO's ice cream manufacturing factory in Lismore is a key stabilizer of company income, as it continues to produce over the year using stored inputs that can smooth out the seasonal fluctuations in milk sales.
- Katherine G.: The cooperative ethos of care that was rekindled extends beyond NORCO's farmer members. Just 24 hours into the devastating 2011 Brisbane flood, NORCO had offered to supply milk to Queensland while competitor Parmalat's flooded Brisbane factory was unable to produce.
- Katherine G.: NORCO's survival involves constant negotiation and renegotiation with industry competitors and members. The age of the farmer members, with many reaching retirement, is a major consideration. Some are attracted by the idea of selling their milk production licenses to the highest bidder and pulling out of the producer cooperative. So, in order to address this, NORCO has facilitated succession planning involving younger farmers taking on production, while older farmers remain on their farms. There's more on this case, actually, in the paper that Stephen will be presenting tomorrow.
- Katherine G.: Lastly, then, to the last case study, Soft Landing. And here, the quote is: "I could tell you 100 different decision points where we could have gone this way, or could have done a dodgy there, or could have cut a corner there, and we've just said no."
- Katherine G.: Soft Landing is a national social enterprise operating across the New South Wales, the Australia Capital Territory, and Western Australia. It recycles mattresses that otherwise get dumped. It was originally established by a charity, Mission Australia, just north of Wollongong, just south of Sydney, at a time when Wollongong City Council had introduced dumping fees at its landfill sites. Suddenly, old mattresses started to be left illegally at the charities clothes bins, and this provoked a new business idea.
- Katherine G.: Some 1.6 million mattresses are destined for landfill each year in Australia, from households, but also hospitals, hotels, and motels. Soft Landing has a social mission to employ groups of people who face barriers in the labor market, such as aboriginal people experiencing disadvantage, and [inaudible 00:50:01]. Its

environmental mission is to recover the mattress components. The steel is melted down for reuse, the wood is shredded for garden mulch, the fabric is manufactured into products such as [inaudible 00:50:15] blankets, weed suppression, and soil stabilization matting.

Katherine G.: The national manager of Soft Landing admits that the waste industry is cutthroat, but this enterprise was able to become the premier recycler in the sector by building up good relations with mattress manufacturers who had become increasingly concerned about the environmental impact of their product.

Katherine G.: A critical issue occurred in the early 2010s, when a new private recycling company attempted to take Soft Landing over just as the social enterprise was seeking to grow nationally, but was having troubles getting financial support from Mission Australia. The private company had state of the art automated machinery, and was eager to corner the Australian market. At national waste management conferences, this company would talk about the efficiency of its process, and its minimal labor inputs, and then Soft Landing would come and do another paper demonstrating how its enterprise created jobs and still ran a profit. They appeared to be key rivals.

Katherine G.: Keeping true to their social mission, Soft Landing negotiated becoming part of a larger social enterprise focused on waste management and recovery, called Resource Recovery Australia. What they then did was broker a partnership with their private sector competitor, whereby standard mattresses would go to the private automated process, and more difficult, non-standard mattresses would be taken by Soft Landing.

Katherine G.: As the national manager explained, "It's still a partnership. We'll be the front face, we'll do the collection, we'll be the social enterprise, we deliver to you the volume of matts that can go through your machine, and you push the button on and the widgets and whatever go. Great. We'll keep some matts aside for our guys that are existing. We want a net gain in jobs, so we don't want to lose any jobs. We want more jobs."

Katherine G.: Soft Landing has also taken the lead as an administrator of a national mattress industry product stewardship scheme. This involves suppliers, manufacturers, retailers, and recyclers. It's a business model that involves for-profit and not-for-profit businesses, and collaboration rather than competition. Soft Landing has been able to take the lead as they're not in the business for private gain, and partners and other stakeholders have the confidence to entrust them with administering across this competitive space. And there'll be more on this story in Joe McNeil's paper tomorrow, and the latest is that Soft Landing has actually taken over [Tics inaudible 00:52:49], the other private company. Things move on.

Katherine G.: Okay, let me just make a few comments about these case studies before concluding. The stories that I very sketchily presented give a glimpse of a diverse group of enterprises that are experimenting and negotiating their way towards the dual goals of just sustainability.

Katherine G.: There are a number of things we can learn from each of these manufacturers. On the one hand, these firms are doing no more than all the shoulds that are emerging from numerous large scale surveys and research reports being conducted by concerned parties. They're being strategic, globally connected, customer focused, service oriented, and bespoke. But they're doing more than staying at the cutting edge of business as usual. I'd like to suggest that they're pushing the envelope, maybe even prototyping a new kind of business model, one in which direct commitments to planetary and human survival and care play a decisive role.

Katherine G.: As Varley, Interface, and NORCO demonstrate, these enterprises have worked out ways to operate at some distance from private shareholder primacy, arranging capitalization to meet long-term commitments. As we see with Interface and Soft Landing, a complex ecosystem of interdependence is developing between privately owned, for-profit companies, and not-for-profit social enterprises along the value chain. Nodes of skilled and unskilled labor intensity, of automation and hands-on designing, making and unmaking, occur at different points around the circle of product production, service, reuse, recycle. And these nodes are differently linked to allocations of surplus to ecological care and/or social care.

Katherine G.: As we see with Varley and NORCO, enterprises are enacting commitment to the long term, and to people and their skills in place. Varley draws down and replenishes an industrial knowledge commons that was built up in Newcastle, but has spread throughout its network of plants. NORCO is manufacturing in a highly competitive dairy market in order to defend the knowhow of its dairy farmers, and an ethos of cooperation that has a century-old lineage. It's ensuring that this ethos is passed down the generations. Interface is creatively struggling with how to repair our global commons, and Soft Landing is ensuring that the most disadvantaged in our communities are participating in and benefiting from care for our precious world.

Katherine G.: We're seeing glimmers of new cultures of production in Australia. How to project these glimmers onto a larger screen and enroll government and wider community support for these kinds of manufacturing futures is still a task at hand.

Katherine G.: Finally, then, in conclusion, let me return to the broader question of future directions for the study of economic geography in the Anthropocene. And here, I'd like to see us think along with Donna Haraway, of the Anthropocene as more a boundary event than an epoch. She writes, "The Anthropocene marks severe discontinuities; what comes after will not be like what came before. I think our

job is to make the Anthropocene as short/thin as possible, and to cultivate with each other in every way imaginable epochs to come that can replenish refuge."

Katherine G.: In a world where the next generation of business leaders see the business as usual model as the major barrier to challenging climate change and global inequality, it seems that theorizing possibility is much needed. I see an important role here for economic geographers.

Katherine G.: Paul Hawken, who was the inspiration for Interface Carpet's reorientation towards earth repair, recently published the book *Drawdown*, based on the work of a large international research network. It showcases a hundred scalable climate solutions, that is, practices with the greatest potential to reduce emissions or sequester carbon from the atmosphere, along with detailed climate and financial [inaudible 00:57:15] for each.

Katherine G.: The claim is that they all lead to regenerative economic outcomes. The book doesn't shy away from the fact that [inaudible 00:57:26] of these have spillover effects that are clearly detrimental to human and planetary health, but all contribute to some kind of habitat repair and ongoing care. Hawken and his colleagues have taken on the obvious problem of our age, and are being bold enough to advocate solutions that their research indicates would be useful. They're not being timid.

Katherine G.: I'd like to urge fellow economic geographers to take up Howard Roepke's advice, and do likewise. What our case studies provide is a step down from the big initiatives Drawdown outlines, to the detailed negotiations around wellbeing and viability around setbacks and failures in one particular sector of activity: manufacture, the making of materials that support human life. Our cases help to uncover what it takes for very specific enterprises and production processes to continue to sustain livelihoods and habitats, to remain financially viable, and care for an industrial commons that has the potential to nourish people and the planet.

Katherine G.: And I'll finish there. Thank you very much.

Vicky L.: Hello everybody. My name's Vicky Lawson. It's a deep honor to get to comment on Katherine's lecture today, because her work, along with collaborators Julie Graham, Stephen Healy, Jenny Cameron, among others, has been deeply inspirational for me. Your work has been liberatory for geographers creating the conditions of possibility for both a feminist and a more than humanist economic geography. So, I have to just take a moment and publicly thank you for the work that you do. Thank you.

Vicky L.: I have to keep switching pronouns because of the desire that many feminist geographers have had to also find a way to combine their names with co-authors. So, it's they, you, we, your, so forgive that strange schizophrenia that goes to the feminist project.

Vicky L.: But, J.K. Gibson-Graham write for an economic politics focused on taking back the economy, and they've drawn attention to the power of capitalist centrism to obscure what is always already otherwise. Their work insists on the audacious idea that there are other economies worth studying. You consistently challenge the imaginary, that capitalist space is determined by its own logics, and that it can ever actually be impervious to both everyday politics and planetary politics. Drawing on second wave feminism and the idea of consciousness raising, you, they drew attention to the ways in which everyday politics imagine and enact diverse economic geographies. You have continually offered us a politics of the here and now, insisting on and uncovering multiple ways of being in the world that refuse singular narratives, singular theorizations of economy. Your, their work insists that the arrangements and activities that we all call economy are actually spaces of cohabitation and of contestation of multiple economic social and political forms.

Vicky L.: So, in short, you've taken up the vital question that we both heard posed by [Doreen Massey 01:01:14] at the AAGs in 2014: what is an economy for? And by extension, what is an economic geography for? And your answer centers on caring for the wellbeing of people and the planet.

Vicky L.: So, today, you surprised me, because you went to the belly of the beast, to industrial geography, and you were characteristically bold and invited us to think about a research agenda for economic geography that focuses on the possibilities for ethically responsible reworkings of manufacturing, a new kind of industrial restructuring that responds to a planetary crisis. You engaged with manufacturing to explore actually existing experimentations and ethical narrations of manufacturing action.

Vicky L.: So, in doing this you encourage us, you invite us to uncover ethical economic actions that make other worlds possible, something you've invited us to do for a long time. And I have to confess, this is an important challenge to me. Trained as a Marxist feminist, I'm much more familiar and I hardly dare say it, comfortable with critique, comfortable and familiar with work that picks apart the structural contradictions and oppressions within capitalist societies.

Vicky L.: You push all of that brilliant work that thinks about dominance, hegemony, and the ways that power works to constrain possibilities, how capitalist logics tie the hands of labor, how capitalist markets exclude and impoverish. You insist that we move beyond a reinscription of these forms of oppression.

Vicky L.: You might say that your lecture, I couldn't find a clever kind of antonym to it, but I was trying to think of one that was a reworking of disaster capitalism from Naomi Klein, where she refers to the making of profitability in the wake of wars and natural disasters, and I wanted another kind, but I couldn't come up with it. But what you invite us to do is to think about ethical openings that might arise in moments of crisis or restructuring, starting from human induced global warming. You don't write off the sector that we all assume produces the crisis,

the climate crisis. But rather, you go into a detailed exploration of how manufacturing might offer alternative ways of producing, and more importantly, sharing the fruits of production.

Vicky L.: You insistently pose questions about just sustainability, a term that captures our aspirations to reduce harm that comes from climate instability, and also to address wealth distribution disparities that are created by current economic arrangements. This linking of climate change with inequality is vital. You challenge us all to take up the ethical conversation about making that link more explicit. It's especially important given that the conventional answer to how we deal with poverty and impoverishment is actually economic expansion. More.

Vicky L.: So, this lecture is an invitation to economic geographers to expand the questions that we pose, to theorize already existing possibilities, to change narratives and actions around the question of what is an economy for, to really imagine what and who an economy could be for.

Vicky L.: The other thing I find really exciting, and perhaps another challenge to us all in how we do our work, is that your lecture poses planetary questions by poking around in the qualitative complexity of manufacturing, as you've said, that which is beneath the waterline in that iceberg, unspoken, unthinkable, in order to find diverse and imaginative responses that can open possibilities for acting and theorizing otherwise.

Vicky L.: I'd love to finish my commentary there, because I feel like I'm about to become that person that I'm trying not to be, but my job as a commentator is to invite some questions. Has to be a rebuttal, or not a rebuttal, a set of questions.

Vicky L.: So, I want to return to this question of what an economy is for. How are the possibilities for creating diverse and ethical economies situated within and conditioned by conjunctures? How are they situated in and conditioned by the complexity of geohistorical forces that shape the viability or the inclusivity of alternatives. And here I go back to my Marxist feminist roots, so the histories of racialized dispossession, white supremacist economies and societies, ideological commitments to neoliberalism, the growing power of elites, cultural consensus that favors a seemingly apolitical discourse of the fairness of economy, and so on. So, how do we understand the possibilities and the context of conjunctures?

Vicky L.: And perhaps related to that, and a question that's very much on my mind, I'm curious about the ways in which the geopolitics of manufacturing shapes what's possible in Australia, and what might be possible elsewhere. What governance contexts make these innovations possible or impossible?

Vicky L.: I can't help but think about the current looming trade war between the US and China. Currently in the US we've re-upped on the politics of protectionism, of manufacturing reshoring, and we've hooked up this protectionism to a white nationalist and authoritarian politics. Manufacturing steel and aluminum are

again, yet again as with manufacturing more broadly, questions of national security. I think the geopolitics of manufacturing in the US right now lays bare the foundational role of violence, bordering, and white supremacy in making the US economy.

Vicky L.: My second question is very much related. It has to do with what creates the conditions of possibility. So, in my work that you generously referenced, I invited geographers to research the relationships that produce the need for care, but I'm curious about the opposite question: what social and political arrangements produce equity and care? What sorts of relationships produce the possibilities for care, ethical manufacturing? What histories of anti-colonial practice already exist, but are not yet part of our reimagining?

Vicky L.: So how ... and I know you just [inaudible 01:07:53] the fact, this is the work we have to do, I'd love to hear you refine. How do we produce the political and social arrangements that move manufacturing from competition and drive for profit on a system-wide basis, towards greater care for planetary survival and equity? Can you say more about what your research suggests about how to achieve these sorts of arrangements?

Vicky L.: My third question has to do with who a diverse economy can be for. Your lecture has a planetary frame, and refers to wealth distribution in broad human terms, but surely certain freedoms, framed and constrained by neoliberal presence, are at the core of a politics of possibility. Surely viable alternative economic practices, ones that are more than just survival, are more available to some subjects than to others. So, how do we understand the ways in which other illegible, racialized, unthinkable subjects experience economic experimentation?

Vicky L.: This is perhaps a trite aside, but I'm going to just use it by way of illustration. It reminds me of the venture capitalist who came to talk to my students at Washington about failure. He's a multi-millionaire from the Bay area who talked about failure as a resource, as something that students should be unafraid of. He recounted the failure of his first three venture capitalist experiments and explained that he had to take a year off to recalibrate and learn about his failures, and then began experimentation anew. He described his year without a job, and I could see the faces of my first generation students from modest backgrounds, thinking about the impossibility of failure for their young lives, because a gap in their resumes was impossible, and because their families were depending on the income that would come from their newly-minted degrees.

Vicky L.: I in no way mean to compare his venture capitalism to the practices you discuss, but rather I'm thinking about his power position as a wealthy white man. To what extent are deliberate practices of experimentation, dropping out or leaving the grid, more possible for some subjects than for others?

- Vicky L.: One final question that has to do again with who can a diverse economy be for? This one has to do with the question of violence, and more than human lives. Scholars have long written about the intimate and necessary relations between capitalist, anti-blackness, and violence, through their treatment of [inaudible 01:10:24] colonialism, racial banishment, and the geography of dispossession. Violence is foundational to economic crisis and to hegemonic visions of the economy.
- Vicky L.: So, I think a care ethics can refuse to normalize violence. In doing that, care ethical analysis can ask which lives a diverse economy can be for. In imagining and practicing ethical economies, how do we challenge thoroughly normalized forms of violence that limit possibilities for being in common with both human and more than human lives. I want to ask how an ethic of care that extends beyond white supremacist versions of human lives come into being, as we imagine an industrial commons.
- Vicky L.: I'm going to take up the example, very briefly, of your discussion of a dairy. How do we reconcile industrial milk production and consumption with care for climate change and for non-human lives? There is an ethos of care for farmers in the co-op structure, but I wonder if this cannot extend to cows. How do we grapple with complex ethical entanglements that don't always point in the same directions?
- Vicky L.: I'm going to briefly call out Katie Gillespie's new book, *The Cow with Ear Tag #1389*, on the dairy industry, which focuses on farmed animals and raises questions about violence, commodification, and care. I'm going to quote Katie, as I can't say it better.
- Vicky L.: "How do practices that visit violence on a body and a life become normalized and routine, so much so that the violence does not seem like violence? In the dairy industry, violence is normalized by economic logics that render the cow a commodity."
- Vicky L.: I'm still quoting Katie. "Conceptualizing a life as a commodity limits ways of knowing that life. That life is understood as living capital. Legal framings of farmed animal species as property make these practices not only legal, but also normalized and socially accepted through that legality."
- Vicky L.: So, your project is vitally important, because it invites us to reconceptualize manufacture in terms of its social and planetary effects and possibilities. How do we take up, within that agenda, the twin practices of normalizing violence, and the commodification of some human and also more than human lives, in processes of manufacture?
- Vicky L.: I want to thank you once again for this lecture and your larger body of work, and I want to thank you for always being brave. And I want to end with a quote from Joan [Tronto 01:13:13]. She says, and I quote: "It's possible to imagine that

people can again be engaged at the level of ideas to think about what our human lives are actually about, and how we should best live them together." After more than a generation of neoliberal hegemony, it's time to theorize again the alternative, and you do that so beautifully. Thank you.

Katherine G.: A lot to process there. I'm not sure I have, of course, answers to anything, but let's start I think at the end.

Katherine G.: And I mean, you know, I agree with all those points, and I guess I would invite economic geographers that are interested in thinking about these things together with us to join forces, because I think these aren't things that we can deal with ourselves.

Katherine G.: But certainly, just to take on the violence that you mentioned in the dairy farm, for instance. Yeah, how do we start to think of the cow and the farmer and the land as a commons? Something that is being made and shared by all, together. Leaving aside what's going on with cow's bodies to make milk, etc., which is another whole set of issues. Interestingly, Jenny went to the annual meeting of NORCO and sat with some dairy farmers at that meeting, and they were going on about how wonderful the robotic milking was that they had installed in their farm, because it allowed the cows to go and be milked whenever they wanted to be.

Katherine G.: Interesting. No longer were they being told they had to only be milked now, and now, and sitting there with their full udders in pain, waiting for that gate to open, they're actually able to go in and out of this milking machine at will. Is that part of, you know, dealing with this ... starting to use robotics in a community, commons sharing ... I don't know. I mean, it's sort of an interesting thing to think about.

Katherine G.: So, I don't think we should be limiting ourselves to thinking of possibilities here, but that's something. I think many people would, I guess who are familiar with farmers, know the kind of connections they have with their animals, and the care that they make for them, that they have with those animals, even given that we could argue that there is a whole violence to our food production system and the way that milk features in it, etc.

Katherine G.: So, you know, there's so many different scales to start thinking about these ethical issues. And some of the things that we've normalized, I think, like having a national industry policy, for instance, it sort of seemed to be a good thing at certain points. But when you think about the nationalism that's been embedded in so much manufacturing industry policy, it's all been at the expense of other groups in other countries. So, how do we even start to even have an agenda for an international industry policy? Where do we even start to think about that outside of trade issues, for instance?

Katherine G.: Maybe there are people here that do that kind of work, and I'd love to hear from them because it's not something that I've done anything on, but I do realize that so much of the debate around what's happening with manufacturing in each country is a deeply nationalist, and thereby a kind of racist and often white supremacist argument. I think that's been, you know, part and parcel of the socialist movement that we've all, many of us, have been inspired by. There's a certain level of those kinds of politics embedded in what we're seeing as strategic and justness, and solidarity at certain points in time. Australia's labor movement was based on a white Australia policy. It was based on the exclusion of Asian labor, and the Australia Labor party is still informed by that ethos in terms of its position on immigration.

Katherine G.: So, how do I think of even engaging with the findings of our research at a political level? I think we're getting more ... people are more listening from the Green's party, but they're so marginalized they really don't have much of a say.

Katherine G.: Yeah. You had so many different points there, I don't know that I can go into any more. Well, the one other thing I guess, I mean, part of our project is to now start to have engagements with all the people, the companies we've interviewed, and bring them together and start talking together. And also start to talk to policy makers.

Katherine G.: But I guess one thing does come to mind, this question of who has the freedom to be part of a diverse economy or not is a very interesting one, because certainly ... and many people would critique the policies of the social economy or the third way as pushing a certain kind of economic participation on the most marginalized and asking them all to become risk-taking entrepreneurs, etc. You know, we don't have the freedom to take a year out to decide what failure was.

Katherine G.: And that's definitely that case, that there's so much pushing of a sort of vision of social enterprise onto the most marginalized, and I think that's why it was kind of interesting for us to find the ways in which some very interesting connections are being made, between social enterprise [inaudible 01:18:48] are working with those who are most marginalized, and in connection with other capitalist firms, and that that kind of relationship isn't something that's purely ... well, it's a mixture of instrumental and altruistic, and that there's a sort of way in which that hybridity may be something we can work with more in these sectors.

Katherine G.: We were trying to do some interviews with social enterprises in New Orleans while we're here, and we discovered that there are some that they're quite ... a lot of the social innovation kind of field is happening within high tech medical and scientific instrument kind of stuff, which is still very much the area of white employment. The kinds of things that are going on, even one of the groups we were wanting to talk about, Propeller, has had to make an explicit shift in policy towards having more inclusive entrepreneurship relationships, because the entrepreneurial kind of message is something that only certain people will take up without extra help.

Katherine G.: So, I think there's a lot to be done here, and there's a lot to be done beyond the critique, which is many of the critiques are valid. But where do we go with that? It is a form of a more democratic and often more socially inclusive form of economic activity, and it's up to us to help, I think, to theorize ways in which it can be made more viable for everybody, not just for the white risk-taking entrepreneur.

Katherine G.: So, these are many challenges that you've presented, and I think they are all things that are ... yeah, I would invite others to join in on that conversation, to help us think it through. But, let me have more questions.

Katherine G.: In terms of the ethics of care being used as a kind of way of skirting around labor relations, I'm sure that happens in all places, in many places. It reminds me of all the kind of ways in which, in the service sector particularly, you know, the Starbucks world, and everything, it's all about care, and somewhat ... but really quite exploitative as well.

Katherine G.: One of the things that comes to mind, though, when you spoke, was about a very interesting development in Australia, which I think is actually based on a more developed version in New York, which is a cooperative of caregivers who do aged care in homes. It's a cooperative network, where it's a worker owned cooperative. So, here there are a group of particularly women, and often from immigrant backgrounds and so on, who've decided to step outside of the more industrial care industry, [inaudible 01:21:34] worked in in institutions, and realized that they could start to organize their own worker-owned cooperative and have a much better kind of control over the kind of care they're offering, and the kind of economic rewards that they have.

Katherine G.: And in Sydney, this is a group that has just started and is starting to expand, and it seems to me that there's a lot of work, a lot of scope for different kinds of worker-owned cooperatives in this field. There's certainly also a new health cooperative that's working in that way.

Katherine G.: So, there I guess the enterprise model is one that starts to put these ethical questions on the agenda straight away, and even if the workers aren't necessarily unionized, or their relationship with the union movement is often quite difficult around co-ops in Australia anyway, their conditions of work and so on, and benefits and so on are very much under negotiation.

Katherine G.: So, I don't think there is any necessary reason to think that economic experimentation can't also happen in the service sector, and that there can't be interesting models for doing it in a more equitable way. What's interesting is how hard it is for people to find out about alternative forms of enterprise, and how difficult it is to legally establish these economic forms that in many countries, and especially in Australia, the kind of legalities of setting up different kinds of cooperatives are quite complex and are quite difficult for people to handle.

Katherine G.: There's a lot of interesting work going on now, I think, amongst legal scholars to say how the legal system and the ways in which laws have been established around enterprise and corporations is restricting the kinds of experimentation that people are really wanting to be involved in. That's happening here as well.

Katherine G.: So, there's a way in which I think one of the conjunctural issues is the way in which the legal system interacts with the opportunity to experiment, and to have some sort of legal protection. So, that is an area of a lot of interest amongst legal scholars now, to try and work with alternative economies. And we've got friends who are doing this now, to do that.

Katherine G.: And I think the more we can put out there, these opportunities for rearranging legal relationships and ownership relationships and ownership relationships and relationships to profits and so on in various ways, the more open the opportunity will be for people to get involved in more economic democracy within the workplace. You know, there's just been certain models offered for economic democracy, but there needs to be, I think, diversity in that as well.

Katherine G.: In terms of our research, most of the CEOs we've talked to are white men, so far, although Soft Landing has got a strong woman who's been very involved in women being involved in that enterprise. And also in one of the other cases that I didn't talk about, Work Ventures, as well. Yes, that's just what we've found. And I don't really have more to say about them at this point. The questions of femininity and masculinity aren't ones that we've taken up at this point with our data. It's not that we can't, we haven't yet, but it's still early days.

Katherine G.: Yeah?

Eric: Kathy, thanks so much. You're an inspiration as ever. One thing just struck me about your presentation today is that we're moving in some sense back into that formal sector that you're and [inaudible 01:25:16] examples there where a conventional, quote-unquote "capitalist firm" also could have an alternative ethical [inaudible 01:25:28].

Eric: And that raises two questions, one of which is, what are the positives through which those alternative commitments come out? Is this an entrepreneur decides to do things differently, and everybody in the firm sort of goes along with that, 'cause he is the leader, and [inaudible 01:25:45]. Or, are these arrived at collectively within these organizations?

Eric: And then the other [inaudible 01:25:52] start me thinking about is the whole informal sector of manufacturing, where ... and I understand it's not so much of an issue in a place like Australia, but in the Philippines where you've been working, it certainly is. And the informal sector of course can be a space for alternatives that don't have to be ... that can be positive and not restricted by various kinds of regulatory practices of the state, by definition, or also a space

where [inaudible 01:26:16] production can have all kinds of ethical political methods we would not want to prioritize.

Eric: So, those two issues came up to me. [inaudible 01:26:25] Thank you.

Katherine G.: Yeah, I think, just, Eric, in terms of the kind of assemblages of these companies, and how their commitments develop, that's something that I think that we need to do some more work on, and more reading about material around.

Katherine G.: I mean, obviously the Interface example is one where you could immediately, could easily see that there's been a leader that's got the spear in the chest, as he says. And then he died, and so what's interesting in Interface is the way in which the next generation of company, corporate CEOs and so on, have taken on that agenda together. It's in different ... we've interviewed people now in Europe and in Australia, and how they're doing that as a collective, to some extent. They've taken on ... I think he also enrolled people straight away as a collective, this eco dream team kind of thing.

Katherine G.: So, even though there was a leader who had the power and said we're going to do that, he then collectivized the thinking and drew on a very hybrid collective of thinkers. And I think they're still doing that in a very interesting way, which I think probably is a model that should be put out there for other companies to follow. And they are doing a bit of that kind of work.

Katherine G.: So, I think the danger with any kind of methodology that does qualitative interviews is that it kind of privileges and promotes the vision of the individual, and how do you bring it back into that kind of more horizontal set of connections and other possibilities, is something that the methodology ... there's a counter that we always have to bring into that kind of work.

Katherine G.: And how we'll do that, I don't know. I think that's a great challenge for us to think through. Because I'm sure we know that these things are hybrid collectives, they're not just the great lever kind of thing, and they're not just people either. They are kind of the opportunities that the materials offer, that the science offers at the time. You know, the materials.

Katherine G.: I mean, what's interesting is how many people are engineers who have this deep, very kind of unideological, but deep commitment to research around materials. And politically, I think they're probably quite progressive, but they don't get too involved in politics because they're pretty disgusted with political debate, and most of them are feeling like they're not heard in that political debate. And what's heard is the kind of whining about needing industry protection again and that kind of stuff. So, how they needed a voice, even within the collective debate is something that we're interested in trying to work on.

Katherine G.: Because they kind of are shrinking violets around that kind of stuff. They're just getting on and doing stuff, they don't quite know how to show themselves as a block, or as a model of something to just ... and that's partly what we're interested in doing. How do we sort of say there is different kind of way of being here, that isn't just, you know, blatant exploiter versus the [inaudible 01:29:32], or whatever the kind of images are.

Katherine G.: Yeah. In terms of informal sector work, I haven't been thinking about manufacturing in that context, although I just did a wonderful workshop that Nick organized. Is he still here? In London, just a few weeks ago, on informality and informal sector, and with people from South Africa and Rio, and from all over the world, really actually talking about the vitality of what's going on in that sector, whether it's for housing, or whether it's other kinds of activities.

Katherine G.: And the bare reality that in Southern Africa, you know, 80% of young men will never get a job in any formal economy. So, if you start from that perspective, where do you go with industry policy, when we're thinking about manufacturing? It's like, if you put care on your agenda first off, if you put the idea that there will never be a formal wage employment for you, first off, what does that mean for thinking about industry policy, manufacturing, economic geography, etc.,

Katherine G.: I mean, it's a huge shift. For a hundred years, people have been living in favelas in Rio, living a reasonable life, a more ecological life, than many other parts of the city. So, what does it mean to planners to say let's put that in the agenda as the model, rather than this other kind.

Katherine G.: So, you know, and within those contexts, there may be all sorts of nefarious ethical practices, or not. I mean, so much of our vision of ethics in the so-called non-us world is conveyed through these kind of very pejorative framings of patron-client relations, etc. You know, somehow it's an exploitative thing because someone has this power over you. And this is something that I think has been rethought interestingly in lots of ways. For instance in Isaac Lyon's work in Cambodia, he talks about that whole relationship as being a real site for where different kinds of economic enterprise can take place, in a context in which there's been so much destruction of social fabric.

Katherine G.: So, again, there's ways in which our capitalist-centric kind of vision tends to value and devalue all sorts of diversity that could be opportunities for other ways of doing things, that we need to interrogate. That's where I feel like the critical urge needs to be focused on, not on the critique of the experiment so much as the critique of what it is that stop the experiment being seen. I'd like to see more of that kind of critical thinking happening, rather than the kind of critical thinking that continues to place constraints.

Katherine G.: That is our knee-jerk training, but as Julie and I argued in the 2000 ... whatever it was, in Progress in Human Geography lecture years ago, it is about subject and

resubjectivation of the academic subject that is needed to do this kind of work. It's not easy, because what is easy is to ... yeah. To do the debunking that Latour is saying is, it's dominated and stymied social science now for decades. She says providedly.

Katherine G.: 3:00? That's time for a break.

Jim M.: Thank you all for being here, and thank you very-