

Critical Theory in Context

Conference

GREEN CAPITALISM A NEW REGIME OF ACCUMULATION?



Centre for
Social Critique
at Humboldt-
Universität zu
Berlin



MARK
BLOCH
Centre for
Environmental and
Political Studies

KEYNOTES:
**BRETT
CHRISTOPHERS
THEA
RIOFRANCOS**

29.-30.11.2024
**AUDITORIUM
GRIMM-ZENTRUM
HUMBOLDT-UNIVERSITÄT
GESCHWISTER-SCHOLL-STR. 1/3
BERLIN**

Organized by: Marius Bickhardt, Jacob Blumenfeld, Gauthier Delozière, Cannelle Gignoux, Hans Rackwitz, Daniela Russ

Supported by: Global and European Studies Institute at the University of Leipzig, Centre Marc Bloch Berlin, Centre for Social Critique HU Berlin



Green Capitalism - A New Regime of Accumulation?

November 29–30, 2024
HU Grimm Zentrum Auditorium, Geschwister-Scholl-Straße 1-3, Berlin

Friday, November 29, 2024

09:00 **Doors Open**

9:15-9:30 **Welcome and Introduction by the Organizers**
Cannelle Gignoux and Daniela Russ

09:30-11:00 **Critical Perspective on Eco-Marxism I: Limits, Rifts, Metabolism**
Bernardo Barzana (Northwestern/Potsdam): *The Limits of Natural Limits: On the Normative Foundations of the Metabolic Rift*

Killian Favier (Dublin): *Materialist Hubris in Eco-Marxism.*

Manuela Santamaria-Moncada (IfS Goethe-Universität/Universidad de Antioquia): *Metabolism, Metabolic Shifts, and Nature-Society Dialectic: An Adornian Perspective on Environmental Sociology*

Chair: Cannelle Gignoux (CMB Berlin/University Paris 8)

11:00-11:30 **Break**

11:30-13:00 **Critical Perspective on Eco-Marxism II: Nature, Labor, Capital**
Rose Troll (Goethe-Universität Frankfurt): *Reproductive Labor as Mediator*

Miriam Boyer (HU Berlin): *A Critical Assessment of the 'Real Subsumption of Nature' Argument*

Jan Overwijk (IfS Goethe-Universität): *Refusing Externalities: The Eccentricity of Labor-Power*

Burç Köstem (University of Southern California): *Techniques of Limitation: Communism, Transition and Eco-technical Struggles*

Chair: Gauthier Delozière (CMB Berlin/Sciences Po Paris)

13:00-14:00 **Lunch**

14:00-15:30 **Towards a Theory of Green Capitalism**
David Karas (CEU Democracy Institute): *A Regulationist Perspective on Varieties of Green Capitalisms*

Jan Gilles/Johannes Hollenhorst (LSE): *Canning Capitalism: How Net-Zero Technologies extend the Past into the Future*

Alyssa Battistoni (Barnard): *Political Dimensions of Green Capitalism*

Chair: Hans Rackwitz (IfS Frankfurt)

15:30-15:45 **Break**

15:45-17:15 **Conceptualizing the Green State**

Nina Schlosser (Berlin School of Economics and Law/University of Vienna): *The Green State as a Radical Revolutionist? Contradictions, Conflicts, and Continuities in the Chilean Lithium Sector*

Elias König (Twente): *Green Capitalism as Post-Carbon Technocracy: Three Theses*

Philip Köncke (Erfurt): *State Capitalism Goes Green: On The (Geo)Political Economy of China's Rise in Renewable Energy*

Chair: Marius Bickhardt (CMB Berlin/Sciences Po Paris)

17:15-17:45 **Break**

17:45-19:00 **Keynote:** *Green Extractivism: A New Regime of Appropriation?*
Thea Riofrancos (Providence)

Chair: Jacob Blumenfeld (Center for Social Critique, HU)

Saturday, November 30, 2024

09:00- **Doors Open**

9:15-9:30: **Welcome and Introduction by the Organizers**
Hans Rackwitz and Marius Bickhardt

09:30-11:00 **The Political Economy of Carbon**

Florian Skelton (Zurich): *From Rent to Profit: The Expanding Commodity Frontier of Carbon*

Marko Mann (Geneva): *Carbon Capture and Storage: The Cost and Coordination Motives Behind State Involvement.*

Kiri Santer (Bern): *Market-based Governance in the Carbon Era*

Johannes Fehrle (HU Berlin): *Carbon Offsetting as a Green Capitalist Business Venture*

Chair: Daniela Russ (Leipzig)

11:00-11:30 **Break**

11:30-13:00

Labor Struggles in the Green Transition

Luke Neal (Sheffield): *Labour, Materials and the Circular Economy: Ecological Contradictions of the North Sea Wind Industry*

Jasper Finkeldey (Halle): *Heavy Industries and Green Capitalism: A Love-Hate Relationship*

Lili Vanko (CEU): *Under a Green Guise: A New Wave of Restructuring and Accumulation in Lusatia*

Rocio Hiraldo Lopez-Alonso (Sevilla): *Spain's "transition" as a class process*

Chair: Stephan Humbert (Göttingen)

13:00-14:00 **Lunch**

14:00-15:30

(Post)Extractivist Regimes

Lela Rekhviashviki (Leibniz Institute for Regional Geography): *Green Capitalism in the Periphery: The Making of a Green Extractivist Regime*

Youssef Al Bouchi (UBC): *Green Extractivism and illusions of sustainable development, Lithium in Bolivia*

Alie Hermanutz (York University): *Externalizing Fossil Capitalist Liabilities in Alberta's Hydrocarbon Economies*

Chair: Thea Riofrancos (Providence)

Unter den Linden 6: 2249A

Industrial Decarbonization and the State

John Szabó (CERS/DIW Berlin): *Electricity and Hydrogen: Different Democratizing Potential in Green Capitalism?*

Stephan Stuckmann (MPIfG): *Negotiating Industrial Decarbonization – State-Industry Relations and the Role of Sectoral Production Structures*

Lasse Thiele (Konzeptwerk Neue Ökonomie): *"Green" capitalism's geopolitical turn: Hydrogen*

Chair: Rabea Berfelde (Center for Social Critique, HU)

Unter den Linden 6: 2249A

Green State Regulations and Ideologies

Guy Crawford (UCL/Warwick): *Capital Accumulation and Environmental Compensation: The State as Socio-Natural Relation*

Victoria Myznikova (LMU Munich): *Paint it Green: Russian 'Political Capitalists' in the Race for Lithium*

Julian Germann (Sussex), Lucia Barceña (TNI) [Mads Barbesgaard, Lund]: *Green Ambitions, Structural Realities: Capital, the State, and the EU's Critical Raw Materials Strategy*

Isabel Oakes (Oxford): *Idyllischer Gartenzweckkapitalismus: A Distinct Ordoliberal Environmental Framework?*

Chair: Stephan Stuckmann (MPIfG)

Abstracts

Friday, November 29, 2024

15:30-16:00 **Break**

16:00-17:30 **Finance for Green Capital**

Vicky Kluzik (Goethe University Frankfurt): *Nature after Economics: The Anatomy of Biosolutionism, or: How to Make Nature Investable*

Edoardo Esposito (Sapienza Università di Roma) [Tiziana Nupieri, Giulia Salaris]: *Sustainable Financial Development? The Role of Finance in Shaping the Green Accumulation Regime.*

Max Willems (MPIfG): *Transition Treaties: Project Finance and the New Green De-risking Infrastructures.*

Jens Christiansen (Lund): *State-as-market, market-as-governor: How the financialization of nature embeds public finance within market-based environmental governance.*

Chair: Hans Rackwitz (IfS Frankfurt)

17:30-17:45 **Break**

17:45-19:00 **Keynote:** *Market Failure: Climate Crisis, Green Energy and the Limits of Capitalism*

Brett Christophers (Uppsala)

Chair: Daniela Russ (Leipzig)

09:30-11:00 Critical Perspective on Eco-Marxism I: Limits, Rifts, Metabolism

Bernardo Barzana (Northwestern/Potsdam): *The Limits of Natural Limits: On the Normative Foundations of the Metabolic Rift*

In this paper, I inquire into the conceptual foundations of the metabolic rift school. My investigation focuses on the work of John Bellamy Foster and Kohei Saito. In the first part, I attempt to clarify the concept of metabolic rift, and to show that it is used very ambiguously throughout the work of these authors: they frequently equivocate between different concepts of social metabolism, natural metabolism, and metabolism as the interaction between society and nature through labor. By working through these ambiguities, I argue that the idea of a metabolic rift is incoherent. I then argue that a much more plausible critical concept that they employ is that of a limit. However, their use of the concept of a natural limit is equally imprecise, and their admission that nature is elastic – that the limits apparently given by nature can be and often are pushed back by technological developments – poses a serious problem to this critical strategy. I argue, finally, that Saito does not have the philosophical resources to make sense of the concept of an absolute natural limit, one that cannot be displaced by a “mere technological shift”. In the second part of this paper, I try to develop an alternative way to understand natural limits. Relevant limits, I argue, cannot only be sheerly given natural-scientific facts. They need to have a minimal level of normativity, at the very least, the kind of normativity given by the concept of life. I try to construct this concept by appealing to an Aristotelian and Hegelian naturalist tradition, as well as some contemporary readers of this tradition (e.g. Khurana and Ng). I argue that Marx’s concept of metabolism must be understood as in continuity with this tradition, and that, correspondingly, a more appropriate metaphor than that of a rift is that of a disturbance. But a disturbance is no mere natural phenomenon: it must be understood as normative, or, in Hegelian language, spiritual. Limits, I argue ultimately, must be understood as neither completely natural nor completely unnatural, but something in between.

Killian Favier (Dublin): *Materialist Hubris in Eco-Marxism.*

The philosophical roots of Marx’s concepts are often lost on the protagonists of Eco-Marxist debates. As a result, many contributions leave the stakes of Marx’s ecological translation underdetermined, if they don’t simply take his ecological potential for granted. As a recent study showed, however, throughout his works, Marx tends to emphasize human powers over the substrate of nature, with an ecological argument only arising timidly towards the end (Haug 2022.) On this account, nature is for the most part treated as an inert material shaped by human activity, and the development of human powers is considered the driving force of

history. I call this tendency *materialist hubris* and oppose it to its ecological counterpart. My aim in this paper is to shed light on Eco-Marxist debates by drawing from this recovered philosophical legacy. I argue that Marx's concept of nature not only stands for the pre-existing setting on which society depends through the metabolic interchange; it is also the material undergoing change in history. This ambivalence allows me to propose a tentative hermeneutics for Eco-Marxist theories, depending on which parts of Marx's materialism they draw from and what they make of the concept of nature. Mainly, the focus must be on whether nature remains a conditioning domain with its own heteronomous forces, possibly reacting disastrously to human activity, or whether it is sublated under the human capacity of transformation (e.g. as socially determined). I associate the ecological kind of materialism with the "metabolic rift" critique, although I reject its association with the critique of alienation (which for its part concerns human powers over the passive substrate of nature.) On the other hand, I associate materialist hubris with Jason Moore, the "production of nature" paradigm, and Leftist eco-modernism. These accounts tend to subsume ecological problems under their social causes, thereby suggesting that nature is only what society (e.g. capitalism) makes of it.

Manuela Santamaría-Moncada (IfS Goethe-Universität/Universidad de Antioquia): *Metabolism, Metabolic Shifts, and Nature-Society Dialectic: An Adornian Perspective on Environmental Sociology*

John Bellamy Foster and Jason W. Moore are among the most prominent Marxist environmental sociologists today. Foster, alongside Paul Burkett and Brett Clark, has contributed significantly to a "green" reading of Marx, offering valuable insights into Marx's theory concerning contemporary environmental issues. Foster engages in a strategic analysis of specific ecological conflicts and aims to demythologize concepts like nature and metabolism in a broader sense. However, Foster's emphasis on a "scientific" interpretation of metabolism—focusing on literal imbalances in soil within agricultural production—appears to create a rigid dualism between humanity and nature rather than addressing the broader natural scientific changes in the universal metabolism of nature. Jason W. Moore critiques Foster's tendency towards this dualism and reconstructs some of the underlying philosophical foundations. Nevertheless, Moore's attempt to overcome the nature-human dualism through a poststructuralist lens derives into a false harmonization that can tank analytical depth and lead to confusion. In my presentation, I will argue that Theodor Adorno's concept of natural history offers a dialectical approach that avoids both Foster's rigid dualism and Moore's problematic reconciliation. For Adorno, metabolism is a critical-dialectical category that provides a nuanced understanding of social phenomena's dynamic and static aspects. It avoids reducing our relationship with nature solely to its mediation through work while acknowledging this fundamental relationship. By employing Adorno's framework, we can develop a more comprehensive concept of nature's metabolism that transcends Foster's positivist scientific approach and sidesteps the abstractness of Moore's *open-flow metabolism*. This approach enables a deeper analysis of ecological contradictions and their structural transformations.

11:30-13:00 Critical Perspective on Eco-Marxism II: Nature, Labor, Capital

Rose Troll (Goethe-Universität Frankfurt): *Reproductive Labor as Mediator*

Labor, as mediating the metabolism between humans and nature, mediates the contradiction between nature and capital (Stache 2017). While the processing of non-human nature for the production of commodities thus takes center stage, ecofeminists point out that the productive and regenerative capacities of nature as well as reproductive activities, which are predominantly performed unpaid by women, are usually left out of the ecological and Eco-Marxist discussion. What would it mean to take reproduction into account? In the renewal of the ecofeminist tradition a structural analogy between the appropriation, devaluation and invisibilization of yet necessary female reproductive activity and products of nature is analyzed (Oksala 2018). However, reproductive activity is contrasted with the destructive capitalist mode of production as a life-supportive, external aspect (Salleh 2017), which does not do justice to the fact that it is a constitutive component of a comprehensive valorization connection (Saave 2022). Furthermore, the aspects of (re)productivity (Biesecker/Hofmeister 2015) are equally part of a "utilization" for valorization (Schaupp 2024). While being a necessary objection, this in turn conceals the fact that the separation between reproduction and production runs along a gendered line. As I will therefore argue, taking reproduction into account refers to the gendered division of labor, which in its classic form constitutes the "patriarchy of the wage" (Federici 2021). As such it lies as contradiction in the midst of the contradiction of nature and capital.

References

- Biesecker, A./Hofmeister, S. (2015): (Re)Produktivität als ein sozial-ökologisches ‚Brückenkonzept‘. In: Katz, C. et. al.: Nachhaltigkeit anders denken. Wiesbaden.
 Federici, S. (2021): Das Lohnpatriarchat. Texte zu Marxismus & Gender. Wien/Berlin.
 Oksala, J. (2018): Feminism, Capitalism, and Ecology. In: Hypatia 33 (2), 216–234.
 Saave, A. (2022): Einverleiben und Externalisieren. Zur Innen-Außen-Beziehung der kapitalistischen Produktionsweise. Bielefeld.
 Salleh, A. (2017): Ecofeminism as Politics: Nature, Marx and the Postmodern. London.
 Stache, C. (2017): Kapitalismus und Naturzerstörung: zur kritischen Theorie des gesellschaftlichen Naturverhältnisses. Berlin/Toronto.
 Schaupp, S. (2024): Stoffwechselfolitik. Arbeit, Natur und die Zukunft des Planeten. Berlin.

Miriam Boyer (HU Berlin): *A Critical Assessment of the 'Real Subsumption of Nature' Argument*

An increasingly popular analysis of the relationship between society, nature and technology argues that the application of technologies in natural systems amounts to a 'real subsumption of nature.' The argument is analogous to Marx's distinction between a real/formal subsumption of the labour process under capital. A foundational contribution argued that biotechnologies in the forestry industry could harness nature to "work harder, faster and better" (Boyd 2001, 564).

According to this argument, technological interventions constitute a “real,” vis-à-vis a “formal” subsumption of nature in the case of non-biologically-based industries (ibid.). In the wake of various ‘green’ capitalist projects, scholarly papers making this argument have multiplied. Moreover, Eco-marxist authors have more recently also used the argument to advance the idea of a ‘working’ nature and to question the distinction between nature and society. The contribution takes a critical stance vis-à-vis the ‘subsumption of nature’ thesis. Taking the example of high-tech plant breeding, it suggests that the notion of a formal/real subsumption of nature does not help to better understand the relationship between society, nature and technology. Just the opposite, it avoids specifying just how technologies associated with green capitalist projects harness and interact with nature. Moreover, the argument is problematic as a theoretical proposition that erases emergent properties that distinguish social relations from nature. Rather than a useful tool for understanding technological transformations in green capitalist projects, the ‘Real Subsumption of Nature’ argument contributes to the ideological basis of green capitalist projects.

Jan Overwijk (IfS Goethe-Universität): *Refusing Externalities: The Eccentricity of Labor-Power*

The critical study of capitalism in the Anthropocene is burdened by a terrible dilemma. On the one hand, as ecological economics has pointed out, the economic flow of money must be nested within an ecological flow of matter and energy. Yet, on the other hand, the circulation of value cannot be reduced to a physiological ‘substance’. This point is rightly stressed in the ‘value-form theory’ interpretation of Marx that has gained immense popularity among Marxist scholars today. Economic value, the dilemma thus states, *cannot yet must* be rooted in ecological wealth. It raises the question: How can value be both situated within thermodynamic flows of matter and energy *and* belong to a social system of money and markets that is *sui generis*? This presentation pursues this question in the context of one of Marx’s great conceptual contributions: Labor-power. Under the influence of German physicist Hermann von Helmholtz, Marx forwards that labor-power is both a thermodynamic force and an economic commodity. On the basis of this ambiguity, labor-power uniquely promises capital the gift of growth. Capital can exploit labor-power by valorizing the distinction between its economic exchange-value, the wage paid, and its ecological use-value, the labor performed. The worker’s ecological wealth exceeds its economic price (Marx 1976, 300-1). Surplus labor might thus be thought of as capitalism’s *first externality*. Yet here the dilemma truly surfaces. For how does capital *internalize* labor-power’s positive externality as economic value? How can it turn surplus energy into surplus value? In this presentation, I explore the possibility that capitalism’s conversion from ecological energy to economic value, from externality to internality, proceeds *nonlinearly*. This means that value bears an incommensurable relation to energy inputs, including labor inputs. Value, I suggest, emerges from neither some special ecological nor economic quality of labor-power, but from the *political struggle* over the very difference between its ecological wealth and economic value. Labor-power uniquely ‘produces’ value because it sits at the crux of economy and ecology

as an *eccentric commodity*, that is to say, as the only commodity that has the ability to refuse the transition from externality to internality. Labor-power, in its struggle with capital, decides what ecological energy will be converted into economic work. This locates a core ecological impulse in Marx’s philosophical thought and offers a new perspective on the promises of externalities-oriented green capitalism

Burç Köstem (University of Southern California): *Techniques of Limitation: Communism, Transition and Eco-technical Struggles*

In much of the Marxist work that imagines what a future society might look like, communism is conceived of alongside an implicit theory of transition, which demands a scaling down of large-scale technical ensembles – the ability to break apart industrial agriculture, create local practices of farming, the ability to turn off mechanical production when the sun is out and to take long afternoon naps. So much of the contemporary ecological left – influenced not only by accounts of degrowth (Schmelzer, Vansintjan, and Vetter 2022; Saito 2023), but also those of communization (Bernes 2018; Neel and Chavez 2023), and social ecology (Finley 2019) – is focused on this scaling down. No more megaprojects, technical systems that rely on a smaller throughput of materials and energy, more localized infrastructure and transport systems. Yet a communist horizon would equally require the “scaling up” of technical culture, the generalization of what French philosopher of technology Gilbert Simondon called “technical activity” – the construction of technical systems that are more amenable to forms of collective care and maintenance (Berlant 2016). What if communism requires not the construction of new megaprojects, nor some accelerationist fantasy, but to build a generalized condition of eco-technicity, the ability collectively maintain and care for our technical ensembles? In this paper, I bring Simondon’s reflections on technicity (Simondon 2016; 2020) in conversation with recent elaborations of Marx’s theory of the metabolic rift (Mau 2023; Saito 2023), to sketch out what I describe as “eco-technicity” and “eco-technical domination”. Through this concept, I investigate how infrastructure and particularly the question of maintenance and reproduction has become a key site of eco-technical struggle and contestation for the left amidst, especially as it confronts a capitalist green transition already underway. I propose that such an analysis could bring a more nuanced reading of how Marxists ought to address the theme of environmental limitation, as a political and technical practice, through bringing attention to questions of scale, path dependency, and class composition.

14:00-15:30 **Towards a Theory of Green Capitalism**

David Karas (CEU Democracy Institute): *A Regulationist Perspective on Varieties of Green Capitalisms*

The ecological crisis, the ideological exhaustion of neoliberalism, the return of state capitalism (which enjoys a heightened visibility via green industrial policies), and inter-imperialist conflicts have convinced many that global capitalism and the

interstate system are in a process of radical reconfiguration, heralding new class-, state-market, state-society, and inter-state relations. For more sceptical observers, these reconfigurations mask in fact the deepening and hardening of existing hierarchies produced by neoliberal capitalism in all of these dimensions. I argue that in these continuity- or change debates, Regulation Theory can help disentangle how change and stasis coexist within different social fields and institutional sub-systems of capitalism at different scales: Comparing US and EU green industrial policies in electric batteries, I argue that whereas the Biden Administration attempted to use green industrial policy to recalibrate the US regime of accumulation and its underlying mode of regulation, green industrial policies in Europe were used to sustain (rather than displace) the pre-existing regime of export-led accumulation. Both processes are fraught with deep contradictions in their internal politics and their external embeddedness: however, a comparative regulationist perspective helps to distinguish between different varieties of green capitalisms.

Jan Gilles/Johannes Hollenhorst (LSE): *Canning Capitalism: How Net-Zero Technologies extend the Past into the Future*

The current political program of green capitalism is based on the “meta-concept of Net-Zero” (Valenzuela and Lezaun, 2024). Aiming to achieve a balance in the equation between carbon emissions and carbon sinks, Net-Zero is situated in-between the fossil fueled past and a speculative green future. Previously, the use of hydrocarbons has enabled capitalists to generate high profits as their CO₂ emissions were free of charge. To achieve net-zero in a capitalist system, carbon emissions as well as carbon removals are integrated into the production and accumulation process. The key question is how this integration of carbon management is made profitable, and which new contradictions emerge. We address these questions through the analysis of data from fieldwork in two technological sectors which have seen rapid commercialization in recent years, each representing one side of the Net-Zero equation: decarbonization and carbon sinking. On the one hand, blue hydrogen is developed and lobbied for by fossil fuel companies and petrol states as a way to extend the lifetime of their hydrocarbon assets. Produced with natural gas, blue hydrogen promises to resolve the climate contradiction through the use of carbon capture and storage (CCS). On the other hand, carbon dioxide removal (CDR) technologies allow for the continuation of fossil fuel dependent practices like aviation and cement production. Offsetting ill-defined “hard-to-abate” emissions through CDR enables the subtraction of CO₂ emissions from the Net-Zero equation. Both technologies sustain the use of hydrocarbons for the extension of profits of the carbon past into the carbon neutral future by turning CO₂ into an industrial product itself. We call this approach “canning capitalism”. Revisiting recent discussions of Harvey’s concept of the spatiotemporal fix (e.g. Ekers and Prudham, 2018), we substantiate our argument by showing how the profitability of Net-Zero technologies continues to be dependent on the surplus value generated by the use of hydrocarbons. As industrial production has largely been optimized for fossil fuel use, the integration of “canning” carbon is more attractive to owners and operators of respective

infrastructures than a transition to renewable and circular alternatives. This integration reveals both blue hydrogen and CDR as conservative forces aiming to sustain the existing regimes of accumulation through carbon management. At the same time, canning capitalism creates a new material contradiction with the inherent risk of reenforcing economic and environmental crisis.

Alyssa Battistoni (Barnard): *Political Dimensions of Green Capitalism*

This paper considers the political dimensions of an emergent “green capitalism.” Building on James O’Connor’s suggestive but underdeveloped comments about the state’s role as mediator between capital and nature, read alongside Marxist state theory and recent work on state and political capitalism, it argues that a green capitalism will be a state-interventionist one. It considers three dimensions of state mediation in particular: state intervention in production; state provision of green infrastructure (including fundamental biospheric functions); and state response to accelerating climate shocks. First, while green technology has long been heralded as the industry of the future, its development thus far has been heavily reliant on state action, whether in the form of China’s robustly state-led development of solar technologies, or the use of public funds to stimulate private investment, as in the U.S. Inflation Reduction Act. While commenters have noted the emergence of new forms of “state capitalism,” the significance of green industry in this reconfiguration has been overlooked in the mainstream literature. Second, many aspects of climate mitigation and adaptation constitute forms of infrastructure development that are unsuited to private ownership. Many of the ecosystemic services required for biospheric stability are public goods that can only be reliably provided by states, while many technologies linked to biospheric function, from renewable energy to carbon capture, are likely to be unprofitable. Third, states will be increasingly be called upon to respond to the increasingly obvious impacts of climate change, in order to both secure the conditions for accumulation and maintain some degree of popular legitimacy in the midst of climate chaos. Climate change itself will therefore tend to drive an expanded role for the state. Taking a critical perspective on the state, the paper argues that these projects can be understood as efforts to respond to capitalism’s self-destructive tendencies. They nevertheless represent a major reconfiguration of the relationship between states and capital—one which will cast the political nature of investment in starker light and open up new terrain for left contestation.

15:45-17:15 Conceptualizing the Green State

Nina Schlosser (Berlin School of Economics and Law/University of Vienna): *The Green State as a Radical Revolutionist? Contradictions, Conflicts, and Continuities in the Chilean Lithium Sector*

The destructive consequences of the hegemonic production and consumption norms of capitalist societies are expanding in time and space. Based on transfer mechanisms embedded in imperialist structures, the socio-ecological costs are

externalized to an "outside" (Luxemburg), where they are unequally distributed over societies and Nature. The dominant decarbonization strategies by the European Union, such as the electrification of automobility, reproduce this unequal exchange under a green sign, amongst others with Chile, its main lithium supplier. The peripheral progressive government faces a dilemma though: The global crisis of Nature, to which the Chilean majority society has contributed little, hits Chile hard. However, lithium is not only an indispensable component of "climate-friendly" technologies and a means to adapt to climate change. Lithium exports also guarantee state revenues, direct investments as well as implementations of societal infrastructures by the (trans-)national capital which acts as a Welfare State in the mining region of which the actual State itself is incapable. Yet, climate change and lithium extractivism threaten fragile ecosystems and solitary modes of living, and as a result, provoke conflicts – between the antagonistic groups and at different scales – with the Subsidiary Andean State as a key figure. Against this backdrop, its dominant environmental regulation – structurally forced and fragmentedly consensual – aims in general at the greening of the extractivist accumulation regime and in particular at the ecological modernization of Chile's lithium sector. Chile – as a cost-internalizing and Nature-exporting country – and the Green State seem to function as a guarantor for the Greening of Capitalism in the Global North and beyond, whose contradictory complex I try to comprehend. Insights from ecological Marxism (O'Connor), which I intertwine with key findings from Critical State Theory (Poulantzas) and Hegemony Theory (Gramsci), help to examine the role of the State and its apparatuses in the reproduction of an eco-extractivist accumulation regime in the Global South with link to the North, on the one hand. The empirical case study using the example of Chile, in turn, visualizes (counter-)hegemonic alliances, mechanisms, processes, and structures that might constitute a fruitful contribution to the eco-Marxists debate, approaches for historical-materialistic analyses, and perhaps ideas for eco-socialist strategies from below.

Elias König (Twente): *Green Capitalism as Post-Carbon Technocracy: Three Theses*

In climate circles, the seemingly antagonistic forces of *green* and *gray* capital have become a popular reference (Thiele 2019). While gray capital refers to capital directly invested in the fossil fuel industry and related industries (such as automobile, cement, petrochemical and steel), 'green' capital is associated with renewable energy, electric cars and other supposedly 'greener' sectors. Under the current fossil capitalist order, gray capital still constitutes the most powerful class fraction and its very existence would be threatened by any kind of rapid decarbonization (Malm 2016, Zetkin Collective 2021). The following theses reflect on this dynamic in different parts of the world and in the context of Timothy Mitchell's carbon democracy hypothesis (2011). *The first thesis* concerns the far-reaching capture of the core carbon democracies by gray capital. 'Green' capital in these contexts often turns out to be but another shade of gray. Fossil capital and its allies have come to wield significant control over speed, scope and structure of the energy transition. If democratic politics were to ever threaten this control or demands for a speedier transition, the forces of *fossil fascism* stand by. In

contemporary carbon democracies, then, carbon beats democracy (for now). *The second thesis* contends that different dynamics are at work in the context of what has been termed "Global China", where the contradictions inherent to carbon democracy are to some extent mitigated. Notably, it is Chinese capital, with the active support of a post-Leninist developmental state, that has come to largely control the market for electric vehicles, lithium-ion batteries, solar panels, as well as many of the supply chains crucial to capitalist decarbonization. *Thirdly*, I pose that real-existing green capitalism as it is emerging in and around China could be understood in terms of what Victor Seow has called *carbon technocracy* (2022). Building on my own field observations in China and Taiwan I sketch how the technocratic arrangements of labor and environmental control identified by Seow may actually outlive the energy transition, bringing about a new regime of *post-carbon technocracy*. I conclude with some thoughts on the relevance of this analysis for workers and the environment, also in the European context.

Philip Köncke (Erfurt): *State Capitalism Goes Green: On The (Geo)Political Economy of China's Rise in Renewable Energy*

The global climate crisis is driving structural transformations in capitalist societies. From a political-economic perspective, the shift towards green capitalism involves a reconfiguration of state-capital relations. This is particularly evident in Western core countries (USA, European countries) and China, though the specific forms of this reconfiguration vary significantly. In the West, new modalities of neoliberal-imperial state interventionism are emerging, aimed at nurturing "green" high-tech sectors. Meanwhile, Chinese state capitalism is undergoing profound marketization and economization of state governance to foster "green growth". But while Western capitalisms receive significant attention in academic debates about green capitalism, political-economic transformations in China towards a "green" accumulation model are rarely discussed, despite being an intriguing research object for several reasons: On the one hand, emerging forms of Western state interventionism both are a response to and reflect a convergence towards China's state-driven model of capitalism. On the other hand, many Chinese companies are global leaders in "green markets", particularly in wind turbine, solar module, and new energy vehicle production. For instance, five of the ten largest global solar (e.g., JinkoSolar) and wind turbine producers (e.g., Goldwind) are based in China, accounting for about two-thirds of global production. By fostering these strategic "green" industries within its own borders, China strengthens its position in the global division of labor and amplifies its (geo-)economic power resources amid the emerging "new triad competition" with the United States and the European Union. This study explores the contours of an emerging "green" accumulation model in China by analyzing the (geo-)political economy of China's rise in the renewable energy sector. Theoretical references include political ecology, materialist state theory, and the regulation school. We begin by analyzing how state-capital relations in Chinese capitalism are reconfigured in the context of the "green transformation". Specifically, we examine how state interventionism in China is becoming more profit-oriented and market-driven, aiming to support "green" high-tech sectors through measures like mixed-

ownership reforms, government guidance funds, and the emergence of state-owned investment companies. Empirically, we focus on the wind and solar sector and compile a dataset on Chinese companies in these sectors, including variables such as ownership structures, the reception of state subsidies, and informal forms of influence on corporate governance by the Chinese Communist Party, to illustrate how the Chinese state class has promoted the internal development and internationalization of these “green” high-tech companies. Additionally, we use investment data to trace the globalization patterns of these companies. Finally, we analyze the geopolitical dimension of these processes, highlighting the resulting political conflicts between the USA, EU, and China amidst escalating economic competition in “green” markets.

17:45-19:00 Keynote

Thea Riofrancos (Providence): *Green Extractivism: A New Regime of Appropriation?*

Saturday, November 30, 2024

09:30-11:00 The Political Economy of Carbon

Florian Skelton (Zurich): *From Rent to Profit: The Expanding Commodity Frontier of Carbon*

Carbon markets are the bread and butter of every state’s climate policy. On carbon markets, billions of carbon offsets have been traded so far, leading one of their main architects, Richard Sandor, to predict in 2010 that “carbon [...] will be unambiguously the largest commodity in the world” (quoted in Lohmann 2011, 93). But what type of commodity is carbon, if at all? Is it produced by workers, nature or the market? This question is contested within Marxist scholarship. Some view carbon as a commodity because it results from the dispossession of (global South) communities and the commodification of ecosystems (e.g., Bumpus and Liverman 2008). Others assert that carbon is a commodity because it crystallizes the financial risk of market transactions (Christophers 2018). Others still contend that carbon is no commodity at all, as it does not result from the exploitation of waged labor (Felli 2014; Thiele 2020, 99–106). I contribute to this debate by mapping the distinction between rent and profit onto the three different types of carbon traded on carbon markets: avoidance, reduction and removal offsets. While the former two are based on counterfactual carbon emissions being avoided or reduced, the latter are based on factual carbon being removed from the atmosphere. I argue that carbon avoidance and reduction offsets are not commodities *stricto sensu*, but forms of “climate rent,” as they result from the control of a condition of production in the sphere of circulation. Carbon removal offsets, on the other hand, are indeed commodities, as they result from the exploitation of waged labor for profit in the sphere of production. In other words, carbon avoidance and reduction offsets are a means to accrue rent, while carbon removal offsets are a mechanism to extract profit. Since the importance of the latter over the former has been increasing rapidly in recent years, the macroeconomic function of carbon markets is shifting accordingly. This development entails an expansion beyond the certification of counterfactual acts of avoidance and reduction towards a carbon removal industry in which workers sequester and store tangible carbon. Hence, the commodity frontier of carbon is expanding from rent-seeking to profit-extraction. Taken together, this paper not only introduces more nuance into the debate over whether “commodification” is the correct lens to analyze the relation between carbon markets and carbon, it also contributes to the understanding of carbon markets within green capitalism.

References

- Bumpus, Adam G., and Diana M. Liverman. 2008. ‘Accumulation by Decarbonization and the Governance of Carbon Offsets’. *Economic Geography* 84(2): 127–55. doi:10.1111/j.1944-8287.2008.tb00401.x.
- Christophers, Brett. 2018. ‘Risking Value Theory in the Political Economy of Finance and Nature’. *Progress in Human Geography* 42(3): 330–49. doi:10.1177/0309132516679268.
- Felli, Romain. 2014. ‘On Climate Rent’. *Historical Materialism* 22(3–4): 251–80. doi:10.1163/1569206X-12341368.

Lohmann, Larry. 2011. 'The Endless Algebra of Climate Markets'. *Capitalism Nature Socialism* 22(4): 93–116. doi:10.1080/10455752.2011.617507.
Thiele, Lasse. 2020. 'The Prospects of "Green" Capitalism: Systemic Accumulation and Cost Re-Externalizations in the Green Economy'. Ph.D. Freie Universität Berlin. <https://refubium.fu-berlin.de/handle/fub188/27924>

Marko Mann (Geneva): *Carbon Capture and Storage: The Cost and Coordination Motives Behind State Involvement.*

This talk examines the growth of Carbon Capture, Utilization, and Storage (CCUS) technology in policies addressing global warming through a critical political economy lens, particularly with regards to the pivotal role of the state in its deployment. Applying the Entrepreneurial State (Mazzucato, 2015) and Derisking State (Gabor, 2023) frameworks, we illustrate how the state plays a central function to the deployment of CCUS, not only through direct investment and derisking but also, perhaps more significantly, as an agent of coordination in this emerging market. The evidence presented suggests that CCUS is an effort to ecologically modernize production that can be a source of profit generation, but not without a strong helping hand by the state. We examine its role in coordinating the deployment of CO₂ value chains - covering capture, transport, utilization, and storage - to illustrate how corporate interests and state power collaborate, potentially facilitating the emergence of a *green* accumulation regime. Our findings reveal that Oil and Gas (O&G) firms are leveraging *Storage as a Service* within new business models, suggesting that CCUS is showing potential for a novel accumulation avenue for the O&G sector. The study also explores why industrial polluters favour CCUS over other emission reduction methods, finding that CCUS minimizes sunk costs and more importantly, stranded assets by allowing for the retrofitting of capture modules onto existing production infrastructure. This appears to be key in managing the risk related to the phasing out of polluting activity and capital devaluation in the transition. Empirically examining CCUS deployment in Europe, particularly France, via the EU SETIS database reveals a growth driven by public investment and coordination. The research concludes that CCUS's growing importance in the climate crisis involves complex interactions between numerous actors with diverging interests, at the centre of which state institutions and corporate interests intersect. As CCUS is developing as an example of an industry designed to restore the environment as anticipated by J. O'Connor in 1991, this study illustrates a concrete instance of green capitalism as a technology (and finance) - led accumulation regime.

Kiri Santer (Bern): *Market-based Governance in the Carbon Era*

This paper provides insights into how industrialists operate under green capitalism with newly induced conditions of uncertainty for future capital accumulation. Specifically, it examines how the European aluminium and steel industry are anticipating the phase out of free allocations under the EU's Emission Trading System (ETS) combined with a border carbon adjustment (known as the EU's Carbon Border Adjustment Mechanism or CBAM). Following Felli (2014) and

Thiele (2019), the reform of the ETS can be seen as a constraint to accumulation in the sense that controlled emission rights impose scarcity of access to conditions of production. As materials essential for building the infrastructure of electrification but which have extremely energy-intensive production processes, steel and aluminium provide crucial insights into the material challenges of decarbonization. These are industries marked by initial mass investments that make up sunken costs that in turn, induce inertia and path dependency at different levels. Although steel and aluminium have different production processes, interviews and on the ground research show that the uncertainty induced by compliance-based carbon pricing regulation provokes a turn by both industries towards the state. In the case of electro-intensive primary aluminium production, industrialists call for more grid investment and faster permitting for power purchase agreements to fast-track renewable projects. For steel, the uncertainty induced by the colossal cost of structural transformation, pushes European steel makers to call for a more 'decisionist' state. The constitution of carbon as property through law by the ETS' market-based governance is an attempt to disentangle carbon from its social and material relations. An empirical examination of how industrialists plan for the future in terms of investment and how they engage with uncertainty, reveals the interdependency of private capital to wider (state) infrastructure. This paper argues that the uncertainty produced by the state-market construct of carbon pricing, produces new discussions among industrialists about the role of state intervention in the post-free pollution era. Indeed, price signals induced by the cost internalization mechanism do not just magically channel capital into the most efficient solutions for decarbonization

References

Felli, Romain. 2014. "On Climate Rent." *Historical Materialism* 22 (3–4): 251–80. <https://doi.org/10.1163/1569206X-12341368>.
Thiele, Lasse. 2020. "The Prospects of 'Green' Capitalism: Systemic Accumulation and Cost Re-Externalizations in the Green Economy." Berlin: Freie Universität Berlin.

Johannes Fehrle (HU Berlin): *Carbon Offsetting as a Green Capitalist Business Venture*

In recent decades the multiple ecological crises of capitalism have become so apparent that even bourgeois states and capitalist shareholders have accepted that something needs to be done to stop catastrophes such as climate change. At the same time calls for radical socio-ecological transformations, such as Kohei Saito's "degrowth communism" (2022), remain relatively marginal. Instead, the dominant factions of society have resorted, once again, to a reliance on technofixes in the hopes that technology can "infinitely expand commodity production and capital accumulation", willfully overlooking both that many of these future technologies are at best marginally developed, as well as the "immense, unforeseen repercussions" such technologies and the continuation of the current mode of production bring with them (Foster and Clark 2020: 284). My talk will examine one such technofix: carbon offsetting, particularly offsetting from agriculture ('carbon farming'). Employing Elmar Altvater and Birgit Mahnkopf's model of 'valorization' [*Inwertsetzung*] (Altvater 1987; Altvater & Mahnkopf 2007), I will

shed light on the political economy of this new process of extracting value from a previously unvalorized aspect of nature. Drawing on literature about the scientific promises as well as the many uncertainties surrounding the measurement, verification, and long-term benefits of carbon farming, all of which are still controversially discussed in the literature, I understand carbon farming as a new green capitalist business venture. Far from fretting over the supposed accumulation crisis of a “second contradiction” of capitalism (O’Connor 1988), capital understands ecological crises as a source for new business ventures and new forms of extraction. I will term these “non-extractive’ extractivism”, since they extract value precisely through the *non*-extraction of the commodity they supposedly sell: soil organic carbon. What is more, carbon farming does not replace the extraction of commodities from farmland, but adds the ‘production’ of symbolic claims for carbon dioxide removal to the economic portfolio of agro-food businesses. As such it stands as an example of how capitalism tries to adapt to and reap profits from the ecological problems it has been instrumental in creating.

11:30-13:00 Labor Struggles in the Green Transition

Luke Neal (Sheffield): *Labour, Materials and the Circular Economy: Ecological Contradictions of the North Sea Wind Industry*

This paper combines theoretical problems posed by the Marxian-ecological critique of capitalism with empirical research on labour process change and sustainability in the North Sea wind industry. Drawing upon interviews with offshore wind technicians, engineers and managers in manufacturing and operations, the paper contributes an interpretation of the contradictory ecological impacts of offshore wind development, as understood and shaped by circular economy strategies. This research historicises turbine manufacturing and deployment, operations and maintenance, and analyses potential wind farm repowering, component repair and reuse, and end-of-life and decommissioning, as moments of a novel capital accumulation process shaped by the nature of the marine environment and the new international division of labour. On the one hand, the farm/project-based industrialisation led by manufacturing monopolies (OEMs) enforces a pattern of expansion through the upgrading of factories to produce increasing turbine sizes. This discourages the re-manufacture of parts that are in operation yet no longer cutting-edge, with the likely effect of raising operating companies’ interest in components recycling, while exerting downward pressure on the overall lifetime generation per wind farm. On the other hand, there have been effective manufacturing innovations, such as the reduction of composite waste from blades, that are not sufficiently explained by existing Marxian ecological theory, but are rather a product of environmental transitions among competitive and state-owned enterprises that must invest and innovate to maintain certain sustainability credentials in the market. Finally, the paper finally draws these two trends together by exploring the position of various groups of offshore wind manufacturing and operations workers in relation to the environmental impacts of their production processes and that of the industry lifecycle as a whole, casting light on the limits of a circular economy perspective.

Jasper Finkeldey (Halle): *Heavy Industries and Green Capitalism: A Love-Hate Relationship*

The heavy industries as part of the manufacturing industry require large capital investments in machinery and plants, big markets, complex industrial organisation, a skilled labour force and generate large output. Heavy-industry products such as plastics, steel or fertilizers are key materials in the green transition under green capitalism. However, for their large environmental footprint, the heavy industries are a difficult to incorporate in green capitalism. While the heavy industries have been the “poster boys” of old industrial capitalism, they are now becoming under fire for standing in the way of sustainability. Today the green transition in the heavy industries is creating new social relations and economic incentive structures. Drawing on secondary sources as well as qualitative interviews and observations with a number of European steelmakers, union representatives and politicians in Germany, France and Italy, I inquire how the European industry is negotiating the green transition. There is demand for the industry to decarbonise by using new production processes such as using climate-neutral green hydrogen for energy input. Taking the heavy industry and more precisely the steel sector as example, I am answering two sets of questions. (1) Green Steel: What are the respective positions of government, steel industry and labour unions on the question of green steel? What new alliances can be identified? Who opposes the transition to green steel on what grounds? (2) Alienation reversed? Work under in green transition industries is supposedly less alienating as production is closer to sustainable practice. Are labour relations in the green steel industry less alienating than before? Preliminary results from my study indicate that some union representatives see green steel as a threat to jobs. Companies rely on subsidies from government to build new green steel facilities. Governments try to find a new equilibrium between the demands of domestic industry and labour unions in the face of global market competition.

Lili Vanko (CEU): *Under a Green Guise: A New Wave of Restructuring and Accumulation in Lusatia*

Taking the unfolding energy transition — the contested socio-spatial reorganisation of energy, industrial production, and labour — as a vantage point, I trace the shifting structures of fossil capital, and the concomitant rise of a new ecological regime, ushering in a new wave of accumulation from renewable energy production, post-extraction recultivation, and green industrial ventures. Underlying the old fossil-based and the new ‘green’ accumulation regime is the interlinked exploitation and double commodification, of nature and labour, both systematically undermined by the drive to accumulate. Putting in conversation literature on uneven development and the production of space with ecological Marxism, I focus on labour’s agency and the mediating role of the state. I will conduct ethnographic fieldwork on a site of coal phase-out and low-carbon energy transition in the peripheralised East German region of Lusatia, Germany’s ‘laboratory for decarbonisation’. In contrast to habitual rounds of capitalist

restructuring and fixes, in Lusatia, cycles of disinvestment and devaluation and a new wave of green investment play out on the same production sites and across the same sectors of the economy. This renders Lusatia a strategic site to study these intensely localized processes, that — owing to Germany's paramount role in climate and energy policies — bear EU-wide and global implications for the future of energy-society relations. Despite huge investments flows, the establishment of a new 'green' accumulation regime replicates experiences of restructuring in the 90's, creating new axes of labour fragmentation, new alliances with fractions of capital, and redrawing local fields of contention. The ambitious post-mining recultivation schemes, bearing the elusive promise of attracting tourism to post-industrial sites and artificial lakes, face significant ecological challenges due to ecosystems ravaged by decades of lignite mining. For Lusatians, the future risks becoming a thinly disguised version of the present — a risk inherent in technomanagerially led, ecomodernising energy transition processes that my project seeks to unravel.

Rocio Hiraldo Lopez-Alonso (Sevilla): *Any room for the political (and ecological) composition of the working class? Insights from fragmented environmental classism in the Spanish capitalist energy decarbonisation*

In Spain, capital is leading a rapid energy decarbonisation that is impacting the working class in different, often contradictory ways: massive layoffs due to the rapid and unexpected dismantlement of coal-fired power plants; the occupation of terrestrial and maritime ecosystems used by small scale farmers and fishermen through the installation of solar and wind farms; labour exploitation in the renewable energy sector in areas historically devastated by unemployment; massive layoffs due to the closure of wind turbine factories. While all produced by capital, mobilisations against these effects remain parallel. This paper departs from the idea that tackling the injustices around energy “transitions” requires engagement with the various fragmentations and apparent contradictions within the working class. It therefore contributes to the scholarly literature on the labour injustices and mobilisations around emerging green capitalist economies by exploring the opportunities and challenges around the political composition of the working class in a context where the speed of the changes produced by energy capital put working class people in a reactive position, thus less able to challenge the ecological fragmentations and contradictions they face. Focusing on the Spanish regions of Galicia and Andalusia, the paper first studies the implications of energy decarbonisation for the labour and living conditions of working class people, and mobilisations around such implications. The paper then presents findings from a series of dialogues between working class people differently affected by the capitalist energy decarbonisation, aimed at reflecting ways to develop mutual understanding, support and alliances to move forward. Finally drawing on these results, which highlight the need to look at the capitalist energy “transition” as a class process (based on the treatment of labour as a disposable object, environmental classism and the concentration of decision-making power in the hands of capital), it discusses the key opportunities and obstacles to unite the

working class against capital and for socio-environmental and climate justice in the energy “transition”.

11:30-13:00 Industrial Decarbonization and the State (Unter den Linden 6: 2249A)

John Szabó (CERS/DIW Berlin): *Electricity and Hydrogen: Different Democratising Potential in Green Capitalism?*

Green capitalism hinges on the decarbonisation of the current energy system, with its form deeply dependent on energy sources, energy carriers, and the respective power relations that their use perpetuates. Discussions tend to be dominated by the diffusion of renewable energy sources, even though a green transition hinges on sweeping electrification and the uptake of alternatives for difficult-to-electrify sectors—hydrogen being a prime contender for the latter. Renewable-based electricity carries the potential to democratise and/or socialise the energy sector, breaking with capitalist tendencies inherent in fossil capitalism by enabling decentralised energy production, but does this also apply to hydrogen? Hydrogen infrastructure — as currently discussed — tends to embody quite different power relations to that of small-scale, decentralised renewable electricity. The long-standing and deeply entrenched role of natural gas interests have provided a firm base for hydrogen to take on a role in the energy transition, effectively allowing them to avoid stranded assets and perpetuating the pre-existing accumulation regime. Its renewable energy-based variant is more disruptive in that it breaks with fossil capitalism and adheres to a newly forming logic of green capitalism. But can its use help democratise the energy sector? This paper explores how the political economy of electricity is different to that of hydrogen by discussing their historical roles and discourse in the EU. It shows how states and capital expanded respective networks—both infrastructure and regulations—at the European-level, and how their respective potential and roles are unfolding amidst the energy transition.

Stephan Stuckmann (MPIfG): *Negotiating Industrial Decarbonization – State-Industry Relations and the Role of Sectoral Production Structures*

Amidst geopolitical fractures and decarbonization pressures, states increasingly turn to industrial policies in an effort to square growth imperatives with decarbonization goals. In an optimistic version, some policy makers and scholars expect green industrial policies to simultaneously decarbonize and modernize growth models through an adoption of low-carbon technologies and the creation of new jobs. Recent contributions describe these changing state-industry relations as 'decarbonization bargains' (Kupzok and Nahm, 2024): Industries that were formerly part of fossil coalitions implement the necessary changes to their production processes in exchange for various forms of state support (finance, infrastructure, energy). However, the reality reveals an uneven and uncertain picture even for countries with high potential for such bargains like Germany. Under which conditions, then, can decarbonization bargains be successful and

when do they fail? Which sectors can strike successful decarbonization bargains and why is this the case? This contribution develops a structural power framework that foregrounds the material conditions of decarbonization. Whereas industries depend on the state to secure access to stable and affordable energy supplies like renewable electricity and hydrogen in addition to co-financing up-front investments, states require the transition towards low-carbon production to make due on promises of green modernization. These mutual dependencies produce an iterative bargaining process in which sector-specific characteristics obstruct or enable a successful outcome. For example, more complex production processes that integrate different product lines require a higher degree of coordination and risk efficiency losses, resulting in lower profitability. This can produce a stale mate situation in which structurally weak states cannot enforce strict decarbonization pathways and industries remain within their fossil-based production models. To illustrate this argument, I present preliminary observations from Germany in the form of two vignettes: business model divergence in the chemical industry and fossil re-negotiations in the steel industry. Both industries vary in their production complexity and consequently, their success in negotiating decarbonization bargains with steel being better placed to phase out fossil fuels from production. However, current investment activities, low uptake of new industrial policy tools like carbon contracts for difference, and ownership changes in both sectors show that restructuring fossil-dependent production structures is no linear process. As a consequence, decarbonizing Germany's growth model remains a contested process between fossil and green capital interests.

Lasse Thiele (Konzeptwerk Neue Ökonomie): *“Green” capitalism’s geopolitical turn: The Case of Hydrogen*

With a view to the recent surge in state support for hydrogen, this contribution investigates the ambivalent implications of the contemporary increase in geopolitical tensions for the development of “green” capitalism. While the ongoing, partially geopolitically motivated reconfiguration of industrial policy approaches could potentially advance the infrastructural foundations of a green-capitalist accumulation regime, the larger dynamics at work simultaneously appear to reinforce fossil capital’s political-economic resilience. The recent “hydrogen hype” reproduces a series of familiar green-capitalist contradictions, from false promises of abundance to the intertwining of fossil and renewable infrastructures, from the downplaying of political-economic conflicts to the romanticization of asymmetric North-South trade relations. Such continuities notwithstanding, the hydrogen industry’s rise simultaneously reflects significant *changes* in the political-economic environment, with geopolitical conflict in particular having propelled a palpable paradigm shift towards more active industrial policy. As hydrogen suggests opportunities for governments to diversify energy supplies, secure supply chains, protect “critical” domestic industries and advance decarbonization, the hydrogen industry now benefits from large-scale state support to an extent that seemed out of reach for “green” industries during the “classic” period of late-neoliberal green-capitalist thought. The broader paradigm shift in industrial policy exemplified here may help to overcome the long period of stalled progress rooted

in an ineffective reliance on private-sector investment for large-scale infrastructural transformations. These new infrastructures could push the current limits of “green” productive forces outward: in the case of hydrogen, by facilitating long-distance trade in renewable energy (thus overcoming local supply limitations) and enabling the decarbonization of hard-to-electrify sectors including steelmaking, chemical industries and shipping. In the EU, however, neoliberal continuities in fiscal policy and public funding strategies effectively restrict the new industrial policy’s impact. At the same time, the forces of geopolitical conflict favor “all of the above” approaches to energy security while fueling the hegemonic ascent of right-wing forces, both of which benefit fossil capital. Progress towards a green-capitalist accumulation regime is thus restricted to the infrastructural, engineered in a technocratic mode of governance; the development of a corresponding green-capitalist mode of regulation – beyond evolving state-industry relations – thus remains blocked. The same appears true of emancipatory alternatives capable of transcending the hegemonic rivalry between fossil and “green” capital.

14:00-15:30 (Post)Extractivist Regimes

Lela Rekhviashviki (Leibniz Institute for Regional Geography): *Green Capitalism in the Periphery: The Making of a Green Extractivist Regime*

Drawing on an analysis of the development of renewable energy infrastructure, particularly hydropower, in Georgia, I argue in this article that green capitalism is transforming some of peripheral economies previously characterized as resource-poor into green extractivist economies that resemble typical energy-rich extractivist regimes. I trace the transformation of Georgia’s energy system from the privatization of the absolute majority of Soviet-inherited energy infrastructure in the 1990s, to the creation of an FDI-dependent and infrastructure-led development regime focused on greenfield energy infrastructure since the mid-2000s, to the declaration of an export-oriented increase in electricity generation capacity and authoritarian consolidation since the early 2020s. The green-extractivist regime in the making indiscriminately exposes all river valleys to the construction of hydroelectric plants of various sizes, with successive Georgian governments signing 214 contracts over the past two decades and identifying more than 2000 other potential HPP projects. This creates a series of social and ecological hazards and undermines the possibilities of sustaining human and more than human life throughout the territory of this small peripheral country. The authoritarian and export-oriented character of Georgia’s energy politics has been forged since the early 2020s in the face of a number of challenges and opportunities: widespread opposition to hydropower, the achievement of de facto self-sufficiency in electricity generation after a large crypto-mining company left Georgia, significant capital inflows into energy infrastructure, and the European Union’s commitment to build an undersea power cable between Georgia and Romania. The extractive character of this project is not limited to the imposition of immense social and environmental costs to serve the decarbonization needs of the world’s richer economies. It also extends to financial extraction, organized

through de-risking, by which returns are guaranteed to private (financial) capital, while all political and commercial risks are borne by the fiscal capacities of the state. Drawing on this example, which is representative for the EU's member and non-member Southern and Eastern peripheral states, I add to existing arguments that in making new recourse frontiers, green capitalism imposes dispossession and devastation, previously unseen by relatively resource poor peripheries.

Youssef Al Bouchi (UBC): *Green Extractivism and illusions of sustainable development, Lithium in Bolivia*

This presentation delves into the contradictions of sustainable development by engaging with literature on green extractivism. I ground my discussion in previous research published in 2023, which examined the political ecology of “eco-socialist” and “post-neoliberal” Bolivia’s lithium nationalization and industrialization plan. This study analyzed the socio-ecological impacts of lithium extraction, the power structures shaping and shaped by lithium commodification, and Bolivia’s position in the world-system. The findings indicate that: (1) lithium extraction threatens local Indigenous communities with social dislocation and dispossession, as it disrupts their self-subsistent agrarian activities; (2) the commodification of the *Salar de Uyuni* has sparked inter- and intra-communal conflicts over the distribution of economic benefits, property rights, and political representation; and (3) the absence of capital and pre-existing industrial and technological capacity forced concessions in Bolivia’s nationalization plans, re-inscribing its dependency on foreign capital. For this presentation, I will expand on this research, situating it within broader discussions on green extractivism and climate justice, as well as explore other contexts where nation-states in the Global South develop strategies centered around the extraction of “critical” and “transition” minerals. In doing so, I will address the conference organizers’ invitation to engage with a) social relations under green capitalism, b) the role of the state in capitalist natures, and c) contemporary and future accumulation regimes.

Alie Hermanutz (York University): *Externalizing Fossil Capitalist Liabilities in Alberta’s Hydrocarbon Economies*

My research is a response to the phenomenon of deserted oil and gas infrastructure in the province of Alberta, Canada. My project focuses on fossil capitalist firms’ legal obligations to both process waste and stranded capital’s end-of-life care (oil and gas wells, pipelines, processing facilities) through a political ecological and economic lens. As I have a professional background in geo-environmental sciences, my work focuses on the geophysical processes of production. This proposed combined framework, Critical Physical Geology (CPG), is a result of the rich existing ecological Marxist research (i.e., Alvaer, 2007; Labban 2009; Malm, 2016; Zalik, 2008) leaving gaps in empirical analysis of the technology and processes of hydrocarbons lives. This framework helps address questions surrounding ‘orphaned’ oil and gas assets which no longer have any legal or financial guardians to take care of them, due to financial stress or intentional desertion. I argue that despite the provincial Alberta Energy Regulator (AER)

recognizing the sundowning of hydrocarbon production in the province, their leadership has done little to address the growing crisis of deserted assets. While they do little, the local ecologies, people, and public coffers of the province are absorbing the socioenvironmental costs of extraction today (i.e, O’Connor). I demonstrate this through analysis of 1) the institutional history of the AER that has allowed massive mismanagement of hydrocarbon firm insolvency, the lingering of environmental hazards, and unsecured liabilities; 2) the conditions under which different forms of geotechnical labour operates to produce fossil capitalist value while externalizing production costs; 3) the ways in which settler colonialism and fossil capitalism shape wasting associated extraction, processing, and export, and the largely Indigenous-led resistance to this destruction and the dispossession of traditional territories. My research responds to questions in the moments of transition from fossil capitalism and the role of the state as the question of managing stranded/deserted hydrocarbon assets is at the very centre of my research. For now, the state and its regulatory mosaic are responsible for mediating between fossil capital and nature, but they have failed to meaningfully protect anyone (or any local ecologies) except for the Canadian and transnational fossil capitalist elite and their firms’ shareholders. As the external conditions of production in Alberta continue to deteriorate, the work of the state and private capitals to develop climate capitalist solutions appears ready to grow.

14:00-15:30 **Green State Regulations and Ideologies (Unter den Linden 6: 2249A)**

Guy Crawford (UCL/Warwick): *Capital Accumulation and Environmental Compensation: The State as Socio-Natural Relation*

We live in an era of extreme anthropogenic environmental change unleashed by the global spread of the capitalist mode of production. The extent of biodiversity loss, in this age of the “Capitalocene” (Moore, 2018), is unprecedented in all human history – we are witnessing a “sixth mass extinction” (Ceballos et al., 2017). Market-based solutions to environmental crises are hegemonic in policy-making circles and moves to establish new “economies of repair” (Fairhead et al., 2012) are now well established (see Apostolopoulou et al., 2021; Dempsey, 2016; Stoner, 2021). One such example of this trend is biodiversity offsetting: where “additional” conservation and/or restoration efforts are implemented to compensate for environmental degradation that derives from the accumulation of capital elsewhere. Based on empirical research, this paper explores the formulation and implementation of a national state-mandated system of biodiversity offsetting in Colombia, which obligates firms subject to environmental licensing regulations to fund compensatory activities. Theoretically, this analysis deploys works within the tradition of Marxist state theory (Ioris, 2014; Jessop, 2016) to examine the capitalist state as a socio-natural relation: an institutional terrain upon which competing social forces advance material interests, which is central to the mediation of socio-natural relations and the production of nature (Parenti, 2015; Smith, 2010). While Colombia’s Ministry of Environment and Sustainable Development, which oversees environmental licensing, has instigated offsets as a

condition of production (Felli, 2014) – serving to divert surplus value toward the production of “equivalent” biodiversity gains – this paper demonstrates the ways in which the actions of forces within and beyond the formal boundaries of the state apparatus have served to influence and obstruct attempts to arrive at “no net loss” to biodiversity. The empirics of this analysis provide valuable insights into the tensions that emerge when states act to construct biodiversity as a rent-bearing asset and point to the limitations of the green economy as a state project.

References:

Apostolopoulou, E., Chatzimentor, A., Maestre-Andrés, S., Requena-i-Mora, M., Pizarro, A. & Bormpoudakis, D. (2021) Reviewing 15 years of research on neoliberal conservation: Towards a decolonial, interdisciplinary, intersectional and community-engaged research agenda. *Geoforum*, Vol. 124: 236-256.
 Ceballos, G., Ehrlich, P.R., & Dirzo, R. (2017) Biological annihilation via the ongoing sixth mass extinction signalled by vertebrate population losses and declines. *Proceedings of the National Academy of Sciences of the United States of America*, Vol. 114(30): E6089-E6096.
 Dempsey, J. (2016) *Enterprising Nature: Economics, Markets, and Finance in Global Biodiversity Politics*. Chichester: John Wiley & Sons, Ltd.
 Fairhead, J., Leach, M. & Scoones, I. (2012) Green grabbing: A new appropriation of nature? *Journal of Peasant Studies*, Vol. 39(2): 237-261.
 Felli, R. (2014) On Climate Rent. *Historical Materialism*, Vol. 22(3-4): 251-280.
 Ioris, A. A. R. (2014) *The Political Ecology of the State: The basis and the evolution of environmental statehood*. London: Routledge.
 Jessop, B. (2016) *The State: Past, Present, Future*. Cambridge: Polity Press.
 Moore, J. (2018) The Capitalocene Part II: Accumulation by appropriation and the centrality of unpaid work/energy. *The Journal of Peasant Studies*, Vol. 45(2): 237-279.
 Parenti, C. (2015) The 2013 Antipode AAG Lecture. The Environment-Making State: Territory, Nature, and Value. *Antipode*, Vol. 47(4): 829-848.
 Smith, N. (2010) *Uneven Development: Nature, Capital, and the Production of Space*. 3rd edition. London: Verso.
 Stoner, A. M. (2021) Things are Getting Worse on Our Way to Catastrophe: Neoliberal Environmentalism, Repressive Desublimation, and the Autonomous Ecoconsumer. *Critical Sociology*, Vol. 47(3): 491-506.

Victoria Myznikova (LMU Munich): *Paint it Green: Russian ‘Political Capitalists’ in the Race for Lithium*

With 4.5 percent of global carbon dioxide emissions, Russia currently is the fourth biggest emitter globally. It is also one of the biggest exporters of oil, gas, and, in the last ten years, also coal. The Russian state is highly dependent on fossil-fuel revenues, which were making up 56% of export income and 39% of the federal budget in the ‘normal’, pre-invasion of Ukraine and pre-pandemic years (Gustafson, 2021). In the public discourse, Russia is often associated with the most obdurate climate denial. Yet, since 2020, the Russian state as well as its ruling classes have seriously set about the task of developing both ‘green’ industries and markets and ‘green’ legislation to support them. This paper aims to investigate the intricate relationship between Russia’s fossil fuel-reliant ruling class, the infant ‘green’ sectors of its semi-peripheral economy, and the ever-severer environmental and economic impacts of climate change. Employing the theoretical framework of Marxist geography and Marxist ecology, the study aims to identify the particularities of the formation of the ‘green’ capitalism in Russia as well as its

typical traits and its place in the global political-economic dynamics. In order to do that, I analyze two Russian lithium development projects in the Murmansk region and Bolivia, organized by the Russian State Atomic Energy Corporation, Rosatom. The research emphasizes the always-territorial nature of production (Neel, 2021) and employs such conceptualizations as overcapacity (Brenner 2003 and 2006, Smith J. 2020, Benanav 2020) and security-sustainability nexus (Riofrancos, 2023). The hypothesis posits that Russia’s ‘green’ projects and hastily developed ‘green’ legislation represent the local ‘political capitalist’ (Ishchenko 2024) class’s acceptance of the new reality of ‘green’ capitalism as well as their belated attempt to carve themselves a niche in the growing ‘green’ markets and to get included in global ‘green’ supply chains. While fossil fuels remain the priority, Russian ruling classes are aware of the fact that they will sustain significant losses unless they restructure their economy in accordance with the changing economic and ecological landscapes.

References

1. Benanav, Aaron (2020). *Automation and the Future of Work*, New York: Verso.
 2. Brenner, Robert (2003). *The Boom and the Bubble: The US in the World Economy*, New York: Verso.
 3. Gustafson, Thane (2021). *Klimat: Russia in the Age of Climate Change*, Harvard: Harvard University Press.
 4. Ishchenko, Volodymyr (2024). *Towards the Abyss: Ukraine from Maidan to War*, New York: Verso.
 5. Neel, Phillip (2021). *Global China, Global Crisis: Falling Profitability, Rising Capital Exports and the Formation of New Territorial Industrial Complexes*, University of Washington (Dissertation)
 6. Riofrancos, Thea (2023). *The Security–Sustainability Nexus: Lithium Onshoring in the Global North*, *Global Environmental Politics* 23(1): 20–41.
 7. Smith, Jason (2020). *Smart Machines and Service Work: Automation in an Age of Stagnation*, London: Reaktion Books.

Julian Germann (Sussex), **Lucia Barcena** (TNI) [Mads Barbesgaard, Lund]: *Green Ambitions, Structural Realities: Capital, the State, and the EU’s Critical Raw Materials Strategy*

This paper critically examines the European Union (EU)’s Green Deal Industrial Plan (GDIP), focusing on its strategy for securing critical raw materials. Touted as the key to achieving ‘net zero’ carbon emissions by 2050 and mobilising substantial fiscal and financial resources, the GDIP is arguably the prime example of a ‘green capitalism’ in the making. Critics have countered that the shift to supposedly greener technologies also intensifies the demand for and indeed the scramble for resources, especially in the Global South, calling for closer scrutiny and concrete inquiry. Our paper addresses and advances these concerns both empirically and theoretically. We develop a new methodology to build a supply chain map for a specific critical raw material (as identified by the EU) from extraction to end use: niobium. Niobium is primarily used to enhance the strength, flexibility, and lightness of steel products. Although the EU underscores its use in green technology, we demonstrate empirically that niobium’s supply chain is dominated by automotive, aerospace, and arms firms, i.e., leading segments of carbon capital. The case study of niobium provides new evidence that the GDIP does not break

with the prevailing accumulation regime. At least some of the critical raw materials continue to serve carbon-intensive and military purposes rather than a genuine green transition. Moreover, the growing attention given to niobium as an input into weapons manufacturing suggests that alongside the continued exploitation of nature, an emergent green capitalism also accelerates militarisation and ramps up capacities for the destruction of human life. Our conclusion aims to contribute to the conference's aim to bridge theoretical reflection and empirical examination. We argue that the imperative to accumulate capital undermines the social and ecological conditions of life even when it ostensibly serves these needs; and in a territorially divided world, capitalism's competitive drive for new technologies and the necessary raw materials is prone to exacerbate tensions between national states. In this way, our paper aims to open up space for discussing the ecological as well as geopolitical contradictions of actually existing green capitalism.

Isabel Oakes (Oxford): *Idyllischer Gartenzwergkapitalismus: A Distinct Ordoliberal Environmental Framework?*

This paper critically examines the claim that German neoliberalism, or ordoliberalism, as developed by Walter Eucken, Alexander Rüstow, and Wilhelm Röpke in the 1930s, demonstrated an 'ecological awareness' that prefigured modern environmental concerns in Germany. Advocates of ordoliberalism have championed it as a 'robust institutional framework' for addressing climate change, a narrative that has permeated not only academic discourse but also mainstream politics. Even the once-radical Green Party, has embraced 'green ordoliberalism' as a viable solution to today's environmental crises. More specifically, this framework has been realised as a 'socio-ecological market economy', as described in the Bundestag's 2024 Annual Economic Report, representing Germany's variant of green capitalism. I argue that ordoliberal environmental thought is inherently conservative and laden with elitist and racist assumptions that echo the *völkisch* movement. Despite a growing body of scholarship on ordoliberalism, there remains a conspicuous gap in examining its ideas about nature, especially from a critical perspective. This 'environmental' framework has been described as 'idyllic garden gnome capitalism', presenting a nostalgic vision of a static, carefully ordered society, detached from the realities of modern capitalism. This anthropocentric environmentalism values nature for its utility to human identity and well-being, rather than its intrinsic and ecological worth. This conservative framework, along with the ongoing commitment to it, serves as a barrier to achieving meaningful socio-ecological transformation. By constraining the discourse, it stifles more radical, nature-centric approaches. This paper aims to highlight these blind spots and promote a more critical understanding of ordoliberalism's environmental legacy.

16:00-17:30 Finance for Green Capital

Vicky Kluzik (Goethe University Frankfurt): *Nature after Economics: The Anatomy of Biosolutionism, or: How to Make Nature Investable.*

In the context of multiple economic and ecological crises of the present, questions of how to value and valorize nature have been given increasing prominence. The intensification of the commodification of life and 'accumulation through conservation' (Büscher and Fletcher 2015) show the extent to which the safeguarding of species and ecological futures is increasingly outsourced to capital markets, leading to a conceptual framing of nature as a 'planetary service economy' or as an 'asset' (Nelson 2015, Dempsey 2016). How did nature become calculable? This contribution provides a cartography of economic solutions to ecological crises from an historically informed and interdisciplinary perspective. Focusing on the period between the late 1960s and the present, it examines the intellectual history of market-based approaches to integrating nature into circuits of capital. I investigate how nature has become *calculable*, *governable* and *investable* throughout a time span of 50 years through the dis/continuities in the interwoven intellectual trajectories of the economy vis-à-vis ecology. The aim is to chart the paradoxes of valorizing/valuing more-than-human labour in economic thought from the late 1960s to the present, departing from the thesis of interlocking processes of the economization of nature vis-à-vis the environmentalization of economics. In doing so, I center economic expertise as a core feature of 'green capitalism' (or, 'eco-capitalist realism', as put forward by Barca 2020), understood as an emergent phenomenon that has been fueled through the rise of neoliberalism. Against common conceptions of the economization of nature with the consolidation of 'ecosystem services' in the late 1990s, I trace early attempts to take 'nature into account/ing' the late 1960s. It is with the 'birth of ecological economics' and the rise of 'demographic solutionism' (or: neomalthusianism) at this time as nature first became calculable: the twin sciences of economics and ecology were knitted together to their etymological origin, the oikos. Conceptually, I put forward the argument that the economization of nature can be fruitfully understood through the register of *biosolutionism*, i.e. the regime of governing environmental crises under conditions of uncertainty about the future with the adaptation of (bio-)economic solutions. This analytical approach reconsiders long-standing debates of the value, nature, reproductive labour and techno-economic fixes for environmental crises.

References

- Barca, Stefania. 2020. *Forces of Reproduction: Notes for a Counter-Hegemonic Anthropocene*. Cambridge: Cambridge University Press
- Büscher, Bram, and Robert Fletcher. 2015. 'Accumulation by Conservation'. *New Political Economy* 20(2):273–98
- Dempsey, Jessica. 2016. *Enterprising Nature: Economics, Markets, and Finance in Global Biodiversity Politics*. New York: Wiley Blackwell.
- Nelson, Sara Holiday. 2015. 'Beyond the Limits to Growth: Ecology and the Neoliberal Counterrevolution'. *Antipode* 47(2):461–80.

Edoardo Esposto (Sapienza) [Tiziana Nupieri, Giulia Salaris]: *Sustainable Financial Development? The Role of Finance in Shaping the Green Accumulation Regime.*

The debate on the transformation of accumulation regimes has since long established the importance of the complementarity between economic and extra-

economic conditions that enable capital accumulation. The *régulation* school has insisted on the interlinked institutional forms that constitute, in their various reciprocal dispositions, a distinctive mode of regulation of the accumulation process (see *inter alia* Boyer 2002). The neo-Gramscian approach to the study of accumulation regimes, as developed in particular by Bob Jessop (1983; 1997; 2009), has shed light on the role that politico-economic imaginaries, institutional configurations, and ideational constellations play in shaping accumulation strategies and make them adhere to the hegemonic project of a particular class fraction. The current global accumulation regime has been widely characterized as ‘finance-dominated,’ ‘finance-led,’ or ‘financialized’ (see *inter alia* Boyer 2000; Stockhammer 2008; Foster 2010). Without engaging here with the rich debate on the nature, functioning, and limits of a financial-led accumulation regime (see *inter alia* Christophers 2015; Toporowski 2018), we understand it as a regime where interest-bearing capital (IBC) has an increasingly central function in the total movement of capital (Christophers & Fine 2020). Consequently, IBC appropriates a larger share of surplus value, and its associate class fraction plays a hegemonic role in the political and civil society. The interlinkages between green growth and financialization have been discussed in the literature, in particular the proliferation of green assets and the centrality acquired by sustainability accounting for investment decisions (see *inter alia* Hiss 2013; Brand & Wissen 2018; Woschnack *et al.* 2021). Less explored is, however, how finance shapes current regulatory and policy initiatives directed toward green growth to make them compatible with its accumulation strategies. In other words, how do the hegemonic projects of the IBC class fraction redefine sustainability and green transition? The contribution answers this question through the empirical analysis of the EU regulatory initiative on sustainable finance, the *EU Taxonomy*, i.e., the classification of economic activities that align with the EU’s environmental and social sustainability definition. An expert advisory board, the *Platform on Sustainable Finance* (PSF), was formed by the European Commission to support the definition of the Taxonomy, bringing together participants from public financial institutions, private financial and non-financial firms, lobbying groups, NGOs, and academia. The interpretive analysis of the policy statements and reports of the PSF, conducted via critical discourse analysis, will allow us to describe how the normative and cognitive representations put forward by financial actors shape the conceptualization of environmental and social sustainability adopted by the EU.

Max Willems (MPIfG): *Transition Treaties: Project Finance and the New Green De-risking Infrastructures.*

The political project of ‘green growth’ relies on the buildout of clean energy production and manufacturing capacities at a massive scale. Given the high fixed costs of these green investments, large amounts of capital are needed. Policymakers have formed a consensus that this should be achieved in large parts by mobilizing private finance. The concept of de-risking (Gabor) provides a compelling intuition of how this paradigm changes state-capital relations along economic change. However, this emerging literature so far lacks a detailed analysis

of the specific (range of) policies de-risking green investments and the financing practices associated with them. Nor has it developed a perspective on the economic actors involved in de-risking green investments, their distinct interests, and their power to steer structural economic change in their favour. This paper seeks to provide such a perspective by theorizing the evolving ‘de-risking infrastructure’ for financing green assets – linking different private economic actors from finance, energy and industrial production – that has been created by different de-risking policies. I argue that green industrial policies (such as feed-in tariffs for renewable energy and subsidies for green manufacturing) have strongly contributed to the rise of project financing structures. In turn, project finance – given its heavy reliance on cash flow projections in the risk assessment – has increased the need for revenue de-risking, which is increasingly done through bilateral contracts (e.g. power purchase agreements) between corporate actors. The argument is illustrated using two emblematic cases on the sell and buy side of clean electricity: a large-scale wind project and a green steel production project, both located in Europe – the heartland of project finance-based de-risking. The article’s approach to the policy instruments, the actors involved, and the historical evolution of de-risking practices facilitates a deeper understanding of the state-market relations generated by the emerging green accumulation regime. It shows how – as the mutual dependency between financier and policymaking has increased the ‘infrastructural power’ (Braun) of investment firms and commercial banks over the implementation of green infrastructure policy – the power of finance and economic structural change go hand in hand under the green growth paradigm. This dynamic has important consequences not only for the speed, but for the distributional outcomes and, ultimately, the social acceptance of the green transition.

Jens Christiansen (Lund): *State-as-market, market-as-governor: How the financialization of nature embeds public finance within market-based environmental governance.*

Environmental breakdown and global warming have gradually leaked into state coffers. To understand how climatic change and biophysical environments are being governed through financial measures, it is increasingly necessary to call attention to environmental finance’s interactions with public fiscal policy. Not only is austerity (in the Global North) and structural adjustment programmes (for the Global South) central backdrops that influence the financialization of environments, but various financial mechanisms that have conventionally been considered part of market-based approaches are increasingly being integrated into state finances. Emerging as a stylized fact (Clark and Wójcik, 2024), this tendency requires a conceptualization of environmental market-making and the state beyond “roll-in” and “roll-out” neoliberalism (cf. McCarthy and Prudham, 2004). Synthesizing critical state theory (O’Connor, 2001; Parenti, 2015; Wullweber, 2020) and critical accounting studies (Christophers, 2011; Miller and Rose, 2008; Power, 2004), *this paper explores how environmental finance mechanisms insert themselves into (and affect) governmental rationalities of the state.* While the current Western fiscal paradigm is certainly politically biased in favor of de-risking

financial capital (August et al., 2022), this paper nuances such debates by showing, first, how environmental finance mechanisms create “fiscal hybridity” (Spies-Butcher and Bryant, 2024), which places the state in relation to other actors in the market. Secondly, while being market-based, these mechanisms occupy a spectrum between surveillance that governs markets at a distance and measures for directly intervening in the circuit of capital (Wullweber, 2020). Reviewing tradable permit systems (Bigger, 2018), environmental tax credits (Kay and Tapp, 2022), catastrophe insurance (Chamberlain and Bernards, 2024; Grove, 2021) and “green” debt (Christiansen, 2024; Standing, 2023), the analysis provides a synthetic account of the financialization of “nature” (Ouma et al., 2018), which nuances scholarly understandings of how the state—particularly through its fiscal policies—acts *within* the market and is furthermore itself conditioned *by* market-based power beyond its own formal boundaries. Furthermore, advancing the emerging literature on fiscal geography (Tapp and Kay, 2023), the analysis thus shows the different ways financialization of nature situates public finance in relation to market-based environmental governance.

References

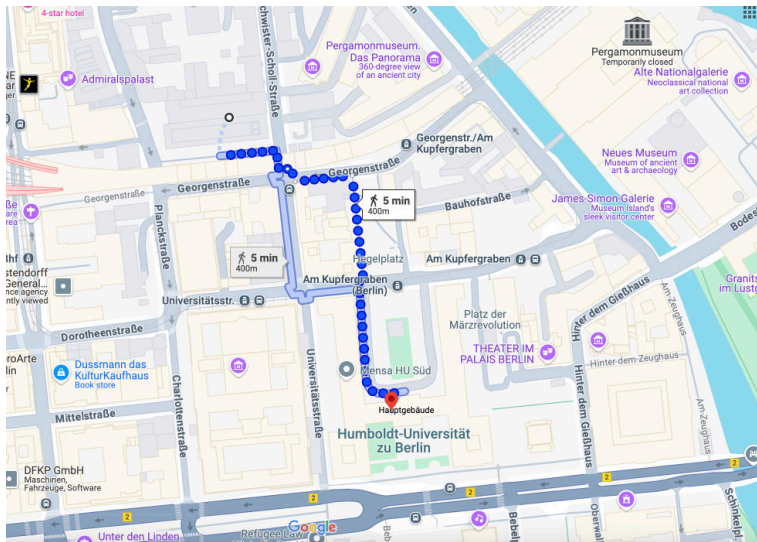
- August, M., Cohen, D., Danyluk, M., Kass, A., Ponder, C. S., & Rosenman, E. (2022). Reimagining geographies of public finance. *Progress in Human Geography*, 46(2), 527-548.
- Bigger, P. (2018). Hybridity, possibility: Degrees of marketization in tradeable permit systems. *Environment and Planning A: Economy and Space*, 50(3), 512-530.
- Chamberlain, J., & Bernards, N. (2024). Insurance and the contradictions of the climate-development-finance nexus: The case of the African Risk Capacity. *Competition & Change*, 10245294241226985.
- Christiansen, J. (2024). State capacity and the ‘value’ of sustainable finance: Understanding the state-mediated rent and value production through the Seychelles Blue Bonds. *Environment and Planning A: Economy and Space*, 56(2), 402-417.
- Christophers, B. (2011). Follow the thing: money. *Environment and Planning D: Society and Space*, 29(6), 1068-1084.
- Clark, G. L., & Wójcik, D. (2024). Stylised facts and close dialogue redux. *Environment and Planning F*, 26349825241255689.
- Grove, K. (2021). Insurantialization and the moral economy of ex ante risk management in the Caribbean. *Economy and Society*, 50(2), 224-247.
- Kay, K., & Tapp, R. (2022). Un/making assets: The institutional limits to financialization. *Annals of the American Association of Geographers*, 112(5), 1243-1259.
- McCarthy, J., & Prudham, S. (2004). Neoliberal nature and the nature of neoliberalism. *Geoforum*, 35(3), 275-283.
- Miller, P., & Rose, N. (2008). *Governing the present: Administering economic, social and personal life*. Polity.
- O'Connor, J. R. (2001[1973]). *The Fiscal Crisis of the State*. Routledge.
- Ouma, S., Johnson, L., & Bigger, P. (2018). Rethinking the financialization of ‘nature’. *Environment and Planning A: Economy and Space*, 50(3), 500-511.
- Parenti, C. (2015). The 2013 ANTIPODE AAG lecture the environment making state: Territory, nature, and value. *Antipode*, 47(4), 829-848.
- Power, M. (2004). Counting, control and calculation: Reflections on measuring and management. *Human relations*, 57(6), 765-783.
- Spies-Butcher, B., & Bryant, G. (2024). The history and future of the tax state: Possibilities for a new fiscal politics beyond neoliberalism. *Critical perspectives on accounting*, 98, 102596.
- Standing, A. (2023). The financialization of marine conservation: the case of debt-for-ocean swaps. *Development*, 66(1), 46-57.
- Tapp, R., & Kay, K. (2023). Fiscal geographies between the crisis and the pandemic. *Environment and Planning A: Economy and Space*, 55(7), 1738-1743.

Wullweber, J. (2020). Embedded finance: the shadow banking system, sovereign power, and a new state–market hybridity. *Journal of Cultural Economy*, 13(5), 592-609.

17:45-19:00 Keynote

Brett Christophers (Uppsala): *Market Failure: Climate Crisis, Green Energy and the Limits of Capitalism*

Grimm Zentrum to Unter den Linden 6, Room 2249A



Links:

<https://bauten.hu-berlin.de/de/grimm/auditorium>

<https://cmb.hu-berlin.de/>

<https://criticaltheoryinberlin.de/>

<https://www.soziphil.uni-leipzig.de/global-and-european-studies-institute>