

JOURNAL OF WORLD-SYSTEMS RESEARCH

ISSN: 1076-156X | Vol. 32 Issue 1 | DOI: 10.5195/jwsr.2026.1429| jwsr.pitt.edu

Editor's Introduction

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As we begin a new journey with the *Journal of World-Systems Research* (JWSR), we would like to take a minute to thank the previous editorial team of Andrej Grubacic and Rallie Murray who led JWSR for the past four years through the Fall/Winter 2025 issue. Their efforts and continuous work have sustained JWSR for years, for which we are deeply grateful.



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Second, we would like to take a moment to introduce ourselves as the new editors of JWSR.

Devparna Roy works as an Associate Professor of Sociology at Nazareth University (Rochester, New York). She also directs the Global Sustainability Program at Nazareth University. She earned her master's degree in the sociology of international development from Utah State University and her doctoral degree in development sociology from Cornell University. Prior to pursuing higher studies in the United States, Dr. Roy earned a master's degree in biotechnology from the Maharaja Sayajirao University of Baroda in Gujarat, India. She has also worked as a full-time journalist with India's leading financial daily, *The Economic Times*, where she reported on environmental issues such as the *Narmada Bachao Andolan* (Save the River Narmada Movement). Dr. Roy primarily uses the lens of agri-food systems (with a focus on agroecology and the political economy of genetically modified seeds) to understand contemporary debates in the world systems school of analysis, critical agrarian studies, and development studies.

Daniel Pasciuti is Associate Professor at Georgia State University. Dr Pasciuti completed his PhD at Johns Hopkins University under the direction of Beverly Silver and Giovanni Arrighi, prior to his passing. Prior to moving to Georgia State University, he previously served as a postdoctoral fellow and Assistant Research Scientist with the [Arrighi Center for Global Studies](#), and as a research assistant for Christopher Chase-Dunn at the [Institute for Research on World-Systems \(IROWS\)](#) at the University of California Riverside. His research focuses on urban governance and housing to understand how changes in the global economy challenge the ability to rebuild urban space in the 21st century. He co-leads the Georgia Community Impact Partnership (GCIP) and the interdisciplinary Center for Research on Disabilities (iCORD) at Georgia State University.

Madelief Tilder is a Sociology Dual BA/MA student at Georgia State University, working under the direction of Dr. Daniel Pasciuti. Her research investigates the interconnected roles of criminal justice, urban housing, and public health in generating and sustaining inequality, with particular attention to how institutions of punishment, governance, and care shape life outcomes within and between communities. Born and raised in the Netherlands and relocated to the US in 2019, she utilizes world-systems frameworks in situating inequality within broader structures of capital, governance, and global power. During her undergraduate years, Madelief served as a project associate at the Georgia State Prison Education Project, and as a policy researcher at the [Georgia Coalition for Higher Education in Prisons](#). She later served as a graduate research assistant at [Shepherd Center](#). Currently, Madelief works as a graduate research assistant at [Project Healthy Grandparents](#) and a Managing Editor for the *Journal of World-Systems Research*.

Jun Yang is a first-year Joint MA/PhD student in Sociology at Georgia State University. Her research interests include health, the life course, gender, and social inequality, with particular attention to how family roles, social institutions, and broader structural conditions shape individual well-being across the life course. Before coming to the United States, she completed a bachelor's

degree in Political Science and a master's degree in Sociology in China, experiences that continue to inform her comparative and interdisciplinary perspective on social life. She currently serves as Managing Editor for the *Journal of World-Systems Research*.

Hadley Briglin is an undergraduate at Nazareth University (Rochester, New York) in the Honors College majoring in Sociology and minoring in Spanish. She started attending Nazareth University in 2025 after spending a year studying at Onondaga Community College in Syracuse, New York. Her research interests include gender, technology, and social inequality. Hadley Briglin joined the Editorial Team for the *Journal of World-Systems Research* as a managing editor in 2026.

In the first issue of JWSR for 2026, we are honored to publish the second part of a two-part interview with the historian and world systems scholar Dale Tomich, conducted by his student and friend Juan Giusti-Cordero between January and July 2024. The interview offers a unique opportunity to engage directly with the development of the relational methodology that lies at the heart of world systems analysis. Dale insisted that the innovation of scholars like Immanuel Wallerstein and Fernand Braudel was more than just an emphasis on broader geographic or longer temporal perspectives. It was the formulation of theoretical and methodological foundations for a new unified social science.

We are pleased to feature a diverse array of nine research articles in this issue. Covering different aspects of reproduction and crises of capitalism, authors touch on a set of recurrent themes: from adaptation through technocracy, migration, environmental exploitation, and digital governance, to labor as a strategic site to both hegemonic rise and systemic transformation. These articles demonstrate violence as a structural feature of the world system but also demonstrate key spaces of resistance and alternatives that provide hope and guidance.

The first article in this issue, by Glen David Kuecker, **“Resisting Capitalist Reproduction in the Liminal State,”** rethinks resistance in a period of world system transition by arguing that capitalism is reproducing itself through the technocratic 2030 Agenda and advocating pluriversal, counter-power strategies to challenge that process and pursue a just transition.

The next article, by Stephen Wilkinson, **“Theorizing the Interregnum: The Semi-Core Challenge to Western Hegemony, Technical Workers and the Shaping of a *New World Order*”**, analyzes the current geopolitical and economic interregnum, arguing that a rising “semi-core” challenges Western hegemony and opens conditions for systemic transformation. Drawing on Bauman, Chinese Marxism, and recent Chinese and Russian policy texts, it emphasizes the role of technical workers positioned between rival infrastructural and epistemological systems. Wilkinson argues the transformative potential lies not only in strategic expertise but in fostering solidarity across global AI labor while bridging fundamentally different philosophical and infrastructural orders.

Jimmy Engren and Lars Hansson's article **"Migration as a Prelude to Hegemony: An Integrated Comparison of Migration Processes in the Early Modern Dutch State and the United States"** discussed the importance of labor migrations to a state's rising hegemonic status in the world-system using a comparison between the Dutch rise to hegemony and the U.S. rise to hegemony.

In **"Haitian Reserve Army of Labor: A Product of Geopolitical, Endemic, and Phenomenological Violence"** Dery and Molinero-Gerbeau offer an interdisciplinary analysis that bridges a Marxist political economy framework with a historical analysis of Haitian violence to theorize the country's labor force as a globally constructed Reserve Army of Labor. Drawing on centuries of colonialism, political instability, and economic exploitation, the authors trace how enduring regimes of violence have positioned Haitian workers as a source of cheap labor benefitting global powers at the expense of Haiti's own national development.

Continuing the discussion on labor, we have Lipon Mondal's article **"Theorizing Labor Control in the Global Apparel Industry: A Case of Bangladesh"**, which examines labor control in Bangladesh's apparel industry. Based on factory-level research, it argues that market and non-market actors jointly exploit workers through legal and illegal coercion, structural violence, and informal power. This reinforces global capitalist inequality across all stages of labor control in a new regime called social despotism.

Next, we have four articles focusing on questions of political ecology and technological transformation:

Piotr Walewicz's article **"Cheap Water, Catastrophic Costs: The Political Ecology of the Oder's Transformation"** analyzes the history of the exploitation of the Oder River up to the 2022 ecological disaster, exploring how water is undervalued in the capitalist world-system through the concept of "Cheap Water."

Rice's article **"Lead Battery Recycling and the Ecologically Unequal Exchange of a Crescive Contaminant Across the U.S.-Mexico Border"** examines a central contradiction within an industry that is widely celebrated as ecologically modern. The tightening of US lead emission standards in 2008 drove hundreds of millions of batteries across the border for recycling. Rice argues that this regulatory asymmetry is a form of ecologically unequal exchange that produces racialized environmental violence by exposing Mexican border communities to lead contamination at thresholds far exceeding US standards.

JiaYing Lyu's article, **"Revisiting World-Systems Theory in the Age of Dual-Core Competition: Technological Disruption, Institutional Shifts, and the Repositioning of the**

Periphery,” revisits world-systems theory under intensifying U.S. and China rivalry and shows that, despite greater fluidity and new bargaining spaces, structural inequalities in rule-setting, finance, and technological standards continue to constrain mobility in the periphery.

Finally, the Sarsenova, et. al. article **“Development of Information Technologies and Specifics of their Use to Reach Ideological Goals: International Experience and Practices”**, examines how states use information technology for ideological and political purposes. Analyzing the U.S., China, Kazakhstan, and selected EU states, it shows divergent strategies, ranging from state control and censorship to content regulation and cybersecurity, while highlighting a shared trend of using social media to shape political attitudes and historical memory.

We are also pleased to feature a symposium, produced by Professor Alexander White, on Claire Decoteau’s book *Emergency: COVID-19 and the Uneven Valuation of Life* from the University of Chicago Press. We hope that you enjoy this symposium based upon comments from a 2025 author meets critics discussion at the Eastern Sociological Society Conference between Gowri Vijayakumar, Robin Wagner-Pacifi, Joseph Harris, and the author Claire Decoteau. Between August 2020 and May 2021 Dr. Decoteau worked with four graduate students: Cal Garrett, Fructuso Basaldua, Cindy Brito and Bianca Perez to recruit interviewees from across the city of Chicago at a time when COVID-19 made any sort of qualitative analysis incredibly challenging. Interviewing Chicagoans living under increased public health focus because of COVID-19, those subjectified and hailed as Essential Workers as well as policy makers and health professionals, *Emergency* captures the struggles of communities living under the weight of legacies of racism, structural neglect and oppression and the limits of addressing systemic harms through the lens of emergency response.

Finally, as we observe the current global turmoil, we are excited to introduce a new events commentary series; [Caravanserai](#). Just like the fortified roadside inns of the previous ages, we hope to offer scholars of world systems a safe harbor to work through contemporary events and help each other make more sense of the current global, regional, and local crises. The first of our series was graciously authored by Christopher Chase-Dunn who invites us to think about the election of Mamdani in New York and the potential future of moving the global system in a more progressive direction and the future of democracy to counter the current rising autocracy. We invite you to join us on this journey with us, at Caravanserai. If you wish to contribute, please send submission to Devparna Roy or Dan Pasciuti of 2,000 to 5,000 words examining any current events topic from a *longue durée* perspective.

We are happy to conclude that world-systems scholarship is in good shape. As we enter this age of turbulence and transition, the unidisciplinary project that turns conventional social science on its head, and breaks with liberal narratives of capitalism and modernity, offers a lot of analytical clarity, promise, and hope.



Dale Tomich (1946-2024) ...in His Own Words (Part II)¹ Interviews, February-June 2024 by Juan Giusti-Cordero

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Dale Tomich, who passed away in August 2024, had a singular trajectory as a Caribbean scholar. His best-known work, *Slavery in the Circuit of Sugar: Martinique and the World Economy (1830-1848)* (1990) stands rather apart in Caribbean historiography, even though his construct of the “second slavery” has been fertile for Atlantic history (Blackburn 2024; Dal Lago 2025). Tomich has been especially recognized beyond the United States, where his work was at the cutting edge of scholarship in political economy, Marxist theory, theoretical history, and historical methodology. Over the course of four decades, Tomich’s books and essays have been seminal for “contextualizing and theorizing the history of the modern world economy, particularly the role of New World slavery (the plantation) in the construction of modern capitalism.” (Crichlow and Ciusti 2024: 249). Dale’s close understanding of Caribbean and Brazilian history, which he merged into a study of Atlantic history, built bridges where few scholars have crossed. Always self-effacing, he did not often discuss his remarkable intellectual path; yet it is relevant to understand the multiple layers of his work, its wider context, and its possibilities.

¹ Part I appeared in *Journal of World-Systems Research* Summer/Autumn 2025,31(2); DOI 10.5195/JWSR.2025.1359



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The following interviews catch a glimpse of Dale as he looked back on his intellectual trajectory. After a period of remission, his health had begun to deteriorate in February 2024 and by June it had worsened considerably. At first, Dale had been a bit skeptical about talking much about this personal life—who would care about this, he would ask. Quite Dale. But then we got into the swing of the interviews and he was eager to go back in time. Dale was ready to talk about his own making.

Dale obtained his BA (1968) and PhD (1975) in Madison. While a History undergraduate, Dale worked under Robert Starobin. Starobin broke new ground in the historiography of enslavement and was a vehement academic voice of the emerging Black Power movement. In 1968, Dale wrote together with Starobin and by himself for *Radical America*, the leading magazine of the New Left at the time.

Dale's interest in the Caribbean was largely self-driven and self-taught, as Wisconsin did not have a Caribbean studies program (no U.S. universities did at the time). Dale found that U.S. history was too narrowly focused on the United States itself, and that this was a particular shortcoming for the study of slavery. His selection of Martinique for his graduate work was a compromise with Harvey Goldberg, whose work on French political history and Socialist politics at least offered some connection with France's Antillean colonies.

The key influences for Dale's heterodox interpretation of Marx are C.L.R. James, E. P. Thompson, Gyorgy Lukács, Karl Korsch, Renato Panzieri and *operaismo*, Roman Rosdolsky, Immanuel Wallerstein, Terry Hopkins, Fernand Braudel, Sidney Mintz, Catherine Coquery-Vidrovitch, Harvey Goldberg, Joan Scott, Georges Haupt, Detroit's worker-intellectual General Baker, and the Chicago surrealist Franklin Rosemont, to mention the most salient.

Dale's move to a teaching position in the Binghamton Sociology Department marked a new chapter. Dale taught there from 1976 until his retirement in 2020 and collaborated in the Fernand Braudel Center with Immanuel Wallerstein and Terence Hopkins.

The last two interviews, unlike the previous seven, were not on Skype (our standard means of communication). These final interviews were in Syracuse, where Dale was under treatment, and Dale and his wife Luiza Franco Moreira, were fighting his last battles. Naturally, Dale was exhausted from the treatment and from going back and forth between hospital and rehab. In these last two interviews, Dale's recollections were slower, but his memory, critical acumen, and sense of humor were all there.

Part I of this article (published in the Autumn/Spring 2025 issue of this journal) contained the following segments: I. Radical America; II. Juvenalia; III. From CLR James to the League of Revolutionary Black Workers; IV. Slavery and Capitalism; V. Autonomismo/Operaismo; VI. Wisconsin Byways; and VII. Paris Archives. Part II of this article (in this issue) contains the

following segments: VIII. Prelude to Binghamton; IX. Rosdolsky; X. Sidney Mintz; XI. Binghamton Networks; XII. Emancipation in the Circuit of Sugar; and Postscript.

VIII. PRELUDE TO BINGHAMTON

DALE: I wrote a dissertation that stuck to the sources (Tomich 1975). I had a good chapter on the plantation; I had a reasonable chapter on the slaves. But there are other chapters that were just there, on the politics of the colonial administration and stuff like that. I had a monograph that would lend itself to a kind of comparative history. I wasn't happy about it, but I had no real clue of what to do with that.²

The dissertation was economic, but also political. Trying to focus on Martinique and bringing in French politics. I had certainly read *Black Jacobins* and *Capitalism and Slavery*. And I just instinctively felt the whole approach to American black history was inadequate because it was national. And I thought studying slavery—and this is all crazy stuff because of what subsequently happened—I thought by studying black history or Caribbean history, I would see black history in a wider global panorama. And the Caribbean seemed a very good place to do that. Sid (Mintz), in that sense, synchronized very much with both C.L.R. and with Eric Williams. I felt that was a kind of break out of US history, the provincialism of US history, so I was excited about that.

The way Wisconsin worked, I was petrified about publishing my dissertation, it had to be perfect. I came back, I wrote it up, I defended it. I applied to every job, everywhere, I got none of them. Then along came Binghamton.³ And I didn't know where it was. What I knew is it was the place where Starobin had died. It was a terrible story. Bob Starobin was a wonderful guy and I liked him immensely. And he was very kind to me. I could only see it as a tragedy. He was a really good historian, wonderful family, and he got very tied up with the

² [In the dissertation] I had the core of the plantation and production that came pretty much from C.L.R. The modernity of the plantation was the epigraph of the dissertation, too. I had this idea from everyone I read that I wasn't in the mode of production thing, this is something modern and new and slavery was modern and capitalist, and how did that work" (Tomich 2024, p. 340).

³ Binghamton, in the "Southern Tier" of New York, was long a manufacturing locale with major shoe manufacturers Endicott-Johnson and the IBM headquarters in adjacent Endicott, until World War II. Binghamton's population was declining by the 1960s and is now at almost half its 1950s levels. The establishment of the State University of New York (SUNY) campus in Vestal (1950) gave the Binghamton region renewed impetus. Binghamton is named for William Bingham, reputedly the wealthiest man in the young American republic. Bingham made his initial fortune between 1776 and 1779 as agent/spy of the Continental Congress, as well as a privateer, smuggler, and (surely) slave trader... in Martinique.

Panthers and was running around the country. So I was just turned off by the whole thing.⁴ But, when I came to Binghamton I began to see things—it was Terry [Hopkins], really—a different methodology, a different way of approaching the whole subject of slavery and capitalism.⁵

⁴ Starobin had confrontations with Black activists over his interest in the history of personal relations between enslavers and the enslaved, particularly house servants and drivers. Starobin aimed to understand the complexity of African-Americans and the origin of divisions within the black community, often in evidence even in the militant Black 1960s. To the extent that “accommodation” (the key word) might imply an adaptation to enslavement and racism, it was (and of course remains) a most controversial topic.

The worst incident was actually in Detroit, in a conference at Wayne State University in February 1969. “Starobin’s session dissolved into a ‘terrible confrontation’ that surprised many of the white scholars in the audience” (McMillian, 2002, pp. 164-65) The panel included Genovese, historian Sterling Stuckey (then a Ph.D. student at Northwestern) and journalist and academic Julius Lester. Stuckey and Lester were prominent Black nationalists. Starobin gave a paper based on letters between house servants and drivers and their enslavers, which he had presented at the American Historical Association. Stuckey “ridiculed Starobin’s understanding” by reading aloud some letters from enslaved persons that Starobin had just read, except now “in an overly-sarcastic black dialect” (Forcey, 1978, p. 165). Lester also critiqued Starobin’s paper. Stuckey and Lester then walked out of the audience, “to thunderous applause.”

Starobin’s experience in Detroit did not, however, deter his activism or his scholarship. Starobin revised his Wayne State paper and published it with a note of appreciation to Stuckey, Genovese and Lester for their “incisive criticism” (Starobin, 1971). Lester later reconsidered his position in the Wayne State fracas. He apologized to Starobin and corresponded with him over several months (Lester, 1971).

While on a fellowship at Cornell, Starobin was involved in the Black students’ uprising there (April 1969). His BA was from Cornell, class of ‘61, and he had worked in the campus newspaper. The movement at Cornell caught national attention with magazine covers that featured Black students brandishing rifles. Starobin and three others were barred from protest activities on campus by an injunction (later lifted). Over the next year, Starobin’s personal situation worsened. In August 1970, Starobin wrote to Lester that he was caught in “the contradiction between my scholarly interests and profession and my desire to do more revolutionary deeds.” Starobin died by suicide a few months later.

Some have seen Starobin as a case study on the contradictions of US white radicalism in the 1960s. Lester’s text is perhaps the most eloquent. (See also Lichtenstein, 1991; McMillian, 2002). Others, like Lewis Feuer, invoked Starobin’s demise as a cautionary tale on the “mutual hatred, bitterness, and disillusionment” of the New Left in the 1970s and even as a reflection of its “patterns of suicidalism and terrorism” (Feuer, 1972, p. 173). There is a Binghamton dissertation in Political Science on Starobin (Forcey, 1978). Starobin’s upbringing and political roots had some bearing on his career; his father was a renowned journalist who was foreign editor of the *Daily Worker* in the early 1950s. One can only surmise what the impact of Starobin’s trajectory had on Dale at the time, and we did not speak much about the matter beyond these interviews. But the risks and contradictions of involvement in radical – and perhaps especially Black politics – for a white academic intellectual were up front and personal for Dale, who knew Starobin well, admired him, and would share Starobin’s well-founded skepticism about US academia.

⁵ “What I do is take Immanuel’s’ problem or conception and rework it through in my own work on slavery through Terry’s method. If you read all the stuff that I’ve written, Terry’s method impregnates everything. It’s always there” (Tomich, 2024, p. 309).

IX. ROSDOLSKY

DALE: In Binghamton, after the first two years teaching undergraduate classes, I began teaching the introductory world-system course with Wallerstein, as well as Theory (Theoretical Studies). I think students wanted me to teach it. Terry and Immanuel were very emphatic that it not be theory-theory, but that it be theory that spoke to the world-systems project, that it be linked to history. What I would say now is that I made the Theory course about Marxist method in history, which was the right thing to do.

In 1977, I got an NEH Summer grant to go to Martinique. I'd never been to Martinique. I got there, the archives were in really bad shape. They'd left them for almost a hundred years in a warehouse down by the bay. Humidity and animals that just chewed them all to shreds. In the film *Parole des Negres* they have this 1846 official bulletin, with all the trial proceeds in it. They open up a leatherbound book and it's beautiful, all paper. I never saw a document like that in three months. Everything was shredded and it was like trying to read a paper doily, and most of it would just crumble into dust when I opened the box.

What I want to tell you is that when the archive was closed—it's quite different now, I think—I would go down to the center of Fort-de-France, where there's a promenade, La Savanne, with the statue of Josephine. Off the other side is the restaurant bar that caters to the local planters, and no one else could go there. I sat on a bench under a palm tree, reading *Capital*, cover to cover. And what was really cool about it was on Sundays, back in the day, Frantz Fanon's brothers would take their Sunday stroll on the Savanne. So I think how cool it is to be sitting reading this in Martinique, where Fanon... And it's got to be good reading because it's not sitting in some library in Paris. Another angle. So that's when I read *Capital* all the way through and not just chapters.

JUAN: But not *Grundrisse* yet?

DALE: Right after that and when I had to teach it, I had read enough of *Grundrisse* to see that it was important. I probably read it for Rosdolsky's article on *New German Critique* (Rosdolsky, 1974).

It's a paper from a colloquium on the hundredth anniversary of *Capital* [1967], and it was delivered right before Poulantzas spoke.⁶ And Rosdolsky's paper just blew that whole crowd. When I came already, I had read *History and Class Consciousness* and had read Korsch a a lot.

So Korsch and Lukacs, and then *Grundrisse* was the place to go. It had to be, because I was an editor of *New German Critique* when they published Rosdolsky [No. 3, Autumn, 1974]. It's a great article and I use it for everything.

JUAN: How did you become involved in *New German Critique*? Did they have a presence in Wisconsin?

DALE: Yeah, David Bathrick, the editor of *New German Critique*, lived two blocks from me and we became close friends. He published a lot of translations. My German was rudimentary but he wanted me on the editorial board.

JUAN: You were there for how many years?

DALE: Four years. It got to the point to—it was going in a direction where I really had nothing to contribute. They were getting off into more and more theoretical literary debates. But that issue with Rosdolsky articles is great. So I had done all these things. And none of that translated into anything academic for me.

JUAN: Yep, I know the feeling.

DALE: Being on the editorial board counted for nothing. In fact, I thought I had to hide it.

So let me see and just get this out of my head. I studied Rosdolsky and the *Grundrisse* side by side for a very long time. And that was really my fundamental experience. I spent two or three years where I didn't write anything. I was just reading Rosdolsky, *Grundrisse* and *Capital* and trying to think through the slavery business.

⁶ The symposium was held in Frankfurt in September 1967 and its proceedings were published the following year (Euchner and Schmidt, 1968). Rosdolsky's article was the opening paper of the colloquium. Rosdolsky was not on hand to read it for reasons of health; he died in Detroit one month later. In his paper, Rosdolsky foreshadowed the publication of his seminal work, *The Making of Marx's Capital* (first edition in German, 1968). *The Making of Marx's Capital* was published in English in 1980. Rosdolsky's paper (pp. 9-20 of the symposium proceedings) was indeed followed by Nicos Poulantzas' comments, pp. 21-30. Poulantzas' disagreements were fundamental. The true method of *Capital*, he contended, was not Hegelian but rather "presupposes a relative autonomy of the processes of thought vis-à-vis reality." Poulantzas' own presentation, which was the third paper in the symposium, was titled "Theory and History - Brief Remarks on the Subject of 'Capitals'."

Rosdolsky's article in *New German Critique* was a real turning point for me, because that's what got me into the *Grundrisse* and showed me how to read it. When we published that, Anson (Andy) Rabinbach called the Wayne State University History Department.⁷ And when he asked the chair about Rosdolsky and the guy says, Rosdolsky, Rosdolsky... Oh, he must be the guy with the funny accent at the end of the hallway, I haven't seen him around for a while. And Rosdolsky had been dead for like five years. He lived in Detroit, that's how he wound up, in exile.

JUAN: He was in Wayne State formally for a year, and then apparently after that, he was in and out of Detroit, travelling to Europe, until he died in 1967.

DALE: If you read the things I wrote against Althusser, you can see all the things that Rosdolsky firmed up for me and gave me a framework. And then I went and read Rosdolsky's *The Making of Capital*. So, the course you took [in Binghamton] was really always about Capital. Adam Smith and Polanyi were there, but it was really about the *Grundrisse* and *Capital* and reading Rosdolsky.

JUAN: On Rosdolsky, several things stand out for me. He came from Galicia, a disputed territory, but he identified as Ukrainian. Rosdolsky had a strong agrarian background in his family and he was very historically minded; he researched Ukraine's rural history and has several writings on peasants. His father was an ethnographer and directed a museum. I had no sense of that background.

DALE: And Rosdolsky wrote a book on serfdom (1962). Ukraine has all these really theoretical, sophisticated roots. It turns out I'm sitting here with the book of Henryk Grossman, he's from Ukraine.⁸

JUAN: There's very interesting people from that area. Eugen Ehrlich, from Bukovina⁹ who did sociology of law from a historical standpoint and studied peasant communities. Those

⁷ Besides Rosdolsky, in the early 1970s Wayne State's faculty included Martin Glaberman (who alternated teaching with auto factory work), and Oliver Cox in a visiting position. Connections between Rosdolsky and Cox are unknown.

⁸ Henryk Grossman (1881-1950) was born in Galicia, the Austrian-ruled territory of partitioned Poland. He wrote *The Law of Accumulation and Breakdown of the Capitalist System*. (Leiden: Brill, 2021). See Rick Kuhn (2007). Haupt was Romanian, from Transylvania.

⁹ Bukovina was part of Romania since 1918 but was eventually divided between Romania and Soviet (then independent) Ukraine.

were interests that Rosdolsky maintained throughout his life. Material that was published but also things that were never published, on peasant social relations and relationships between peasants and landholding classes, and were they feudal or not. Rosdolsky did a critique of Engels' characterization of certain agrarian sectors as progressive bourgeois.

DALE: Rosdolsky's book on "peoples without history" upends all of the Marx-Engels writing about that, from the point of view of Marx's own method.¹⁰ So if you read the book on nationalities, it's all about Marxist method and how Marx violates his own method. The big thing particularly from the *New German Critique* article was the importance of form. The form, not talking about modes of production. I thought it was much more flexible and historical, which I think it is... He talked about Marx as theory of forms. So that was a way of really undoing the whole Althusserian, mechanical, reified set of categories.

JUAN: One of the articles on Rosdolsky has a critique of Martin Nicolau's foreword to *Grundrisse* and how he misunderstood the relationship between *Grundrisse* and *Capital* and treated *Grundrisse* as a very rough approach to the ideas that finally Marx got right in *Capital*. But Rosdolsky said, No, it's all the same. It's just the method of investigation following a more historical perspective.

DALE: That's where my theoretical history and historical theory comes from. Rosdolsky doesn't say it, but that's me thinking about the implications of that. The presentation is logical, theoretical. It presumes a history, but it's not the history. And England is an example. So, I think what I'm doing is pretty unorthodox but I think it's right. I don't know, I still have been working toward it, but I think all of *Capital* is just an elaboration of commodity fetishism. It's about reconstructing the fetish over and over and over through different determinations, it has to do with value, but you never see value. I don't know. I don't still understand it, but we can talk about it...

¹⁰Friedrich Engels y el problema de los pueblos "sin historia": la cuestión de las nacionalidades en la revolución de 1849-49 a la luz de la "Neue Rheinische Zeitung". (Mexico: Ediciones Pasado y Presente, 1980) (Friedrich Engels and the problem of the "peoples without history": the question of nationalities in the Revolution of 1849-49 in light of the "Neue Rheinische Zeitung").

X. SIDNEY MINTZ

JUAN: What was the first of Sid's work that you read?

DALE: Well, I don't know. I read scattered papers. He always seemed to explain a lot to me. So, I began. [For my Master's thesis] I was writing on Césaire, which was crazy because I didn't know anything about poetry. It was kind of a cultural political history of Césaire.

JUAN: You mentioned to me once how you found *Caribbean Transformations*...

DALE: That was the big thing. The History offices were right downtown. I had this discussion with Harvey, and we decided that I would do the Caribbean. And I walked out of his office and across the street, and there was in a used-bookshop window a copy of *Caribbean Transformations* for \$11, which was a lot for a book back then. And I ran in and bought it instantly and took it and read it cover to cover and just immersed myself in it. And that really gave me a kind of, you know, my take on the Caribbean, because I thought it meshed with Thompson and a lot of other stuff I was interested in. It was really cool. So, I just kept reading Sid because it was the best social history of labor. C.L.R. is great in certain ways, but Sid really kind of grounded things. I didn't know Sid at all.

JUAN: Where do you think that C.L.R. ended and Sid began? I mean in terms of your thematic.

DALE: C.L.R. James sticks close to an unorthodox reading of Marx that was very attractive to me. And for all the reasons we've talked about, I wanted to be a Marxist historian of a certain type, not a Stalinist, but I wanted to see something in Marx that would deepen my understanding of history. So, if I would study Marx more, I would understand history better. I always had a very systematic theoretical interest that never left me, though I was modest about calling myself a theoretician, and I always tried to give what I was doing

an empirical grounding. Partly because my German wasn't that good and I thought that to be a real Marxist theoretician I should be fluent in German, which I wasn't.

So, you get these really insightful things of Marxist inspiration from C.L.R.. At the end of the day, he would kind of give you an empirical example or fill them out. But then they stopped working, they would just kind of come to an end. Whereas I think Sid didn't have the big theoretical proposal, but he really showed how you could reconstruct working lives of, you know, a slave population. Each complemented the other. But the more I went with the history, I think the more Sid grounded me in that I really was trying to reconstruct specific contexts of action at a level that was not so easy to find in C.L.R. where it was kind of universal... I mean, it's not really universal in C.L.R., but I was trying to go beyond C.L.R. and really reconstruct the lives and experiences of working people in Martinique. That didn't really work because I didn't have the documentation, which I was very committed to. But it took me away into how to read the history of the plantation and the official documents that I had. So, counter all of the last thirty years of [inaudible], reading against the grain and so forth—and this goes back to E. P. Thompson—I always thought that historians read against the grain. You can't be a historian without reading against the grain. No one's writing the history for you, you've got to figure it out from what they've left and the historical documentation or just the traces that have been left behind.

So, I wrote a dissertation that was OK and in some ways interesting, but I didn't really like it. I was working that out. I had sent—preposterously, pretentiously—a copy to Sid. We had never met. And I believe he wrote me back a very nice letter, and he annotated my dissertation quite carefully and had all kinds of suggestions. Then Sid came to Binghamton that first year for a talk. I believe that's when I first met him, and I

got to spend a lot of time with him.¹¹ He was always kind to me and took an interest in me. After we met we wrote a lot, talked a lot. I can't give you a chronology. Several times I went to Baltimore and stayed with him for a weekend, or I would send him stuff I was writing. We went to some conferences and he would always yell at me for being a so-so speaker and not writing enough. Up to the end, I think he was quite surprised when we all went to Brazil (in 2009) because until he went there, I don't think he was aware what a life I carved out in Brazil instead of the US. I think he didn't expect that. He was always on my case. But he supported me, always wrote letters for me.

It was the great thing about Sid. He just took me under his wing, and he always treated me as if I was one of his students. Like in the videos that Olivia took at the Hotel Arpoador in Rio, Sid said, "Dale was never my student, but Dale's my student."¹² Everything I did about the Caribbean in a substantive way was really formed by the problems he set. I always thought it was amazing. We weren't his students, but he was interested in what we were doing. He just had a way of making complicated things simple and clear, which I still haven't mastered.

JUAN: Sidney had many strands in his work. One of the themes I was most interested was his approach to geography, ecology, material environmental history. What do you think yours were?

DALE: Also, that, but probably in a different way than you. Sid was really looking for a kind of spatial specificity and how specific geographies condition specific histories. So that was.

¹¹ "I read Sid before I started working on the Caribbean, and then when I started to work on it, I read everything by him because I thought it just made everything so clear" (Tomich 2024, p. 342).

¹² Olivia Maria da Gomes Cunha, Professor of Anthropology at the Museu Nacional, Universidade Federal do Rio de Janeiro.

was a way to get a handle on the complexity of the Caribbean. So that was interesting to me.

JUAN: Sid's class characterization of peasants and proletarians was also important for me. And the way he constructed definitions that were perspectives more than definitions. For you it was more in terms of slaves. I was more interested in rural proletarians.

DALE: I thought the whole discussion was important because it brought labor into the history of slavery in a way that others didn't. And the labor was tied to the material processes of life, which then go back to geography. So, all of that seemed really good to me in terms of digging out of the hole. And there would be stuff that he would write to that I didn't get, and we would write about it. In some things we never connected with each other. He would write it, I would write, and we wouldn't connect to each other. The glaring example in my head now, which isn't really the most prominent one, was the whole thing about Black and Spanish, to see that as a product of linguistics.¹³ I never got it. I thought there were so many other things you could look at and construct a rich historical explanation. But, you know, just things like that were just so unimportant given the richness of what he was doing.

¹³ In his later years, and specifically in *Three ancient colonies: Caribbean themes and variations* (2010), Mintz argued that the main dividing line in Caribbean history was not primarily race but rather language; in particular, whether or not a Kreyòl language developed in a given society. The premise was that such Kreyòls developed in the nominally anglophone, francophone and Dutch-speaking Caribbean, and that they did not develop at any time in the hispanophone Caribbean. In 2010, Dale interviewed Sid and produced a video titled *Caribbean Journey: Conversations with Sidney Mintz* (2011). The interview covers Sid's Caribbean career from his 1940s research in Puerto Rico. Towards the end of the interview, Dale questioned the validity of proposing Kreyòl languages as a "key" to Caribbean history. I shall focus here on Mintz's methodology of "successive approximations."

JUAN: There were approaches I missed in his work, major areas that would seem to be logical, reasonable extensions of his work; at least for comparative frameworks, for operationalizing his theories. One of those areas is Brazil that unfortunately he never looked at closely and where you worked so extensively. And I think it would have challenged and enriched his writings on peasants and slaves...Also, as we were talking before, the Saint Domingue revolution. He didn't focus on it, and it would have been an interesting counterpoint with C.L.R. James.

DALE: Absolutely. But I think that's where he was.

JUAN: On the other hand, Sid was among the first to really approach the Spanish Caribbean in a systematic way that allowed you to see it in tension especially with the British Caribbean, and not in an abstract way

DALE: Yes, there was something about what he did that broke down Eurocentrism or the components of it.

From Dale's 2010 interview with Sid Mintz:

Tomich: Well, let me try to just push you a little bit on this, that one of the things that I think is distinctive about your work is that you've had a sustained reflection over many years on certain themes: rural proletarians, slaves and peasantry, the plantation, sugar. But you've never chosen one of them as the key to Caribbean history, and you've always looked at the relations among them over time and their ways, they combine with one another and the variations among them. [...]

Mintz: Yes, of course, I mean, I agree with you, and I think that I have tried to do what you're suggesting. It seemed to me, as I've worked over this material often through the years, that what I've wanted to do was to make successive approximations. And here I'm thinking about the work of a European historian, Jan Gross, who talks about thinking circularly and revisiting a number of themes repeatedly and making, as he says, I think, **successive approximations** of reality so that people end up not so much with conclusions about the angles and how it how it truly happened, not with a firm sense of that, but with a better sense of what the context was for these particular forces, how they worked in relationship to each other" (emphasis supplied).

Jan Gross called "successive approximations" a "circuitous effort" that may not produce an "either-or" story laid out in a chronological sequence." "Instead, we must poke the pile repeatedly from many directions and at different angles, or else important residue will always remain. What I offer here, therefore, is not diachronic but analytical history". "The flow of events is marked and distinct in the book, but it is also refracted in successive attempts to problematize issues from a perspective that is slightly but constantly changing.

Furthermore, the text is in dialogic relationship with the footnotes, sometimes closing off and sometimes opening up alternative interpretive vistas" (Gross, 2006, p: xiii).

JUAN: Though on the US, Sid's work was very limited. He really didn't deal much with it.

DALE: I always thought that as wonderful as Sid was, he was also kind of constrained by the Ivy League. And that he wasn't going to outstep his professional boundary. I know in certain cases he didn't. Anyhow, on a personal level Sid was just tremendously generous to me. Several times he would invite me down for the weekend, or there was this famous event with Richard Price and the Saramakas, and he said why don't you come down and stay with us and we'll go to this thing? It's always a bit mystifying. Here's this guy who was, you know, the prince, in my eyes. And just so just decent and kind to me and supportive of everything. Something about my work caught his eye. He helped me develop it.

Sid was the reason I went to Brazil. They wanted an American to replace Peter Eisenberg as I recall. And he said, why don't you take this guy? For a year as a Fulbright. Who was I? I was at the seventh year in Binghamton and hadn't published anything. Sid just said this is the guy you need to have. And so there I went. For me, it was really astounding. And, you know, like, I would buy him books and things and send to him. I was always very grateful and tried to reciprocate in some way. But who does that?

In a 2019 manuscript, Dale used "successive approximations" as the title of a manuscript on Atlantic history. In the manuscript's introduction, he wrote: "'Successive approximations' effectively expresses the analytical and interpretive approach to Atlantic slavery that I have taken here as well as the structure of the book itself [...] My intention is not to write a general history of the Atlantic. Rather, through a series of interrelated chapters whose focus is at once historical and historiographical, I propose a theoretical-historical framework through which we might examine different dimensions of Atlantic history and their interrelation and explore new ways of thinking about slavery in the Americas."

JUAN: So like you've told me before, you can't try to read into Sid's work more than what he's saying; and that to look for deficiencies in his argument or for themes he should have explored, but didn't, is to not understand what he's doing. This was good advice when I was doing my dissertation, because I was frustrated about things that I thought Sid stated halfway or not usefully enough for what I was doing about peasants, rural proletarians, or his Puerto Rico research. Your advice was: take him at face value, look at what he's doing and run with it. And understand how this connects with Sid's views on field research. Sid loved field research, had a great respect and admiration for it and a healthy distrust of theory.

DALE: That was my take, because I thought that in the mid-seventies virtually all anthropology took the theoretical turn or the cultural turn, and he and Eric Wolf took a historical turn. They were already historical, but just the emphasis...That, to me, is what gave their work so much more importance and utility. And the theoretical critiques I thought were just uninteresting...you couldn't do anything with it.

JUAN: Sid was preoccupied and sometimes indignant with all the anthropological theorizing that was going on in the eighties and nineties, when he was still teaching. He was still keeping up with the literature to some extent in the nineties and early 2000s. I remember him once saying, the only anthropological works that anybody will be reading from these years, fifty years from now, are hard-core ethnographies that really take seriously what they are looking at, and describe it.

DALE: There was a similar discussion in Brazil [in 2010] with Olivia da Cunha and some of her colleagues who had gone so thoroughly into the cultural turn that they couldn't define culture. And Olivia asked Sid, do you really have to do fieldwork to do anthropology or

does anthropology really need fieldwork. And he said, well, yes and no, you can do anthropology on the basis of theory, but somebody has to do fieldwork. And unfortunately, the anthropologists aren't doing it. The people who are doing it are geographers. Then he went on a kind of effusive praise of Judith Carney's book on rice and slavery in South Carolina. I liked the book's argument on the hydraulic system in some ways, but I find it also very problematic in others.¹⁴

XI BINGHAMTON NETWORKS

DALE: In Binghamton, I respected and worked within the world-system trajectory, but for Immanuel, I was never a real world-system guy and was always a little bit---as much as he depended on me for a lot of things—he never incorporated me and didn't know how to. One of my first-year students in the late seventies, said after the introductory world-systems course, “This is really funny, because what you say can contain everything Wallerstein says, and what Wallerstein says can't contain anything you're talking about.”¹⁵

JUAN: That was the kind of living contradiction there.

By grounding the analysis of slavery in the multiple temporal planes and spatial extensions of the world economy, it is possible to specify the history of particular slave formations in relation to one another and to the capitalist world economy as a whole – and therefore to account for difference as well as commonality and continuity in the history of slavery and capitalism” (pp. i-ii). On the question of context, see below. There are of course substantial overlaps, and possible tensions, between “successive approximations” and “context.”

¹⁴ Carney, 2001. On the Carolina Low Country's hydraulic system and its possible African origins, see Carney 2001, pp. 91 y 160. Not incidentally, Carney is a geographer.

¹⁵ On Dale's career in Binghamton, see the introduction to the revised edition of *Slavery in the Circuit of Sugar*, pp. 23. Dale dedicated the book “to the memory of Harvey Goldberg, who showed me the power of history as a way of understanding the world, and to Immanuel Wallerstein, who provided the intellectual and institutional space in which I could develop my thinking.”

DALE: It was always difficult to manage my relationship with Immanuel. But also (a) I really respected Immanuel, and (b) there was no point in having that kind of fight with him. I tried to have dialogue with him a lot. But he didn't care. He was just doing his thing, and if you didn't fit into his thing, he didn't bother. So, I came to the position that, you know, it's not worth the effort to try to reform him because he's not going to change. Think about him as a big bulldozer because he's clearing all this stuff behind, and then you can come behind the space he's cleared out and do things he can't do; there's a great space to work.¹⁶ That was important because the politics of the department kept me fighting on the side of Wallerstein and at the same time maintaining my own autonomy. Not getting caught up in conflicts, and thinking that Wallerstein and world-systems should be defended; and that the program Terry set up was to be defended. But also, I think given all the stuff you now know about my childhood, I wasn't made to be the disciple or whatever of anybody, you know? The world is a great puzzle for me and my own autonomy about figuring it out was everything.

JUAN: Well, you had a global view, of history, so you were closer to his outlook than most people. Most everybody else in the department was either into the US or into particular areas.

DALE: And even when I felt conceptually most estranged from him, the one thing that...Here's one for you. Wallerstein taught me to appreciate Braudel, and I wouldn't have without

¹⁶ **"It's important to talk about, because I'm the last survivor of the original group and there are people who write about it now, but they write about it from the outside.** But having said that, I was kind of inside and outside [...] I mean, I felt in a certain way constrained by the structure, but it was a totally open and creative place (Tomich, 2024: 306).

him. And that's kind of everything. Because of the social history thing I came out of was totally anti-Braudelian. And I came to Binghamton with anti-Braudelian prejudices. The other quote that's important for my convergence with world systems is what E. P. Thompson said that history is the discipline of context.¹⁷ And I thought, well, if I want to look at slaves? as workers, what makes them different, from English factory workers, I got to figure out the context. And that got me to the world system. So those two things converge from different sides of the coin. That became the world system for me. And then, through Immanuel, I began to read and still am studying seriously Braudel, who was quite different. [Dale was watching Braudel interviews on YouTube at the time.]

JUAN: Definitely, I did not like Braudel at all. Initially it seemed to be like kind of a frozen way of doing history...But I think one thing that that Immanuel was quite aware of was space. Geography. That was always an important part of his work, though he didn't do as much with it as he could have. And Braudel was very forceful on space.

DALE: But he only went so far with time.

¹⁷ **"The discipline of history is, above all, the discipline of context;** each fact can be given meaning only within an ensemble of other meanings; while sociology, let us say, may put many questions to historical material which historians had not thought of asking, it is most unlikely that any 'sociological concept' can be taken, raw, from 20th-century suburbia (or from Melanesia) to 17th-century England, since the concept itself must be modified and refined before it will be appropriate to the ensemble of 17th-century meanings. This should not require saying: but there are fashions around which require it. [...] Only when the evidence is studied within its whole historical context – the rules and expectations of inheritance, the role of influence and interest, the bring fruitful results." "Each new concept must be thrust back into the ensemble of meanings of a specific historical context once again, and many of the concepts - perhaps the majority - will crumble to mere dust of irrelevancy in the immersion. Perhaps the continual making and breaking of the integument is the best that we can do" (Thompson, 1971, p. 45, emphasis supplied; see Calhoun, 1994, pp. 223-243).

Perhaps all that making and breaking does, after all, make for interesting bridges between "the discipline of context" and the "circuitous effort" of successive approximation.

JUAN: What do you mean by that?

DALE: Immanuel's time is fairly mechanical; it's some notion of *longue durée* that's undefined: Kondratiev Waves. If you read it, the Kondratiev waves are (a) the defining condition of capitalism, but (b) they're there before there's capitalism, there's no account of the origins of them mechanically as explanations. As John Higginson said, Kondratiev waves are like believing in the Force. And Immanuel's' reading is like the Force. His waves explain but they're not explained... A lot of Immanuel's stuff in fact collapses into typologies, it comes partly from his formation as a sociologist.

JUAN: So how do you think that long waves can be reconceptualized?

DALE: I think they're a methodological tool. My article in that Braudel volume discusses Labrousse on the time cycles, agrarian cycles.¹⁸ Everything has its temporality. The important thing is to think about things in terms of temporalities rather than static states of being. And there are different temporalities, some of which are real and some of which are fictitious, like I find myself attributing temporalities to things and don't have them, so it's worth it to figure out what they are. But I think the idea of plural times is quite productive. There's also event time or duration time...

¹⁸ Tomich, 2012. "For Labrousse temporality is at once an instrument of research and an organizing principle of historical processes. It is an analytically powerful tool that enables him to reconstruct temporal movements and economic cycles and to identify ruptures, accelerations, and reversals." The close connection that Labrousse establishes between the conceptual and the real, however, creates tensions that Dale addresses in the article.

XII. EMANCIPATION IN THE CIRCUIT OF SUGAR

JUAN: What idea from your dissertation really changed when you did the book?

DALE: Half the concept left, because I stopped trying to do a total history of emancipation. But emancipation remained problem for the Martinique book. To write the history of emancipation, you almost need infinite time. In retrospect, the emancipation chapter of the book attempts a temporality that is different from the rest of the book.

So, in that chapter, the problem was that I tried to address emancipation as the outcome of the crisis I had described in the previous chapters. But there was a temporal shift in the process I was describing and that I did not make explicit. The real conclusion of the crisis of the plantation was not really at the time of emancipation but would come about decades later when the planters attempted to recapture the labor of the ex-slaves, who were making themselves into post-emancipation peasants as they tried to subordinate the sugar plantation to their own community and subsistence and livelihood.¹⁹

¹⁹ In the interview, Dale's thinking on the question of emancipation in *Slavery in the Circuit of Sugar* is compact and complex. Moreover, Dale's reflections connect his dissertation (1975), the first edition of *Slavery in the Circuit of Sugar* (1990), the concluding essay in *Through the Prism of Slavery* (1995), the new introduction and conclusion of *Circuit* (including the introduction's important footnotes), and two major articles in *Review* (2008, 2015a) among his later papers. So I should take a few lines to clarify my own thinking on this, and perhaps Dale's.

As I understand Dale's perspective, the complexity and temporality of the process of emancipation in Martinique went beyond the formal juridical freedom of the enslaved in 1848, and there was no "single cause of the crisis of the slave regime." (2016, p. 397). Over the past half-century, many historians have maintained (in the tradition of "history from below") that emancipation did have an overriding cause: the resistance of the enslaved and more broadly their **agency**, as a rebuttal to explanations centered on the declining profitability or morality of slavery.

But for Dale, the agency of the enslaved was not the whole story at all. He regarded agency as extremely important and in fact devoted a chapter of *Slavery in the Circuit of Sugar* (chapter 8) to a discussion of provision grounds and resistance, arguing that the activities of enslaved led to a crisis of the plantation. This is a crucial point that Dale would probably extend to post-"second slavery" societies in general.

"Given the prevalence of studies that emphasize the resistance and agency of subaltern groups, it is worth remembering that if we do not regard actors as formed through social relations and that these social relations provide the conditions, possibilities, and limits of action, **we risk treating agency as the attribute of the actors themselves rather than as the relation between actors and relations [...]** Actors are not first local and then become **global**" (Tomich, 2016, p. 421; my emphasis).

I wrote about this in *Through the Prism of Slavery*, but in my dissertation I got caught up in the “history from below” trap. My outlook was “history from below” but then I thought this should neatly lead directly to emancipation, it should make emancipation possible. To write about the history of emancipation, you needed a different spatial-temporal framework. Which would be really hard to put into that book unless I wrote a kind of French dissertation. Or would be a book in itself, because the temporalities are all different. It was a mistake to think that that’s where the book ended. The argument in the book ended, and it should have really ended with the chapter that I couldn’t write until after the book was published.

JUAN: So, what you’re saying is that you can’t really understand the substance of emancipation...what’s most important about emancipation...unless you look at what happened afterwards, after the formal decree?

DALE: No, what I’m saying is that the way I wrote it the slaves created the crisis by withdrawing their labor and appropriating garden plots, appropriating time and space and resisting and going on strike.

The conditions of existence of French metropolitan and colonial capital were in continuous flux, caught in the crosswinds of “the world sugar market, the world division of labor, the colonial state and French national sugar market, the material and technical conditions of sugar production, and the master-slave relation”. (2016, p. 397) In a word, they were “contingent on definite conjunctures of the wider world-economy.” That is, I would say, contingent on specific **contexts**.

Prior to formal emancipation in 1848, the enslaved in Martinique created the crisis through their garden plots and their covert and overt resistance. Yet the conditions of freedom were not settled even in the short term, as various degrees of freedom/unfreedom were attempted by the colonial authorities, from the imposition of vagrancy laws to forms of sharecropping to wage labor; and the latter was not viable short of a “restructuring of the colonial economy”. (p. 190)

Formal emancipation was the horizon in Dale’s dissertation, and even in the first edition of *Slavery in the Circuit of Sugar*; but after the book was published in 1990 Dale became fully convinced that the process had to be viewed in a more open-ended, and in an optic both short- and long-term. Dale’s reassessment was reflected in the last essay in *Prism* (1995) and in the revised edition of *Slavery in the Circuit of Sugar* (2016). The undoing of the plantation system (while a complex story that merits close attention) did not equal emancipation, an open-ended process subject to a swiftly evolving conjunctures in 1848 and years thereafter.

JUAN: So, the slaves created the crisis...

DALE: That was the background for the politics of emancipation, which are so screwy. Because first, there's a Republic in France. The slaves hear about that, and they have an uprising across the island and force the local authorities to abolish slavery. Then another boat comes and says that the Assembly in France had abolished slavery before it happened in the island. And then there's this complex struggle between the new Republican state, the colonialists, the reactionary interests, the planters, the slaves. It's really complicated, and it has its own temporality that's all in the short term. And you have to talk more about the state; you have to talk about the different political actors to get that right. And that was a different thing than what I had written about. Some of that was in the old thesis, but even that was sort of inadequate to really do the politics of emancipation. And then the real trick is, once they were emancipated, the slaves had no political choice but to elect Schoelcher as their representative because they didn't have a spokesman, and Schoelcher was really on their side in the way he could be on their side. So, there's all this complex interplay of interests in the short term, that you'd have to lay out and what the politics between the free people of color and the whites and the blacks. And it's complicated.

As Dale mentions in the interview, he addressed these issues in the revised 2016 edition. Yet the problem of the relations of the crisis of the plantation and emancipation was never quite entirely settled for him. "But, you know, I still feel I never quite got all that right." Moreover, "the conclusion ought to be the article in *Prism*" (see below) That's essentially what Dale says in the single footnote to the revised conclusion of *Circuit*: "I have discussed the initiatives of the emancipated population in Martinique to define and extend the gains that they had achieved while still enslaved after the abolition of slavery in 1848 and the efforts of the colonial state to contain their efforts in *Through the Prism of Slavery*, pp. 173–91." (2016: 421)

The 1995 article in *Prism* hewed closer to Dale's historical research and briefly discussed alternate forms of labor after emancipation. Indeed, at one point in the interview Dale remarks that material on the colonial state and political actors in his *dissertation* had become germane to his later approach. "Some of that was in the old thesis, but even that was sort of inadequate to really do the politics of emancipation."

Dale reworked this major problem throughout his career, constantly returning to it from new angles, refining his methodological approach, and relying on renewed theoretical reflection to articulate it. (see the footnotes to the Introduction, 2016). This process of continued elaboration was no less than the process of "successive approximations" that Dale proposed elsewhere in his writings. The organization of *Slavery in the Circuit of Sugar* followed this approach: "Each chapter successively moves out from the preceding ones to examine a particular aspect of the slave/sugar complex, itself partial and abstract, and incorporates it into the analysis by examining its interrelation, interdependence, and interaction with other relations and processes forming the world economic whole (2016: 40).

JUAN: So the slaves' agency is not the whole story at all.

DALE: No, exactly. But, you know, they had agency. They ended through a revolt... slavery. And I think it's fair to say there wouldn't have been the revolt if there hadn't been these struggles against the sugar regime... But the sugar regime labor politics don't explain the revolt and its consequences. The real

JUAN: They would have been left halfway. If the slaves hadn't revolted, they would have found ways of binding them to the land.

DALE: Yes. So rather than trying to explain everything, which was my temptation, especially with history from below and slave self- emancipation, the better ending would have been just to say that the slaves' initiative forced the local conditions of emancipation and the long-term question was what happened afterwards. Because it wasn't that some higher political or economic logic dictated emancipation, it was the slaves' resistance. How did they resist? Well, look at that chapter that ends *Prism*. They try to appropriate land, the houses, the gardens for themselves. And if not drop out of plantation labor, subordinate it to village life. So the struggle of post-emancipation politics is how do you recapture labor that has escaped and has destroyed slavery. I should have just said that emancipation concludes the temporality of this struggle against plantation production. Not get into the complexities; and that was hard to do. I had to get the book done to get

A related, broader insight that consolidated Dale's reinterpretation of emancipation in Martinique turned on the relationship between that island and the world system. This insight would be fundamental to Dale's conception of the second slavery and to his later work generally. It appears in an interview conducted by two of Dale's Brazilian colleagues, Leonardo Marques and Tâmis Parron. (Tomich 2019a, p.781; see also Tomich 2020, which excerpts this exact quote). Given the significance of Dale's remarks on this point, I also refer to the original text in Portuguese. "As I wrote the book on Martinique, the big break-through for me was that you could have the world-system as the unit of analysis and Martinique as the object or unit of observation. [*À medida que escrevia o livro sobre a Martinica, o momento em que realmente deslanchei foi quando percebi que poderia ter o sistema-mundo como a unidade de análise e a Martinica como o objeto ou unidade de observação.*] As I kept this in mind when I came up with the idea of the Second Slavery [*Enquanto mantinha isso em mente e desenvolvia a ideia de segunda escravidão*], I said to myself: it is really a question of specifying what the part is [*o que é a parte*]; and by showing how the processes creating Martinique are different from the processes creating Cuba you are also saying something about the character of the world-economy. Admitting [*Considerar*] the whole as universal and heterogeneous requires having a clear distinction between the unit of analysis and the unit of observation" (Tomich 2019a, p. 779).

tenure. I hadn't really worked on that yet. And also, you know, critical of myself. I thought with, you know, my whole history-from-below thing that emancipation ought to have been the end, and the end ought to be the political history of emancipation. And everything we just talked about leaves out the complexities of metropolitan politics around emancipation. So, it would have been a whole different book. And my mistake was I tried to make it the end. I only had time to write the other thing once the book was for the publisher. And then I saw years later, this was stupid, this should have been the end. But they had no conditions to do that. I think I tried to address that in the revised second edition. But, you know, I still feel I never quite got all that right.

JUAN: What did you revise in the second edition?

DALE: I tried to revise the conclusion. I haven't read it since I wrote it, but it was basically to say this: that I didn't get this right and that the conclusion ought to be the article in *Prism*.

JUAN: But then what you're saying is much the case also with Saint-Domingue. You always hear about the slave revolution in Saint-Domingue. They slaves didn't rebel until 1791, though the whole process had begun in 1789 in France and Oge, and the mulattoes who were very important, in Saint-Domingue and in the metropolis. Plus, the struggle between the whites that James addresses in large part. Do you think that was the approach that was necessary to do the full story on Martinique, or were there things in C.L.R. James' account of Saint-Domingue that...

DALE: But Martinique was a dying island at the time, hanging on to the subsidies because they can't produce and compete. There's all kinds of stuff going on. France wants a maritime presence somehow. The other thing I could have emphasized more is the whole impetus to reconstructing the sugar industry and slavery was to rebuild French maritime and commercial power. The real colonists in France were more interested in Algeria. The problem was you couldn't just give up Martinique and Guadeloupe, but what the hell are you going to do with them?

JUAN: Certainly, in the 1840s France was making a very active push for people to emigrate to Algeria, a lot of taking over land. Martinique wasn't the booming colony that Saint-Domingue had been.

DALE: Yes, and if you follow it over the long term, French colonialism just subsidized the rich white families of Martinique. All the sugar plantations by the 1870s became rum factories because they couldn't make sugar.

JUAN: In terms of methodology, perhaps what James did on Saint-Domingue could also be done on Martinique. The coordinates that James worked on were interesting, though he didn't do a whole lot with production. It was more a political history.

DALE: My problem [in *Slavery in the Circuit of Sugar*, first edition] was that I tried to squeeze the political emancipation into the story I had told, and that was just a mistake. Remember what I said, I wanted to do slaves as workers. And I did. See, that's where Sid was important because the proto-peasants, post-emancipation peasantry were really important ideas to see what was going on, to see the flexibility everything made. But that should have been it.²⁰

But again, for an academic audience, I didn't feel I could cite this off-beat Marxism particularly well. It just would have created more confusion. I never even talked about Marxism *per se*. If I had talked about the law of value, then the Martinique book would have been much simpler. But I felt I had to write around it, because as soon as you say those things, people's eyes start to spin. So, you know, I had no immense family fortune. I had to get the job or die because I never would've been able to get another job anywhere else.

²⁰ "The dissertation is kind of a linear political economic history of Martinique with a big emphasis on the plantation. And eventually, you know, it took me three or four drafts, rewriting the dissertation took me years" (Tomich, 2024, p. 342).

And the thing is how I really wrote the book in Brazil.²¹ You remember you took me to the airport to Brazil with all those bags of notes. And then I came back and in 1985 I had to give a talk, my first talk, at a World Systems conference in New Orleans [PEWS, Political Economy of the World System]. This is where I hung out with Sid, and Moreno [Fraginals] was there and I didn't do it.²² And then I thought of the idea of second slavery and wrote the paper in two weeks. Came up with something, and that was it. I mean, the second slavery just bangs out of the Martinique book. Somehow, when I had the second slavery idea, I wanted for a long time to write the second slavery book. Instead, I wound up more organizing networks of people interested in the idea of the second slavery... Anyhow, I'm having a hard time speaking, projecting my voice, but this is a really lovely and important conversation.²³

²¹ "Dale started writing the book in Brazil. I remember when he wrote the first paragraph. That was in '83. Then we were married and lived in Binghamton from '84 to '86, then moved to Ithaca. He had a first manuscript, and then he came up with the idea that the chapter on the plantation was the crucial one. (Chapter 5, "The Habitation Sucrière: Cell Unit of Colonial Production") We were living in Ithaca then. It must have been before '89. He rewrote the whole thing quickly, then sent it to Johns Hopkins and they accepted it." Personal communication, Luiza Franco Moreira, July 5, 2025.

²² Dale apparently did not present at the 1985 New Orleans PEWS conference, but a paper by Dale was included as part of the conference proceedings, titled "White Days, Black Days: The Working Day and the Crisis of Caribbean Slavery." Ninth Annual Session, Political Economy of the World System (1985). Dale had begun the book on Brazil, and Moreno Fraginals is everywhere in the text. It was during the process of writing *Circuit* and grappling with Moreno Fraginals' strongly technological account of the Cuban sugar industry that the concept of "second slavery" came to be. "Manuel Moreno Fraginals's *The Sugarmill* was a constant reference while writing *Slavery in the Circuit of Sugar*. It quickly became apparent to me that the combination of factors that inhibited the restructuring of sugar production and the reproduction of slave relations in Martinique did not operate in the same way or have the same consequences in Cuba. This is the origin of the concept that I have come to call 'the second slavery' (see Tomich, 2004, esp. pp. 56–71)." An abbreviated version of *The Sugarmill* was published in English 1976, but Dale used the three-volume original Cuban edition of *El ingenio* (1978).

²³ These last few lines are from the actual end of the ninth and final interview (June 14, the same afternoon as the eighth interview; hence Dale's reference to two sessions). In the interview, these lines closed the section on Sidney Mintz. In this edited version, it seemed fitting to close with the section on *Slavery in the Circuit of Sugar*.

JUAN: It's getting late, let's take a break.

DALE: Ok, well, this was good. So enjoying the talk that I ... We got really two good sessions in there, I think.

JUAN: Let's see how they come out.

POSTSCRIPT

When several of Dale's former students and colleagues decided to do a dossier on his work, my initial proposal was a "Dale's reading list" that would comprise the authors he recommended to his students, from C. L. R. James and E. P. Thompson to Korsch and Rosdolsky. Dale's response to my proposal was diffident, as he was about any recognition of his intellectual impact. His response did not improve when I proposed doing an interview or two, beginning with his early years in Milwaukee. Yet as Luiza tells me, Dale's response gradually became a more compliant "Well, Juan wants me to do these interviews." Dale sensed that this might be his last opportunity to talk on record at some length about his life and thought; and he was welcoming the dialogue.

In the interviews, I asked about aspects of Dale's life and intellectual formation that I knew little about and which intersected with mine. My college years in Philadelphia overlapped with Dale's in graduate school. Along the way, I did not find convincing frameworks for approaching the past and present of Puerto Rico and its relationship with the Caribbean; nor had I developed a self-reliant outlook on academia. I wound up in grad school in Binghamton in the late 1970s -- the heady first years of its Sociology Department and Braudel Center as a premier hotspot of historical theory. And, Dale was there after wanderings of his own, challenging disciplinary boundaries with an evolving methodology that reframed the history of a neighboring island even smaller than mine.

Phillip McMichael, who is Professor Emeritus of Global Development at Cornell, described his and Dale's early years in Binghamton:

"During my last year in '76-77 in residence as a grad student, Dale and I spent all our spare time reading Grundrisse and Capital together -- essentially interested in the methodological possibilities we could glean. It was an extremely formative period and laid the foundations for a long term back and forth relationship where Dale and I exchanged drafts of things we were writing -- right up to last year before he died. It's interesting that my work on food regimes evolved along the lines of viewing (and working with) the international peasant movement from the 1990s on as global actors/agents, much like Dale viewed slaves as global actors."

Enrico dal Lago published an excellent analysis of Dale's work in *New Left Review* shortly after Dale's passing (Dal Lago, 2025).²⁴ In a personal communication, Dal Lago noted the relevance of Dale's intellectual formation to his later work.

"It's particularly fascinating to see how Dale's intellectual trajectory is a prime example of E.P. Thompson's 'history is the discipline of context.' The context of

the sixties and seventies in which Dale moved comes out alive and very powerful in the larger-than-life personalities of legendary scholars with whom he crossed path, or collaborated with, at different points in time, while studying and at the same time being involved, as most in the left were back then, in addressing important issues of social justice through different forms of activism.

“The interview is not only a wonderful way of remembering the great scholar and great person that Dale was, but is also a magnificent window into a largely disappeared, but once extraordinarily vibrant, world, one in which scholarship and active engagement went hand in hand, and where the debates on the interpretation of the past had a major influence on the interpretation of the present.” (Personal communication, August 22, 2025).

Reinaldo Funes Monzote collaborated with Dale in the *Landscapes of Slavery* project. He wrote on the experience:

²⁴ We were both skeptical of Wallerstein’s world-systems analysis, which is why I eventually published my critique in the 1990 incorporated comparison article (even so Immanuel, who was editing an issue of the *International Social Science in 1992*, invited me to contribute a restatement of my method – a generous gesture). And following Wallerstein’s signal intervention Dale and I spent a lot of time figuring out and publishing pieces on the rise of historical capitalism, and the formation of the state system. (See McMichael 1990, 1992, 2000; Personal communication, August 14, 2025).

“Like many Cubans who have researched the world of sugar in the 19th century, with its far-reaching ramifications, the closest point of reference is usually the other Antilles as a precedent. However, placing the rise of the slave-based sugar plantation in Cuba in the first half of the 19th century alongside the coffee boom in Brazil and the cotton boom in the southern United States is fundamental to understanding Cuban specificity within the Caribbean context itself and its early connections with the Industrial Revolution. [...] “Although four co-authors appear in *The Landscapes of Slavery*, there should be no doubt that Dale undertook most of the work and conception of the book. However, for Dale the most important thing was that it be a team effort, and he maintained this throughout. In so doing, Dale reaffirmed what we perceived in his character from the beginning: his generosity and his collaborative spirit, without any hierarchical pretension given the material differences between our respective academic backgrounds.” (Personal communication, 13 October 2024)

Andrej Grubačić, Professor of the Anthropology and Social Change at the California Institute of Integral Studies and past editor of the JWSR was Dale’s colleague at the Braudel Center and in the Sociology Department at Binghamton. Andrej had the opportunity to express his appreciation in a 2020 email to Dale:

I think of my work as theoretical history: a specific combination of world-systems analysis, Hegelian Marxism, and anarchist anthropology. Needless to say, with the exception of anarchist anthropology, I learned how to develop my thinking about this relationship from you. So it becomes a conversation between Marx, Braudel, Wallerstein, and Kropotkin. Through the Prism of Dale. As I told our other cuz, everything I know about world-systems, or more accurately, about Wallerstein, Marx and Braudel, came from you. But in an unusual way. I don't think I ever told you how important to me this unusual way is, and how grateful I am to you. When I arrived to Binghamton, I was ready to give up on both Braudel (even though I was schooled in Braudelian structuralism) and on Marx (despite my involvement with the remnants of the Praxis group). And then, on top of this, I had to face what to me appeared to be a closed system: world of structures, world without struggles, world of fixed categories, without air to breathe. I was desperate. I had to look elsewhere. To the world of (premature) agency. I went to *Many Headed Hydras*, to *Poverty of Theory*, to *History from Below*. And throughout all this, you were there for me, never telling me what to do. You would listen patiently to what I had to say and ask, and you would push me to examine this line of thinking, even when you were in disagreement with it (I did not know it at the time...).

In a certain sense, I had to learn how to become an intellectual both because and in spite of you. And that is the single most valuable gift of my graduate studies. One day you gave me Kosik--whom we read in Praxis, as well as Korsh-- and then Sayer and Sohn Rehtel. And I went to the Prism and re-read it. The chapters on Martinique were crucial: world economy, provisional grounds, expropriation of time and space, and proto-peasantry. And then I went to Braudel and re-read it. And then I went back to Wallerstein. And the world (system) exploded. All of sudden, the fixed categories dissolved. Not only of Immanuel's world-systems, but also my own. I was able to re-relate to Marxism, free of violent abstractions. I was able to see gift and mutual aid as components and relations within an open and concrete totality, to distinguish between objects and units, between analysis and observation, between units and the whole, between theory and history. I have rediscovered history, Marxism, and world-systems. Anxious search for periphery and semiperiphery--which one is it, I have to find out!-- were not my navigation tools. The interesting thing to me, in retrospect, is that you have never taught me this. You made me curious. There is so much difference between the two. What I learned from this Brazilian interview (published in English, by the way), was that this was not an accident, but a careful pedagogical gesture. Thank you.

Dale's reply to Andrej was brief, affecting, and just Dale:

“Dear Andrej,
I am touched, taken aback, and a little self-conscious about this eloquent and moving statement. It means a lot to me, especially coming from you. All I can really say is that this is the sort of thing that we almost never say. But then when it is too late, wish that we had. Maybe we ought to say them more often, both for ourselves and others.”

Dale's students likewise appreciated his intellect, his generosity and especially how he established a context where his students could reach their own conclusions while gaining a shared historical sense of theory. Kolya Abramsky, a former PhD student of Dale's, wrote:

"I increasingly realized Dale actually was the key bridge between the two schools of thought that I went to Binghamton determined to connect – World-Systems Analysis and Autonomist Marxism (schools of thought which to many people seemed totally different from one another). Dale, by his rejecting the rigidity of subscribing to formally labelled schools of thought, and his insistence on a rigorous materialist analysis grounded in the study of concrete social relations in concrete geographical locations at concrete moments in historical time, was the perfect bridge. Dale connected me to many fascinating ideas, authors, and texts, that I was unlikely to have found my own way to, and whom no one else was pointing me towards either. [...] One field where Dale really got through to me was in helping me to understand dialectics and the relation between form and essence. [...] He helped me to understand what it means when something abstract is 'in motion' and to understand how an essence continues to exist over time while shedding one form and adopting another."²⁵

As recounted in the interviews, Dale's trust in his own intellectual abilities stemmed from an upbringing where he had often felt rather out of place and where he honed his powers of observation. Deindustrializing Milwaukee encapsulated large-scale change on the march, with ideas of race and class fast changing on the way. In Wisconsin, Dale's wariness about student activism stemmed from that background and from his experience with radicals who could afford to get in trouble. His skepticism about academia was profound but was always countered by conviction about the possibilities of the university, especially the public university. All these dimensions connected with questions of my own, and Dale always helped to make them more explicit and thought-out. Never by straightforward and final answers, always by "successive approximations," with close attention to theory as well as to the perils of false abstraction.

Dale's reading list, thought-provoking as it is, could not top that.

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Giusti-Cordero was a student of Dale Tomich at SUNY-Binghamton during early, defining years of Binghamton Sociology. Tomich was his dissertation chair and mentor, and they remained close friends through the years.

Disclosure Statement: Any conflicts of interest are reported in the acknowledgments section of the article's text. Otherwise, authors have indicated that they have no conflict of interests upon submission of the article to the journal.

²⁵ "Some Memories and Reflections about Dale the Connector, Dale the Bridge, and Dale the Dialectician."
Unpublished text, August 2025.

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Resisting Capitalist Reproduction in the Liminal State

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Abstract

World-systems theory is known for innovative approaches to understanding resistance to forms of oppression, especially as it pertains to anti-capitalist and environmental social movements. This article invites world-systems theorists to rethink resistance by recognizing that the modern world-system is in a soft collapse driven liminal state of transition to a new world-system. The provocation challenges conventional world-system understandings of resistance by inquiring if capitalism perishes or reproduces in the liminal state. The article finds the latter to be valid due to profit-making potential of resolving the perfect storm of crises. It argues capitalist reproduction is anchored within the 2030 Agenda, which is a plan generated by technocrats for weathering the perfect storm of crises. The article argues the 2030 Agenda serves as capitalism's accumulation mechanism through the liminal state transition. The agenda, however, calls for decarbonization, which requires a drastic increase in resource extraction that portends the end of capitalism through ecocide. To realize a just transition, this article advocates for the pluriverse proposition as a key to liminal state resistance, a position that places strategic primacy on defending other knowledges against the monoculture of the 2030 Agenda. The article proposes leveraging the instability, disruption, and confusion of the liminal state to undermine the legitimacy of technocratic elites through counter power campaigns informed by assemblage theory and classical counter-insurgency strategy. The article contributes to world-system theory by bringing the liminal state concept into our understandings of the future world-system.

Keywords: Capitalism, Liminal State, Resistance, Soft Collapse, 2030 Agenda, Extractivism



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In the thirty-year update to *Limits to Growth* published in 2004, Meadows, Randers, and Meadows warned the opportunity for averting a collapse of the planetary system was rapidly closing. Twenty years later, an abundance of indicators supports the conclusion that the formula of planetary limits, growth and delays has driven the modern world-system into a soft collapse (Kuecker 2020). Echoing the *Limits to Growth* warning, over 11,000 scientists led by Ripple (2025) have warned humanity that only a rapid paradigm shift will prevent a hard collapse. In 2023, another group of experts led by Richardson put humanity on notice that our way of life had pushed the world-system past six of nine planetary boundaries. Also in 2023, Ceballos used the “tree of life” metaphor, in which humanity is hacking off tree limbs, to explain the current reality of mass extinction. While working for KPMG, one of the big four accountancy firms, Herrington (2021) tested the validity of the 1972 *Limits to Growth* study. She found the business-as-usual model valid, while arguing the avoidance of collapse would require a massive culture shift—a departure from consumer culture—and a massive technological game changer. The World Economic Forum’s 2025 *Global Risks Report* surveyed 900 experts who expressed negative future outlooks and a “skepticism that current societal mechanisms and governing institutions are capable of navigating and mending the fragility generated by the risks we face today.” Numerous UN agencies have addressed elements of the collapse in their reports. The Intergovernmental Panel on Climate Change Sixth Assessment 2023 Synthesis Report, for example, finds “Climate change is a threat to human well-being and planetary health (very high confidence). There is a rapidly closing window of opportunity to secure a livable and sustainable future for all (very high confidence)” (The Intergovernmental Panel on Climate Change 2023,23).

Despite such indicators, the community of world-system theory scholars hesitate in positioning analysis within the context of an already existing collapse. Chase-Dunn and Almeida (2020), for example, reference my 2007 “perfect storm” proposition, which asserted crises had started the collapse of the modern world-system. Chase-Dunn and Almeida (2020:103), however, conditionally consider the possibility of collapse, “The perfect storm that might provide an opening for transformational global social change... may have arrived with the global COVID-19 pandemic.” Errantly viewing the status of the current world-system as a continuation of the modern system has significant implications for world-systems theory thinking about resistance movements and the prospects of social justice in the twenty-first century.

This article considers the question of resistance to capitalism during the current collapse driven transition from the modern world-system to a new, yet to be known world-system. To approach the question of resistance, it is necessary to consider the extent capitalism reproduces itself through the transition, and to what extent the collapse of the modern world-system is capitalism’s end. In answering these questions, the paper advances a seven-point argument. First, the modern world-system is currently in a state of soft collapse that leads to a transition to a new,

yet to be defined world-system. This transition is called the “liminal state” (Kuecker 2020). Second, in response to the collapse, a complex of technocratic elites commanding central positions within the accumulation mechanism of capitalist reproduction generated a plan for enduring the onslaught of systemic crises. The plan is called the “2030 Agenda.” This accumulation mechanism drives the energy transition to the maladaptation of decarbonization through electrification rather than degrowth, which assures the reproduction of capital at the cost of the extractivist ecosystem destruction anticipated by ecosocialists such as Kovel (2007), Moore (2015), as well as ecocommunist like Saito (2022, 2024). Third, the power/knowledge of the 2030 Agenda’s epistemic-technocratic rationality is made unstable by the soft collapse, which causes epistemic panic (Kuecker 2023) among its actors and makes the 2030 Agenda precariously vulnerable to resistance. Fourth, resistance to capitalism in the liminal state needs to target the 2030 Agenda’s function as one of capitalism’s accumulation mechanisms. Fifth, processes of emergence define the behavior of the world-system in the liminal state, where system potential for liberation from the oppressions of the modern world-system become viable paths in the formation of the new world-system. Sixth, the diversity of social movements, everyday resistances, and other knowledges constitute a pluriverse of resistance that can lead to the formation of a new world-system. And seventh, advocacy for the pluriverse merits resistance to the 2030 Agenda.

The Liminal State

A central premise in ecosocialist thinking maintains capitalism’s infinite need for growth causes an accumulation mechanism incompatible with the finite boundaries of the planetary ecosystem. Kovel’s (2007) *The Enemy of Nature* bluntly asserts humanity faces the “end of capitalism or the end of the world,” while Moore (2013:13) maintains nature no longer yields its bounty “on the cheap,” an accounting that suggests capitalism’s periodic accumulation crisis is at a point “more epochal: the breakdown of the strategies and relations that have sustained capital accumulation over the past five centuries.” While it does not name capitalism, we can reference the 1972 *Limits to Growth* study to see how scholars have recognized “business as usual” is driving the modern world-system to an early twenty-first century collapse. Tooze’s “polycrisis” has become part of the global elite’s discursive framing of the state of the world, especially at events like the World Economic Forum (Kuecker 2023). For capitalists and liberal internationalists, system precarity is an omnipresent order of the day.

In 2007, I proposed the modern world-system had entered a state of collapse that is uneven in space and time, where geographies of the periphery enter first, followed by the semi-periphery, while the core persists with the modern world-system but in an unsustainable state of extreme overshoot. E. P. Thompson’s (1965) “great arch” metaphor is useful for seeing the collapse

argument. Thompson maintained the bourgeois revolution in England was not one event that made it clear to all a transition had happened. Rather, he saw it as a decades-long process of change, in which events happened like the smaller stones in an arch. The first stones set may not make it clear to the observer or participant that a revolution is in play. The arch does have a keystone that holds the structure together and which all the other stones lead into and out of in forming the arch. Collapse can operate in a similar fashion, with the early phases barely noticeable, while the fog of transition that sets in can make the collapse hard to see or see correctly. It may not be until the end of these processes that the events constituting the collapse are recognized as such.

Adding to the discernment challenge is the kind of collapse one is experiencing. In 2020, I updated the argument in response to the COVID-19 pandemic. I argued the pandemic induced clarity about the kind of collapse we were in, which I maintain is a soft collapse where the move to disordered simplicity is staged over time, often decades. With the pandemic-driven soft collapse all the geographies entered the collapse, although unevenness in space and time persists. Regardless of the path outcome, the soft collapse also positions the global system in a liminal state of transition between the modern world-system and a new world-system. Gramsci called such transitions an “interregnum” when “morbid symptoms appear” (Gramsci 1971, 275 and Hobson 2025). Looking at historical world-systems, Chew (2007) views such transitions as “dark ages” when systems experience repeated crises driven by ecological stress and human responses. Such moments are transitional processes that impact the long duration of societal evolution. Liminal states are disruptive, unstable, and confusing in ontology, epistemology, and phenomenology. Blinders to the reality of the liminal state exacerbate the confusion, and in the current liminal state, the persistence of modernity, especially its legacies of “development” and post-colonialism, make liberation from modernity problematic if not an impossibility without a significant collapse. The persistence of modernity in the liminal state is an anachronism, so much so its narrative falters as regimes of truth that anchor human experience with common sense stories about the meaning of everyday life (Hartley and Kuecker 2022).

Houdini versus the Gravedigger

World-system theorists such as Robinson (2004) build from Marxist theory in illustrating how capitalism reproduces itself by resolving the crises caused by its contradictions. Each successive crisis drives capitalism to its newest iteration in ways that generate ever deepening crises. Presumably the crisis will outmatch capitalism’s innovative capacity for Houdini escapes from the demise. Ecosocialists maintain capitalism’s gravedigger comes in the form of ecocide rather than the factory worker. In the liminal state evidence indicates the Houdini of capitalist reproduction persists through the profit-making opportunities of “sustainable development.” We can turn to the post-2015 world that the technocratic elite concocted to avoid a catastrophic ecological crisis to

illustrate the point. The post-2015 world is a term used to define the convergence of United Nations agencies' agenda renewal processes as they address the increasing scope, scale, intensity, and speed of global crises. Also known as the 2030 Agenda, the renewed agency agendas included: UNDRR's transition from the Hyogo Framework to the Sendai Framework in March 2015, the transition from the Millennium Development Goals (MDGs) to the Sustainable Development Goals (SDGs) in September 2015, the December 2015 Paris Climate Agreement, and UN Habitat's launch of Habitat III, also known as the "New Urban Agenda," in October 2016. Taken together they reproduce the power/knowledge of experts that maintains the hegemony of the modern world-system's liberal internationalism where technocratic rationality sustains capitalist accumulation by promoting development, managing mounting systemic risks, and creating vast market opportunities for the secondary circuit of capital to invest surplus capital (Harvey 1978). Given the great, if not unprecedented crisis of systemic collapse, capital seizes the opportunity for its reproduction through the profit-making markets generated by the 2030 Agenda (Hartley and Kuecker 2021, 2022).

Writing in 1956, C. Wright Mills examined the power of elites in the United States, those "whose positions enable them to transcend the ordinary environments of ordinary men and women; they are in positions to make decisions having major consequences." Mills continues,

For they are in command of the major hierarchies and organizations of modern society. They rule the big corporations. They run the machinery of state and claim its prerogatives. They direct the military establishment. They occupy strategic command posts of the social structure, in which are now centered the effective means of power and the wealth and celebrity which they enjoy (Mills 1956).

In *Giants: The Global Power Elite*, Phillips (2018) brings focus to an even narrower cohort, the transnational elites whose control of global finance and vast wealth transcend the power of nation-states. Along with Mills and Phillips' elites, there is another set who are less visible and less wealthy, yet they are positioned within the global relations of power in a way that results in their having significant influence over the outcomes of the twenty-first century. These elites are the technocrats whose high level of training and specialized knowledge earn their legitimacy as experts, especially those working in the public policy complex of institutions, organizations, states, and corporations that created the 2030 Agenda. This complex gains its position of power by serving as an infrastructure, what Easterling (2014) calls "extrastatecraft," for capitalism's accumulation mechanism.

With two-thirds of the modern world-system's population inhabiting cities by 2050, it is apparent that the outcome of the liminal state rests on what happens with the process of urbanization. That outcome may depend on UN Habitat and Habitat III's New Urban Agenda,

which sets out the plan for humanity's urbanization until 2036. Launched in 2016, it is a twenty-year agenda (Caprotti et al 2017; Kuecker 2015a; Parnell 2016; Revi 2016; Satterthwaite 2016). We can understand the significance of the New Urban Agenda for capitalist reproduction by turning to Lefebvre's 1970 thesis that the modern world-system had been totally urbanized. He anticipated the ways neoliberalism would drive globalization while centering that process in the "implosion/explosion" of the urban form where the reproduction of capital was defined by the logics of urbanization (Lefebvre 1996 [1968]; Shields 1999; Elden 2004; Marcuse 2009; Stanek, Schmid and Moravánszky 2014; Brenner 2017). Significantly, Lefebvre anticipated "planetary urbanization" would lead to the "critical zone," the moment of capitalism's gravedigging, through the revolutionary potential of the urban form, what he called the "right to the city" (Purcell 2002, 2003; Harvey 2012; Merrifield 2005, 2014). Radical political ecology converged with planetary urbanization to constitute a school of thought about the planetary crises that anchors capitalism's metabolic rift within the urban question (Arboleda 2015, 2019; Brenner and Ghosh 2025). The 2030 Agenda sits precariously on the pinhead of the New Urban Agenda's capacity to avert capitalism's ecocide gravedigging while making profits.

At the launch of Habitat III in Quito, Ecuador, in October 2016, participants quickly discerned the New Urban Agenda was a mile wide with aspiration and hardly an inch deep with practical implementation. Facing the obvious failure, the technocrats who ginned up the plan, reverted to one of their favorite strategies—can-kicking—as they announced the path to implementation would be undertaken at World Urban Forum IX (WUF9), two years forward, in Kuala Lumpur. At WUF 9 in 2019, it became apparent that implementation centered on smart cities (Hartley and Kuecker 2020), as the promise of data-driven metabolic efficiencies jived nicely with the positivist fallacies of technocratic rationality: if only we had enough data to finally quantify the qualitative then humans—or their machines—could finally control the universe and resolve humanity's problems. Smart cities not only offered the implementation "silver bullet" for realizing the 2030 Agenda, but they also provided vast profit-making opportunities for capitalists, especially for information technology that was on the leading edge of early twenty-first century circuits of capital. Cisco, for example, played a lead role in the development of a smart city from scratch, South Korea's New Songdo City (Kuecker 2013, 2015b, and 2015c). The company knew that to survive as an internet "plumber" it needed to transcend its dominance in routers by capturing the emerging "internet of things." Planetary urbanization offered an expansive market for Cisco through smart urbanism. Alphabet also understood the potential when it formed Sidewalk Labs to build smart cities. China's urban boom embraced the smart city model, while experimental cities like Abu Dhabi's Masdar City (Caprotti 2015), as well as India's fantastical quest to build 100 smart cities (Kuecker, Stamets and Sarkulov 2020) represent how smart cities became the urban norm within the 2030 Agenda (Hartley and Kuecker 2020).

During the 2016 World Urban Forum in Quito, a presenter at a panel about the launching of Habitat III held up a router and boldly declared the twenty-first century infrastructure of the modern world-system would require a massive increase in the extractive industry. During the week's events, her presentation was the only voice from the official program that raised the core issue of the modern world-system's unsustainable planetary urbanization. The prescience of the presenter with the router shows us that the capitalist accumulation mechanism feeding off the planetary crisis drives us to a deepening of the catastrophe. The gravedigging of sustainable development is a deliberate choice made by humans as options are present.

The other path not chosen is degrowth. While many advocates of the idea offer many iterations of the concept, we can find common ground in its premises (D'Alisa, Demaria and Kallis 2015; Heinberg and Fridley 2018; Kallis 2020; Kallis et al 2018; Hickel 2020; Jackson 2009; Saito 2022, 2024). First, it holds that the best path forward in the planetary crisis is to scale back the complexity of the modern world-system by slowing the growth of its economy. Degrowth is a dematerialization of the economy, which reduces the ecological footprint by decreasing the volume of materials extracted to meet the demand of consumption. Degrowth is an anti-capitalist proposition as it defies the necessity of infinite growth while also challenging humans to break from the culture of mass consumption. Along with less environmental resources exploited for human consumption, degrowth promises to reduce our carbon footprint by lessening the extent of energy needed for production. A range of economic models fall within the degrowth umbrella, including the circular economy, permaculture, or indigenous models like the Andean region's *Sumak Kawsay* (Altmann 2017). Some might include "natural capitalism," in the mix, because it brings into the capitalist balance sheet the costs and benefits of ecosystem services (Hawken, Lovins, and Lovins 1999). This accounting presumably permits the correct functioning of capitalist markets that bring perfect outcomes through practices like "impact accounting" that aim to eliminate ecological cost externalization from corporate bookkeeping (Giampietro, Mayumi, and Sorman 2012; Makower 2021; King and Pucker 2025). Others object to putting ecological lipstick on the capitalist pig and maintain the natural capital accounting trick does not change the core contradiction between infinite expansion and finite host.

Advocates of degrowth fell into a rigorous debate with advocates of decarbonization (Grubler et al 2018; Heinberg and Fridley 2018). Consistent with the oxymoron, "sustainable development," and consequently favored by the technocratic elite locked into the mentality of the 2030 Agenda, decarbonization holds out the promise of a painless energy transition that resolves the climate change predicament while remaining loyal to capitalism's infinite growth. To win the 2030 Agenda future, electrification was the key, which would be fueled not with cursed hydrocarbons but rather the promise of renewable energy: wind, solar, and hydro. Decarbonization, however, has at least two limitations. First, renewable energy is a very poor substitute for the phenomenal

energy return on investment (EROI) provided by hydrocarbons. With returns pushing 30:1, hydrocarbons have done historically unprecedented work—in the thermodynamic meaning—for humanity. Without hydrocarbons the modern world-system’s complexity is impossible. We are, as Yergin (1991) explained, a hydrocarbon civilization. While wind, solar, and water can produce electricity at sufficient scale and price, they are poor substitutes for sustaining the modern world-system. Likewise, the work hydrocarbons do for the modern world-system extends beyond fuel for its industrial plant. It includes the industrial food system that feeds eight billion people, as well as the petrochemicals essential to almost the entirety of our manufactured products. Decarbonize and the modern world-system will need to find another way to feed eight billion mouths growing to ten billion. Second, decarbonization’s electrification will result in a radical increase in the demand for mineral resources, which will require a dramatic growth in the mining sector and its devastating ecological footprint (Glusing et al 2021; McKinsey 2022). Rio Tinto Zinc’s profits will be made, deserts will replace the forest carbon sinks, displaced peasants will be left to migrate to the cities in the positive feedback loop of the modern world-system’s planetary urbanization, and tribal peoples will undergo the final act of culturecide.

Ranked at number 146 in the Fortune 500, Cummins Inc. offers a case study for considering the place of decarbonization within capitalist reproduction during the liminal state. Cummins Inc. employs 73,000 people within its global operations and markets. The company has a strong reputation as the industry leader in the manufacture of large engines used to power industrial plants and transportation systems. It is an important enterprise to consider because its product sits at the point of convergence between energy and production, which makes it a key infrastructure for the modern world-system’s decarbonized energy transition. Cummins Inc. also has an industry leading reputation for meeting environmental, social, and governance (ESG) goals. The company recognized its product faced market extinction with the end of hydrocarbons, which led it to a radical transformation in its product: a switch from diesel-powered engines to electric motors. In March 2023, Cummins Inc. launched its energy transition through its Accelera program for a zero emissions future, which involved a \$1.5 billion investment into research, development, and acquisitions. Cummins Inc. executive, Amy Davis, states that the “purpose of Accelera is simple—to secure a sustainable future for the industries that keep the world running” (Cummins Inc. 2023a, 2023b).

Evaluating the reproduction of capital within Cummins Inc.’s energy transition highlights four essential points. First, the infrastructural shift involved with decarbonization is an important accumulation mechanism for capitalism’s reproduction in the liminal state. Second, the company’s Accelera venture makes renewable energy infrastructure, science, and technology highly visible within the ESG market mechanisms, which also renders extractivism invisible within the same mechanisms. The accumulation mechanism persists with the same critical flaw: the ecosystem is

not factored into capitalist reproduction. Third, the remarkable transformation in the company's core function confronts the tyranny of time, where the fundamental issue of how fast capitalist markets can create the depth of economic, social, and cultural transformation as prognosticated by Herrington (2021) is pressing. The target date for Cummins Inc.'s zero-emissions commitment is 2050, which effectively kicks the can down the road. Finally, the Cummins Inc.'s case study suggests the Tainter Curve's (1988) additional tyranny of time, where each new wave of innovation causes two exponential processes to happen: the duration of the wave is shortened, and the extent of change becomes deeper and more intense. As Homer-Dixon (2000), Hallett (2013) and West (2016) illustrate, the modern world-system faces the predicament where the time available for making ever more profound innovations reduces to a nanosecond zero point. The market driven accumulation mechanism simply cannot innovate fast enough, and, even if it could, the scale of change would surpass the human capacity for adaptation. The Tainter Curve's "arrow of time" indicates that while Cummins Inc.'s energy transition accumulates capital it fails as the Houdini escape from capitalism's ecocide.

Revolutionary Imaginary in the Liminal State

When Prime Minister Thatcher justified the modern world-system's age of neoliberal globalization with her assertion that there "is no alternative" to dismantling the Keynesian iteration of capitalism, the revolutionary imaginary—what would be a world without capitalism—reached its nadir. Global village idiots (Kuecker 2018) like *New York Times* columnist Thomas Friedman (2000) pitched the triumph of liberalism that confirmed the death of revolution and the end of history. As Fisher's (2009) *Capitalist Realism: Is There no Alternative* invited us to understand, capital's hegemony wrought a post-political world that reduced contestation to the narrow band of what is possible within capitalist accumulation: we get a world constituted by Friedman and Van Hayek or Keynes. Fisher, along with many others, points to the victory of Thatcher's TINA principle as the demise of anti-capitalist politics as articulated by Antonio Gramsci, at least paraphrased by Jameson (2003) and Žižek (2010): "it is easier to imagine an end to the world than an end to capitalism." In 1994 the Zapatistas slapped down Thatcher and showed revolution remained possible (Kuecker 2004). A surge in social movements and the "multitude" (Negri and Hardt 2009) restarted history, only to be dispatched by the neutralizing force of reactionary politics spawned by September 11, the 2008 financial crisis, and the global pandemic. History continued, but with the added element of the politics of resentment and our current toxic stew of authoritarianism and emergent fascism.

In the liminal state humanity appears to be capable of imagining many end narratives: the end of capital, the end of nature, the end of modernity, the end of liberty, the end of democracy, the end of progress. The liminal state is a time when previous iterations of hegemony—the "truths"

that were once considered “self-evident”—are destabilized by the collapsing system’s rupture of the structures of everyday life. Contestation between multiple narratives suggests the liminal state is a time when Gramscian historical blocks can articulate (Jackson 2014) in the formation of something new. The restarting of history is the process of articulation suggested by Jackson’s (2014) “Rethinking Repair,” which is when something broken is reconstituted in a new fit, an articulation where the world becomes smooth once again. In the age of liminal state monsters and morbidities, it is too early to tell which narrative or combination of narratives emerge to do the work of articulation.

The articulation work of the liminal state revolutionary imaginary can match processes of system emergence with prefigurative politics premised on the anarchist, autonomous, ground-up approaches to praxis, where the revolutionary imaginary is prefigured by everyday practice. This prefigurative politics resonates with Holloway’s (2002) notion of changing the world without taking power where the revolution happens by transforming the relations of power from the vertical to the horizontal through action rather than seizing state power to use the state apparatus to implement the radical transformation of society, politics, economics, and culture. Prefiguration also finds expression within the “right to the city” concept, where the urban inhabitants’ right to transform and be transformed by the city (Harvey 2012) is actualized through participation and expropriation (Purcell 2002), which Peter Marcuse (2009) articulates as the process of exposing, deposing, opposing, proposing, and politicizing (also see Carroll 2016).

Prefigurative politics enables radical change in the liminal state in at least three ways. Its intentionality offers a strident barrier to the continuation of the oppressive elements of the modern world-system’s structures and practices. The barrier needs to leverage the liminal state’s disruptions and instabilities by identifying the weakest elements in the mechanisms of reproduction, and with capitalism, that means the accumulation mechanism, which is under stress from onslaught of a perfect storm of modern world-systemcrises, such as climate change. Second, prefigurative politics can target key structures as they become disrupted and destabilized by collapse. Leveraging, however, requires organized capacities for multifront but unified action, such as that advocated by Chase-Dunn and Almeida (2020) in *Global Struggles and Social Change*. Thirdly, prefigurative politics needs a forward-thinking proposal for what the new world-system ought to be. The prefigurative politics presented by Santos’ (2023) and Escobar’s (2018) pluriverse agenda represents one such proposal in the liminal state.

Resistances Within The Crises

While Chase-Dunn and Almeida (2020) see the climate justice movement as a force for radical change, a case can be made that climate change only had the potential to transform the environmental movement to a reformist focus on decarbonized sustainability rather than the anti-

systemic degrowth proposition that challenges capitalism's accumulation mechanisms such as the 2030 Agenda. As Klein's (2014) *This Changes Everything: Capitalism vs. The Climate* illustrates, climate change presents the single most significant threat to capitalist reproduction, because it makes possible an anti-capitalist imaginary as being necessary for the survival of our species. Environmentalists in the United States, like Bill McKibben, led protest movements such as 350.org that mobilized progressives toward demanding political action. More radical forms of direct action, such as the United Kingdom's Extinction Rebellion, which embraces non-violent protest to demand policy change, as well as those advocated by Malm in *How to Blow Up a Pipeline* (2021). Climate change movements, however, failed to become revolutionary, as humanity has locked into the reproduction of capital by selecting the path of decarbonization over degrowth. When capital confronted climate, contrary to Klein's thesis, capital appears to have won.

As capitalism reproduces itself through the profit-making opportunities of the perfect storm's crises, it continues its relentless path of killing the host. Anti-capitalist, ecological analysis makes it clear that resistance to capital in the liminal state needs to focus on how the perfect storm constitutes an important accumulation opportunity for twenty-first century capitalist profit-making. The identified accumulation mechanism then serves as a significant target for resistance, for what anti-capitalists might say "no" to through thought, word, and deed. Among many priority targets for resistance is the extractive industry, especially the three key industries that are actively collapsing the planetary ecosystem: mining, fishing, and forestry. What are the tactics? One can argue direct action, such as preventing extractive infrastructure from being built with roadblocks, violence against property such as burning down buildings necessary for local management of the extraction, or violence against people doing the extraction. Another tactic aims at increasing the cost of the enterprise by challenging each step in the extractive process through legal challenges where corporate time, money, and social capital are diverted to court battles. Likewise, resistance can target the financial structures necessary for extractive operations, which often require raising hundreds of millions if not billions of dollars. Taking on finance, for example, can target the Toronto Stock Exchange for its role as the accumulation mechanism for global mining by using divestment campaigns or shareholder activism. Expose, depose, propose, and politicize can target corporate green and human rights washing, or go after the bogus ESG standards for corporate conduct. Resistance can use proposals like the "precautionary principle" as further obstacles to corporate practices. Organizing consumer boycotts can pressure corporate conduct. Consumers in the global minority can also act in solidarity with community resistance in the global majority by reducing their ecological footprint with reduced consumption, participating directly in stopping corporations, and organizing their own communities in anti-capitalist resistance. The examples of direct action all derive from the anti-mining resistance among peasants in the Intag region of

Ecuador that have successfully defeated mining projects since the mid 1990s (Kuecker 2008, 2010, 2014).

Throwing wrenches at the extractive industry, however, faces the great power of the post-2015 world complex of actors. The sustainability discourse of technocratic rationality weaves together public policy from the transnational to local levels throughout the global system. The hegemony of SDGs demands mineral resources for decarbonization's electrified climate agenda. The complex's power of extrastatecraft, which is manifested by the power to convene (Kuecker 2015b) at forums like the Conference of the Parties or World Urban Forum, as well as the financial mechanisms of transnational institutions like the World Bank, dwarfs the power of wrench throwing. While mining might be stopped in places like Intag region, the victory displaces mining to other geographies where communities have less capacity for resistance. Mining marches forward as infrastructures like the 2030 Agenda get a free pass to do the work of decarbonization.

Another word for the post-2015 world complex is "development." Kuecker and Hartley (2021) argue that sustainability is the "new development," which was the new "modernization," which was the new "colonialism." Development, however, is part of something grander. It is the political agenda of counterinsurgency strategy (McClintock 1991) that aims to defend capital accumulation from asymmetrical threats. Human development tragically becomes part of capitalism's inequity and inequality and a necessary part of neocolonial statecraft. Resistance to extractivism provokes counterinsurgency, a point demonstrated by Morosin's (2020, 2021, 2023a, 2023b) work on indigenous resistance in Oaxaca's Isthmus of Tehuantepec but also shown in Kuecker's (2008, 2014) analysis of the Intag region of Ecuador as well as Rights Action's solidarity work in Guatemala and Honduras (Nolin and Russell 2022).

Defending the Pluriverse by Countering the Accumulation Mechanism

By pluriverse, Escobar (2018) invites us to see the world as a "multiplicity of worlds" consisting of a vast diversity in the human ways of being and the knowledges they contain. It is "a world where many worlds fit." The pluriverse is juxtaposed to the modern epistemic which flattens humanity into a singular, monocultural, universal proposition. Under modernity human potential is closed due to the monoculture, while the fluidity of the pluriverse keeps the narrative open. The flat, universal, closed qualities of modernity make it anachronistic in the openness, fluidity, and multiplicity of the liminal state. Escobar's pluriverse provides us with two significant concepts for the liminal state. First, he offers "design for transitions," which aims for articulated (smooth), intentional transitions necessary for navigating the "broken world" of the liminal state. Design transitions are emergent properties, which are adaptive, especially because they anticipate disruptions. It is also defined by collaborative, ground-up approaches to the transition. "Autonomous design" is the second concept, which invites us to think about ways to escape

modernity's predicaments that are free from capitalism's accumulation mechanisms, especially commodification and the enclosure of the commons. Autonomous design embraces bioregionalism's focus on locality, while connecting to environmental justice. It is a relational way of seeing and being because it prioritizes the interconnectedness of the world, and it tends to see long term.

In 2011, Hall and I examined who were the likely candidates for weathering the perfect storm of systemic collapse. The analysis built on the value of seeing outside the box of the modern world-system in which historical understandings of previous collapses show the importance of peripheral actors in both the decline of core geographies but also as seedbeds of emerging new systems (Chase-Dunn and Hall 1997). We converged world-system theory with complex adaptive systems and insights from post-colonial approaches to new social movements that emphasized the other knowledges of indigenous people, subsistence agriculturalists, migrants, and urban slum dwellers. We argued that the marginalized peoples of the periphery are the most likely to make it through systemic collapse, while the privileged people in the geographies of the center who are the global minority are most likely to perish. Working with researchers at RMIT University, I extended the argument to consideration of the importance of community within the resistance capacity of marginalized peoples of the periphery (Mulligan, Nadarajah, and Kuecker 2011, Kuecker 2017) to weather the perfect storm of systemic collapse. With the Transition Network, I argued how everyday life struggles for survival, against structural violence, and the battle for liberation from colonial legacies are foundations to the pluriverse's other knowledges. I (2018) further argued that other knowledges are anchored within peoples defending the commons in the form of autonomy, especially indigenous peoples and subsistence agriculturalists. In the liminal state the other knowledges of marginalized peoples on the periphery can act as emergent properties in the transition to a new world-system, especially if their pluriverse is recognized, nurtured, and protected. In the liminal state, however, the other knowledges of the remains of the global commons are not the only emergent property, as the fragmented remains of the modern world-system persist. Defending the pluriverse from anachronistic remnants of modernity is imperative, especially because they turn to apartheid, authoritarian and fascist methods of retaining power. Many knowledges—a pluriverse—are active in the liminal state, and during the transition resistance becomes a question of defending the other knowledges while stifling the persistence of the dark side of the modern world-system, especially the toxic mix of capitalism and authoritarianism that threatens a return of fascism. These arguments complement Chase-Dunn and Almeida's (2020) assessment of the threat right-wing politics presents to social movements but aligns more closely with Santos (2023) due to his stronger positioning of resistance within systemic collapse and the pluriverse.

Holding the ground of other knowledges and the pluriverse throughout the liminal state is Antonio Gramsci's "war of position," the revolutionary strategy when the war of maneuver in which the revolution is accomplished by seizing control of the state is not possible. The war of position is fought to change power relationships, especially in domains where state and capital do not always have a monopoly. The war of position chips away at the "common sense" of state and capital's hegemony, subverting their legitimacy by exposing the injustices they cause or exacerbate (Dagnino 1998; Bruhn 1999; Kuecker 2004). As the Zapatistas have instructed us, it can be a discursive battle, a war of words and ideas fought in the domain of culture, as well as Scott's (1987) "weapons of the weak." The war of position establishes "counter publics," places and spaces within the structures of domination where alternative domains thrive. Resistance to the extractive industry by targeting the actors constitutive of the post-2015 world complex becomes a war of position in which asymmetries within unequal power relations are leveraged against the mechanisms of capitalist reproduction.

The war of position can counter the reactionary politics of the global minority, especially as the legitimacy of liberalism falters due to the mounting crises of modernity's collapse as well as the resurgence of authoritarianism, White nationalism, apartheid, and fascism. As liberalism falters, modernity's hegemonic hold on the regimes of truth slides further into a post-truth epistemic condition (Keyes 2004, McIntyre 2018). Alternative facts compete for the publics causing an epistemic disruption and confusion that mixes with the instabilities of the liminal state. The politics of fear, nostalgia, anger, and resentment find their traction in conspiracy theories whose destination is a large, mobilized, and determined political force that has the potential to seize the liminal state and emerge hegemonic as the new world-system (Eco 1995; Rosenblum and Muirhead 2019; Stanley 2018). The populist iteration of the extremity of Right-wing politics leverages the distrust of elites (Mudde and Kaltwasser 2019; Hartley 2023). While the liberal elite in the media and popular culture are core targets in the politics of distrust, a more significant target is in play when the aim falls on the intellectuals, bureaucrats, politicians, and corporate leaders who constitute the swamp that needs to be drained (Cole 2022). With the United Nations and liberal internationalism already a favorite target, the 2030 Agenda complex is a sitting duck for a virulent right-wing reaction, as illustrated by the pandemic-driven lost legitimacy of the World Health Organization. A Supreme Court decision away from the United States tipping into fascism shows how precarious modernity's place in the liminal state has become.

A prefigurative politics for left-wing radical change can engage the battle against fascism. It can be found in urban studies, especially the critical urban theory that is informed by Lefebvre's right to the city, which was forged by the philosopher's distaste for the authoritarianism of technocratic urban planners as well as his experience as a member of the French resistance during World War II. Urban studies, however, witnessed a nasty intellectual dog fight over the use of

assemblage theory within radical approaches to the right to the city (Farias and Bender 2010; McFarlane 2011; Swanton 2011; Brenner, Madden, and Wachsmuth 2011). Acting as self-appointed gatekeepers to proper radical theory, critical urban theorists led by Brenner and Marcuse rejected assemblage urbanism's claim to a place within the right to the city body of knowledge. I side with the assemblage urbanists, because they offer a way to conceptualize the war of position in the liminal state. Favoring a fluidly open view of reality, assemblage theory appears well suited for conceptualizing the rhizomatic qualities of the liminal state's instabilities, rupture, and fragmentation. Assemblage approaches suggest paths forward in conceptualizing a path of counter power to the 2030 Agenda, because it opens the narrative of resistance by extending agency to non-human actors, which allows us to see the cracks in the system where power is vulnerable.

We can take the example of the "Prama Group"—a fictional name used for reasons of security—in post-Khmer Rouge Cambodia as related in Simone and Pieterse's (2017) *New Urban Worlds*. Resisting the power of corrupt elites, a group of adjunct professors organized a small, covert collective, in what Simone and Pieterse call "working in secret." Sequestered in a small apartment in Phnom Penh, packed with laptops and wall mounted diagrams, the group works with "an almost messianic devotion to detailing how the roughly forty families who run the country continue to acquire" their power to exploit the nation's resource wealth as well as the control of the urban economy. The group gathered intelligence by identifying the key weaknesses within the structures of power, which fell within the capital city's penchant for gossip, a network of information as opaque as the structures of power within the oligarchic family networks. The Prama Group secured information by integrating its network into the street markets, the places where those who work for the rich do their shopping, eating, drinking, and socializing. Often the street markets are the Foucauldian capillaries of power where the corrupt business networks sinew to the street level of commodity exchange, where gossip relates a bottom-up view of the structures of power. Simone and Pieterse (2017:118) explain, "While henchmen of the regime may crisscross the width and length of trading spaces, they concede the actual operations to more informal groupings," and it is the informality of the networks that creates the opportunity for subversive resistance. Leveraging the sense of "betrayal, resentment and jealousies" within the patron's clients—"the large coterie of domestics, drivers, managers, enforcers, errand boys, clients, sex workers, secretaries and personal assistants that keep the apparatus of social cohesion and deal-making together behind the façades of formal governmental positions"—the Prama Group sets out to undermine the structure of power by propagating rumors, circulating fake reports from consultancies about targeted businesses, photoshopping images of patrons at fake meetings that compromise their networks of power. The Prama Group uses information to create disinformation that results in messes that the corrupt need to clean-up often at great expense in financial and social capital. Simone and Pieterse (2017:120) summarize the tactics:

Dissimulation and trickery, long the weapons of the so-called weak, are cautiously experimented with here as a means of puncturing small holes in the otherwise seemingly seamless veneer of total control.

In the “dissonant times” of the “broken world” the liminal state presents opportunities for adopting but not cutting and pasting the Prama Group’s resistance in taking on the extrastatecraft power of the 2030 Agenda.

George published the *Lugano Report: On Preserving Capitalism in the Twenty-First Century* in 1999. The report was a satirical, fictional product of a fictional group of planners tasked with saving capitalism. It found that capitalism is an unlikely candidate for survival because it is undermanaged, threatened by its own success, and subject to ecological collapse. Widespread discontent with neoliberal globalization made satire an appropriate writing voice for George’s analysis, especially because the use of satire implies the delegitimization of technocratic power and knowledge. The satire also suggests how falsifications such as those deployed by Cambodia’s Prama Group can undermine the technocrats’ claim to legitimacy.

One can imagine the possibility of a “weapons of the weak” counterpower inspired by the example of misinformation campaigns illustrated by the Prama Group and George’s *The Lugano Report*. Further insight comes from counterinsurgency’s political operations where psychological operations target individuals, communities, and organizations within an insurrection. Resistance to the 2030 Agenda complex might learn from the Central Intelligence Agency (CIA) manuals that provided guidance in “simple sabotage” (Office of Strategic Services 1944), “trickery and deception” (Melton and Wallace 2009) as well as the aforementioned “psychological operations” (Central Intelligence Agency 1984). Disruptive disinformation campaigns fall well short of the more drastic counterinsurgency measures contained within state of exception, extrajudicial juridical use of violence, including assassination, such as Operation Phoenix where the CIA program killed an estimated 20,000 Viet Cong political operatives among more than 80,000 “neutralized” individuals between 1968 and 1972 (Valentine 1990). The Colombian use of counterpower to take down Pablo Escobar and the Medellín Cartel reached a stalemate before *Los Pepes* brought the full force of extrajudicial juridical violence that dismantled the structures of the cartel’s power (Bowden 2018). Or we can turn to the example of the Israeli Defense Forces (IDF) using post-structuralist theory to devise counterinsurgency strategies for the utter messiness of urban warfare. As Weizman (2006) reveals, study groups reading Deleuze and Guattari’s *Thousand Plateaus* as well as the works of Debord developed what Brigadier-General Kikhavi described as “inverse geometry” that conceived urban space as syntax to be reorganized through a set of minute tactics that resulted in “overground tunnels” that obviated the dangers of street combat by “walking through walls” – physically bypassing the street by horizontally passing

through the interior walls of houses. The key to the tactic is the assemblage notion of fluidity that redefines the material spaces of the city as actants for counterinsurgency to engage. When combined with swarming—the use of multiple disruptions to the urban syntax that overwhelm an insurgent’s capacity to operate in the urban environment—the IDF’s tactics disorientate the target’s strategic orientation by undermining its fixed categories.

With the emergence of artificial intelligence (AI), the possibilities for misinformation campaigns against 2030 Agenda significantly increase the capability of disrupting the power/knowledge of technocratic rationality. Russian interference in United States elections features misinformation campaigns spread via social media that aim to undermine citizens’ trust in the electoral system to an extent that any lost election becomes a stolen election. The legitimacy of democratic institutions in the U.S. is in peril heading into the 2026 congressional elections. Another example comes from California Governor Newsom who deploys social media to propagate satirical disinformation that reveals core truths.

Psychological operations can disrupt the established structures of power/knowledge of the 2030 Agenda complex in at least six ways. First, it can make transparent the common-sense assumptions that the actors are legitimate due to their expertise, especially by showing their lack of objectivity, biases, interests, as well as the social networks and contexts that make decisions. Second, misinformation can enhance the public’s doubt and uncertainty about what constitutes an expert and what makes them authoritative. Alternative facts and narratives constructed on the big lie undermine the perception of technocratic infallibility. Anti-vaccine campaigns during COVID-19 show how disinformation and questioning expert authority morphed into the school board wars and book banning, and how promoters of the big lie, such as Chris Rufo (Wallace-Wells 2021) become significant players within right-wing politics. The populist politics of questioning expertise helps to delegitimize technocracy and present it as an elitist, anti-democratic form of unaccountable governance (Cole 2022). Third, misinformation can challenge the monopoly of expertise enjoyed by the 2030 Agenda complex of actors, which can create openings for alternative narratives and epistemics to gain traction in the liminal state. Fourth, misinformation can target tensions within the complex and take advantage of the latent and manifest conflicts between its members. Fifth, rumors can travel fast and far at meetings like UN Habitat’s World Urban Forum, where tens of thousands of delegates gather for a week-long agenda. Finally, participatory forms of decision making such as those practiced at progressive gatherings like the World Social Forum can gain traction with disinformation that leads people to perceive the 2030 Agenda as lacking inclusive decision-making processes.

Objections to the use of psychological operations against the 2030 Agenda rest on the merits of liberalism, especially the confident conviction that the rule of reason abhors the big lie while placing a premium on the facts as the foundation for truth claims. Psychological operations poison

the fact-based truth ecosystem. McQuaid's (2024) *Attack from Within: How Disinformation is Sabotaging America* makes the compelling argument against the weaponization of disinformation within a liberal democracy by showing how it is a key tool within the authoritarian playbook. The sanctity of fact-based truth within the liberal ethos constitutes a line in the sand where resistance ought not cross, a prohibition necessary for guarding against the slide into authoritarianism and the dystopian world portended by the Frankfurt School of Sociology's dark side of modernity. Once the lie becomes a normalized practice within the toolbox of resistance, the resistance becomes irreparably corrupted. The "end justifies the means" and "by any means necessary" logic of psychological operations opens a Pandora's box of oppressive ills that inevitably transforms resistance into a creature more horrific than the monster it sought to slay. The liberal counterargument is compelling; however, it is muddied in the liminal state due to the transition's epistemic instabilities. As the hegemony of liberal internationalism declines the guardrail of the rules-based system gives way to an anything goes disordering. At this point following the liberal ruleset might become an anachronistic handcuff that deprives resistance of a weapon of the weak.

Conclusion: To See the Devil's Way to the End

In his 1917 Munich lecture, "Science as a Vocation," Max Weber stated, "First of all, one has to see the devil's way to the end in order to realize his power and his limitations" (Gerth and Mills 1946:152). The lecture invites us to reach beyond technical expertise Weber saw creeping into the modern epistemic because he thought technocracy could not bring us to the deeper existential issues of being human. The devil's way within the technocratic rationality of the post-2015 world brings humanity to one of the great existential moments that comes with the great moments of transition, those times when everything is disrupted, anything becomes possible, even Donald Trump, and the stakes, especially if we toss the world's 12,300-plus nuclear weapons into the disruption, instability, and disorientation of the liminal state, this would involve the continuation of life on the planet. Deciphering the end of the devil's way involves understanding the limits of technocratic power/knowledge at this moment in the modern world-system's soft collapse and the opening phases of the liminal state's great transformation to a new world-system. In the liminal state, technocratic rationality is epistemically destabilized by the collapsing structures of modernity, and that instability currently manifests in an epistemic panic, the moment when the technocrats realize the cycle of power/knowledge that premises their legitimacy as experts—the devil's way—is ending. The realization happens because their technique falters in the onslaught of crises their way of thinking created. Their epistemic panic makes technocratic rationality vulnerable to a counter power aimed at compromising technocracy's claim to legitimacy that clears the way for the other knowledges of the pluriverse to gain traction as the liminal state's emergent properties in the formation of the new world-system. Key to this analysis is the recognition that

one articulation of the devil's way is the 2030 Agenda, especially its function as the accumulation mechanism of capitalist reproduction in the liminal state. Taking down the 2030 Agenda is an important part of the path to ending capitalism in the liminal state that secures a just transition for the global majority as they build the new world-system.

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Disclosure Statement: Any conflicts of interest are reported in the acknowledgments section of the article's text. Otherwise, authors have indicated that they have no conflict of interests upon submission of the article to the journal.

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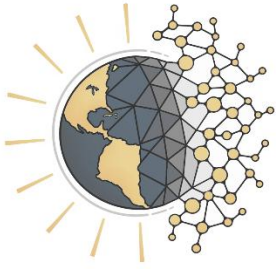
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Theorising the Interregnum: The Semi-Core Challenge to Western Hegemony, Technical Workers and the Shaping of a 'New World Order'

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Abstract

This article examines the current geopolitical and economic interregnum through the lens of World-Systems theory, focusing on what Ege Demirel (2024) identifies as the emergence of a “semi-core,” represented most prominently by China and Russia. Drawing on recent philosophical work by Zygmunt Bauman, empirical evidence from China's 'Global Community of Shared Future' white paper and Putin's 2024 Valdai address, alongside theoretical insights from contemporary Chinese Marxism, it argues that the semi-core's challenge to Western hegemony creates unique conditions for systemic transformation.

Particular attention is given to the role of technical workers, whose strategic position at the intersection of competing infrastructural systems and alternative visions of global order makes them potentially crucial actors in determining the outcome of the current interregnum. By examining the philosophical foundations of Chinese Marxism—particularly its dialectical approach rooted in the yin-yang principle—the article reveals that the semi-core challenge represents not merely alternative policies but an alternative epistemology that fundamentally differs from Western either/or logic.

Drawing on research by Muldoon, Graham, and Cant (2024) on the hidden labor supporting AI systems and the geopolitical competition over digital infrastructure, the article demonstrates how technical workers' potential for progressive transformation lies not just in their strategic importance and specialized knowledge but in their ability to build solidarity across the broader ecosystem of AI labor while between otherwise incommensurable philosophical and infrastructural systems.

Keywords: Interregnum, Semi-core, Technical Workers, Artificial Intelligence, World Systems Theory, Hegemony, Digital Infrastructure, China, Russia, Global South, Chinese Marxism, Dialectics



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Writing in 1994, an Argentine academic, Atilio Boron, presciently observed that the United States' days as world hegemon were already over (Boron 1994).¹ His article was ridiculed at the time but with hindsight his observation can be seen as marking the beginning of what Gramsci termed an "interregnum"—a period when "the old is dying and the new cannot be born" (Gramsci 1971:276). Three decades later, as the Ukraine misadventure, the destabilisation of the Middle East and the chaotic second term of Donald Trump attest, this interregnum continues to generate, in Gramsci's terms, "morbid symptoms," yet despite the seeming steps towards catastrophe, within it lie possibilities for progressive transformation powerfully illustrated by two recent interventions from the emerging Eurasian powers: China's 2023 white paper on 'A Global Community of Shared Future' (MFA PRC 2023) and Putin's November 2024 Valdai Address (Putin 2024). Both articulate a comprehensive alternative to Western hegemony.

This article draws on philosophical and sociological research about the current situation and argues that the emergence of what Demirel (2024) terms the "semi-core"—represented by Russia and China—creates unique conditions for systemic transformation, in which technical workers, operating at the intersection of competing infrastructural systems and alternative visions of global order, could play a crucial role in determining whether this interregnum leads to new, more repressive forms of capitalist hegemony, a more democratic, possibly socialist world system, or continuing crisis and anarchy.

The article analyzes primary documents from China (2023 white paper) and Russia (2024 Valdai address) alongside theoretical work by Demirel, Bauman, and recent scholarship on Chinese Marxism to examine how the semi-core articulates alternatives to Western hegemony. It particularly focuses on these documents' vision of international order and their relationship to technical workers' potential role in systemic transformation due to their importance in the development of automated production processes powered by AI. Crucially, it also examines how Chinese Marxism's philosophical distinctiveness—particularly its dialectical approach rooted in

¹ It might be objected that recent events, particularly the Trump administration's unpunished exercise of coercive power against Venezuela, Cuba, and Iran in 2026, suggest that US hegemony remains intact. I find this reading unconvincing. As Wallerstein (1979) and Arrighi (1994) both recognise, hegemony rests on consent as much as coercion; the resort to unilateral military force and economic punishment in the absence of allied support is precisely the mark of a hegemon in decline. I would argue the refusal of key allies to join the 2003 invasion of Iraq marked a turning point, and the pattern has since deepened. The United States can no longer sustain its NATO commitment to Ukraine, its violent reassertion of dominance in the Greater Caribbean has alienated rather than disciplined regional actors, and the BRICS states, including the targeted Iran, have continued to develop alternative financial and diplomatic architectures despite US pressure. A hegemon that must coerce where it once led, and that retreats into its own hemisphere while claiming global reach, is exhibiting the symptoms of decline that Boron, Wallerstein, and Arrighi all describe.

traditional Chinese thought—shapes the semi-core's alternative vision in ways that Western Marxist frameworks may struggle to comprehend.

The End of Western Hegemony and the Rise of the Semi-Core

Within World-Systems Analysis, both Wallerstein (1979) and Arrighi (1994) identify the structural roots of US hegemonic decline in the 1970s. For Wallerstein, the post-war golden age of US dominance contains the seeds of its own erosion: as European and Japanese competitors recovered and the costs of hegemonic maintenance mounted, the material basis of US supremacy began to contract. Arrighi's analysis of hegemonic cycles traced a recurring pattern in which a shift from productive to speculative capital signals the "autumn" of hegemony — precisely the financialization that has characterized the US economy from the 1970s onwards. Boron's (1994) observation that US hegemony is already effectively over thus confirms what these theorists anticipated: that the apparent "unipolar moment" following Soviet collapse was a final flare rather than a genuine renewal. Like Wallerstein and Arrighi, Boron recognizes that hegemony demands more than military might — it requires ideological leadership, institutional capacity, and above all productive economic supremacy — and that on all three counts the US position has been eroding for decades.

The transition Boron identifies has since deepened through three interconnected developments. First, the massive export of US manufacturing capacity — particularly to China — has fundamentally hollowed out the productive base that underwrote post-war hegemony. Second, and paradoxically, the rise of US corporations to dominance in information technology and AI — through companies like Microsoft, Apple, Google, Meta and Amazon — creates an *appearance* of continued economic supremacy that masks this underlying erosion. Third, the outsourcing of labor-intensive AI data training to peripheral countries has embedded new forms of neocolonial extraction into the very infrastructure of the emerging digital economy. Together, these developments have not simply weakened US hegemony but transformed the structural conditions under which any future hegemonic order must be built.

This transformation of global production relations suggests something more fundamental than a simple shift in manufacturing and value adding capacity. Demirel's (2024) recent theorization helps explain why the current interregnum is uniquely transformative. Unlike traditional semi-peripheral states that act as "buffer zones" stabilizing the world system, Russia and China represent what Demirel terms the "semi-core"—states that combine core characteristics (military power, technological capacity, institutional autonomy) with an alternative vision of global order. The emergence of this "semi-core" is both a symptom and accelerant of the systemic crisis, creating what Demirel describes as an "anomaly" in the world system that could lead to

three possible outcomes: "a China centred (or China centred backed by Russia) capitalist world-system, a socialist world-system, or an anarchic world-system" (Demirel 2024:388).

This theoretical framework helps explain why the current situation represents more than just another hegemonic transition. In World Systems theory terms, it reflects a core-periphery strategy that has ultimately backfired. While the US and other core countries retain control over data centers, R&D, software development, and patents, they increasingly rely on peripheral countries for actual production and the extraction of value from labor through post-colonial and neocolonial relationships of exploitation. Data centers represent crucial infrastructure, as Muldoon, Graham, and Cant (2024) document, a single hyperscale facility can use as much power as 80,000 American households. This concentration of infrastructure creates what they term an "extraction machine" which intensifies value extraction while concentrating power in the hands of those who own and control the infrastructure.

China has now successfully broken out of this dependent relationship through a systematic strategy of technological learning, domestic innovation, and state-directed development. As Breslin (2011) argues, China's approach is best understood as a neo-Listian developmental state — following the same logic of strategic industrial protection, managed integration into the global economy, and state-directed investment in productive and mental capital that enabled Germany, the United States, and East Asian developmental states to challenge dominant powers before it. Far from being a novel deviation from the norm, China has consciously deployed tools that Western powers themselves used before they became champions of free trade. At the international level, the Belt and Road Initiative extends this strategy, building alternative infrastructure corridors across Asia, Africa and Europe that create trading networks outside US-controlled sea lanes and financial systems. As Muldoon et al. (2024) document, the result is a digital and physical infrastructure that now genuinely rivals the West's, transforming China from a dependent manufacturer of Western-designed products into an autonomous center of technological innovation and standard-setting.

This transformation is explicitly recognized by the semi-core leadership. In his 2024 Valdai address, Putin articulates this shift: "The former world arrangement is irreversibly passing away... It is a clash of the very principles that will underlay the relations of countries and peoples at the next historical stage" (Putin 2024). This is not merely rhetoric—it reflects what Demirel identifies as the semi-core's fundamental challenge to existing global institutions.

The 2008 financial crisis marked a crucial turning point. China recognized its dangerous dependence on US markets, while the US confronted its vulnerability due to massive debt holdings by China. This mutual recognition of systemic risk accelerated China's determination to develop alternative international institutions and markets, to carve a path independent of the 'West' and to

reshape the global order. On the other hand, the event marked the beginning of what has become a US posture of antagonism toward China.

China's response has gone beyond solely defensive measures. Through BRICS, China has systematically worked to create alternatives to dollar hegemony, developing new payment systems, currency swap arrangements, and trading mechanisms that bypass Western financial control. Two institutions are particularly significant in this regard. The New Development Bank (NDB), established by BRICS members in 2015, provides development financing outside the conditionalities of the World Bank, offering an institutional alternative to Western-dominated development finance (Chin 2023). The Contingent Reserve Arrangement (CRA), also established in 2015, provides a mutual financial safety net outside the International Monetary Fund, reducing member states' vulnerability to the kind of financial pressure the US has historically deployed to enforce compliance with its economic preferences (Chin 2023). Most strikingly, the mBridge project — a blockchain-based cross-border payment platform developed collaboratively by the central banks of China, Hong Kong, Thailand and the UAE — represents a direct institutional challenge to the SWIFT payment system through which the US has historically exercised financial coercive power, most dramatically illustrated by Russia's exclusion from SWIFT following its invasion of Ukraine (Baker 2024). Russia has further accelerated this process by promoting transactions in its own and trading partners' currencies, demonstrating that the Western financial system can be partially circumvented even under extreme pressure. The recent expansion of BRICS to include associations with other major Global South economies marks another decisive shift in the global financial architecture, indicating both the declining power of US financial warfare capabilities and growing confidence in these alternative arrangements.

The dynamic nature of these alignments was demonstrated in November 2024, when China reached out to the EU following Trump's re-election. The *South China Morning Post* reported that the Chinese foreign ministry's deputy head in charge of European affairs, Cao Lei, said Trump's victory may indicate "the turning point of [our] times" and that he urged Brussels and Beijing to improve ties: "No one wants to return to the law of the jungle, no one wants to go back to the era of confrontation and the Cold War, and no one wants to return to unilateral hegemony. This is the backdrop that China-EU relations are facing," he said" (Wu 2024). This diplomatic pivot illustrates how the semi-core is actively working to reshape global relationships during this interregnum period. The fact that the US under Trump seems to have rejected this overture by trying to exert military dominance in key strategic areas such as the Greater Caribbean and the Middle East appears in this context as an act of desperation by a dying empire.

Alternative Visions of Global Order: The Philosophical Foundations

Along with the development of BRICS, China has proposed its vision of a "Shared Community of Mankind" (MFA PRC 2023). This blueprint represents more than diplomatic rhetoric—it articulates a comprehensive alternative to the US-led liberal international order rooted in fundamentally different philosophical foundations. Understanding the depth of this alternative requires examining how Chinese Marxism differs epistemologically from both Western and Soviet Marxism.

The Dialectical Distinction: "And" Versus "Or"

Recent scholarship on Chinese Marxism reveals that its distinctiveness lies not merely in adaptation to local conditions but in its integration with traditional Chinese dialectical thinking. To understand this distinctiveness, it is necessary first to appreciate how Western Marxism has approached the dialectic. Engels' codification of dialectical materialism in *Dialectics of Nature* established what he termed the three laws of dialectics — the unity and conflict of opposites, the transformation of quantity into quality, and the negation of the negation — a framework rooted in Hegelian either/or logic in which contradictions are ultimately resolved through the victory of one element over another. This tradition was deepened in Western Marxism by Lukács' *History and Class Consciousness*, which grounded revolutionary consciousness in the Hegelian dialectic of subject and object moving toward resolution and totality. As Mahoney (2024) argues, this either/or framework — prefigured in the grammatical structures of Indo-European languages and codified philosophically in Aristotle's law of non-contradiction — fundamentally shapes how Western Marxism approaches contradiction and struggle, tending toward what Mahoney describes as "radical differentiation" and "zero-sum perspectives" in policy-making.

Chinese Marxism developed from fundamentally different premises. As Cheng and Yang (2025) demonstrate in their analysis of the Sinicization of Marxist theory, Mao's theoretical innovation was precisely to insist that "all existing things display the contradictory movement of the unity of opposites" — not as a temporary condition to be resolved through the victory of one side, but as the permanent and productive condition of reality itself. The yin-yang principle articulated by Laozi and embedded in the structure of Chinese characters from the Shang dynasty onwards represents a logic of complementary opposites that must be preserved in productive tension rather than resolved through the domination of one by the other. As Mahoney (2024) observes, when Mao was writing "On Contradiction" in 1937, he had just captured Chiang Kai-shek and instead of eliminating him, forced the Second United Front — this is **and-logic**, not **or-logic**, in direct political practice. Mao explicitly rejected Stalin's 1938 restatement of the three laws of dialectics, later declaring that only the unity of opposites constitutes the true dialectical law (Stalin 1938), with all others derivative. This was not merely theoretical abstraction: it explains

the peasant-worker alliance that defied orthodox Marxist theory, and later the simultaneous pursuit of cultural revolution domestically and opening to the United States internationally. Significantly, Mao reinforced this dialectical approach by returning to Laozi and Zhuangzi, integrating Daoist principles with Marxist method — what Xi Jinping later termed the "first integration" of Marxism with epistemological traditions native to China (Mahoney 2024). This integration was not opportunistic syncretism but reflected a recognition that the dialectical method could only function effectively in China if grounded in existing Chinese ways of understanding contradiction and change.

The "Shared Community" Vision As "And" Logic

The vision of a "Shared Community of Mankind" represents this dialectical thinking applied to international relations. Where Western hegemony is premised on what the document critiques as "the idea that 'all strong countries will seek hegemony', the obsession with superior strength, and the zero-sum mentality" (MFA PRC 2023), China's alternative vision explicitly rejects these premises as expressions of the either/or logic. The white paper directly confronts "the law of the jungle and the winner-takes-all mindset," arguing instead for "inclusive development for the benefit of all" as the path forward—preserving rather than resolving the contradiction between different development paths and political systems.

This philosophical departure manifests in several key dimensions. First, while Western hegemony emphasizes military dominance and "absolute security" (an either/or formulation where one's security requires another's insecurity), the Chinese vision foregrounds interdependence, arguing that "all countries, adjacent or distant, large or small, developed or developing, are members of an emerging community of shared interests, responsibility, and destiny, whose wellbeing and security are interrelated" (MFA PRC 2023). This is not empty rhetoric but reflects the dialectical understanding that opposites must be preserved in productive tension rather than resolved through domination—security is not zero-sum but mutually constituted and interdependent.

Second, where Western approaches often prioritize market supremacy and unilateral advantage, the document critiques those who are "pushing for decoupling, severing and 'derisking' supply chains," instead emphasizing collective development and shared prosperity (MFA PRC 2023). This reflects the Chinese understanding that contradictions—including those between competing economic systems—can be managed through integration rather than resolution. The "socialist market economy" itself exemplifies this and logic, preserving the contradiction between plan and market rather than resolving it through dominance of one over the other.

Perhaps most significantly, the vision directly challenges the theoretical underpinning of Western hegemonic thought—that rising powers inevitably seek domination. The white paper

explicitly states that "there is no iron law that dictates that a rising power will inevitably seek hegemony," characterizing this assumption as "typical hegemonic thinking" grounded in past catastrophic conflicts and the either/or logic that structures Western thought (MFA PRC 2023). Instead, it presents an alternative model where development and national rejuvenation are pursued "through our own efforts, rather than invasion or expansion."

This rejection of hegemonic inevitability has deep roots in Chinese political tradition. Historical analysis reveals that Chinese statecraft developed recognition of natural limits—that overextension imperils the system itself. As Mahoney (2024) documents, the tribute state system, the decision to dismantle Admiral Zheng He's fleet despite naval supremacy in the 15th century, and the emphasis on creating buffer zones rather than direct conquest all reflect this understanding. The Chinese discovered through millennia of statecraft that "if it were to go beyond that limit, it would imperil the system itself," leading to recognition that "whoever controls the Tibetan plateau controls China" but also that expansion beyond natural limits creates unsustainable vulnerabilities (Mahoney 2024). While these historical precedents should not be romanticized or viewed as guaranteeing contemporary behavior, they do suggest a political culture that has historically viewed imperial expansion as systemically destabilizing rather than as evidence of strength.

These philosophical departures have concrete ontological expressions in the institutions China has helped construct. The voting structure of the New Development Bank is itself a direct institutional embodiment of *and* logic — unlike the IMF, where voting weight reflects economic size and thus entrenches core dominance, the NDB allocates equal shares among founding members regardless of the vast differences in their economic scale. This is not merely procedural but reflects a fundamentally different conception of international order: one in which the contradiction between large and small, developed and developing, is preserved in productive tension rather than resolved through the dominance of the larger. Similarly, the Shanghai Cooperation Organization demonstrates *and* logic at the level of geopolitical architecture — integrating states that are genuine rivals, most strikingly China and India, into a single cooperative framework without requiring them to resolve their contradictions or subordinate their interests to a hegemonic center. As Mahoney (2024) notes, this required China to actively demonstrate that it was not seeking hegemony, understanding that the institution could only function if the contradiction between its major members was preserved rather than eliminated. These institutional forms thus represent not merely alternative policies but an alternative ontology of international order — one structured through integration of difference rather than its resolution.

The Non-Portability of the Chinese System

This philosophical framework also illuminates a crucial difference from both Western liberal democracy and Soviet communism. As Mahoney (2024) emphasizes, "the Chinese political system

is not portable" precisely because it depends on the integration of Marxist method with Chinese epistemological traditions. Xi Jinping's concept of the "two integrations" makes this explicit: Chinese Marxism works because it integrated first with China's specific material conditions and second with Chinese traditional ways of thinking (Mahoney 2024). Unlike Western universalism, which claims its political forms are applicable everywhere, or Soviet internationalism, which sought to export its model, Chinese Marxism explicitly recognizes that political systems must be culturally embedded rather than universally imposed.

This recognition represents a fundamental departure from Western hegemonic assumptions. As the white paper states, China has found "the solution to development without doing the things that the western countries did"—without imperialism, slavery, genocide, or the primitive accumulation financed by stealing people and resources (Mahoney 2024; MFA PRC 2023). This is not merely moral superiority but reflects the understanding that what works in one context cannot be mechanically transplanted to another—each society must find its own integration of universal principles (like Marxism) with local traditions and conditions.

Putin's "Polyphonic" Vision

This philosophical rejection of hegemonic thinking is echoed in Putin's vision of a "polyphonic rather than polycentric" world order where "all voices are heard." At Valdai, he explicitly contrasts this with Western approaches: "Unlike our counterparts, Russia does not view Western civilisation as an adversary, nor does it pose the question of 'us or them'" (Putin 2024). This alignment between Chinese and Russian visions demonstrates what Demirel identifies as the semi-core's ability to articulate alternative principles for a new global order—principles rooted in **and-logic**, rather than **or-logic**.

Practical Manifestations

The practical manifestation of this vision can be seen in China's approach to international development. Unlike the conditionalities of the Washington Consensus with its demands for privatization and deregulation (an either/or choice between market fundamentalism and exclusion), China's approach emphasizes infrastructure development, technological transfer, and state-led industrialization. The Belt and Road Initiative embodies this strategy, offering partner countries development assistance without political conditions while creating alternative economic corridors that bypass US-controlled sea lanes (Muldoon et al. 2024). This approach reflects the dialectical principle: rather than forcing conformity to a single model (the *either/or* approach), it seeks to preserve diversity while building interconnection (the *and* approach).

The Shanghai Cooperation Organization provides another example. Rather than forcing members to choose between China and Russia (*or-logic*), it integrates potential rivals—China,

Russia, and India—into a single framework that preserves their contradictions in productive tension. As Mahoney (2024) notes, this required China to "work hand-in-hand with Russia...to ensure that they weren't operating as a hegemon or an imperial power and then ultimately to further advance those efforts they had to bring India in as a major partner." The result is an institution that demonstrates "the actualization of avoiding imperialism and hegemony as a way of constructing greater security in Asia."

Theorizing the Interregnum

This vision gains particular significance when understood through Demirel's (2024) concept of the "semi-core." As noted above, unlike traditional semi-peripheral states that help stabilize the existing order, the semi-core is actively working to create alternative institutions and norms that fundamentally challenge the existing hegemony. China and Russia's ability to create alternative financial institutions, trading networks, and development models means they can offer the Global South genuine alternatives to Western-dominated institutions in a way that previous challenger states could not. Their combination of material capabilities and alternative vision creates what Demirel argues is a *fundamental philosophical and practical departure from the Western-dominated international order* (Demirel 2024).

However, recognizing the philosophical distinctiveness of Chinese Marxism adds a crucial dimension to this analysis. The interregnum is not merely about competing power centers but about fundamentally different ways of conceptualizing order itself. Where Western hegemony has operated through *either/or-logic*—demanding that states choose between democracy or authoritarianism, market or planning, Western alignment or isolation—the semi-core's alternative operates through *and-logic*, that seeks to preserve productive tensions and multiple pathways. This represents not just different policies but different epistemologies—incommensurable ways of understanding how the world works and how change occurs.

The fundamental nature of this transformation requires us to understand it not just as a shift in power relations but as a period of systemic transition involving competing frameworks of thought. Here, the German philosopher Zygmunt Bauman's analysis of interregnum complements Demirel's insights. The current global transformation can be theoretically understood through these complementary frameworks. Where Bauman explains how "the extant legal frame of social order loses its grip and can hold no longer, whereas a new frame, made to the measure of newly emerged conditions responsible for making the old frame useless, is still at the designing stage" (Bauman 2012:50), Demirel (2024) helps us understand why this interregnum is uniquely transformative—it involves the emergence of a semi-core that combines material capabilities with an alternative epistemology rooted in different dialectical premises.

This theoretical synthesis, enriched by understanding of Chinese Marxism's philosophical foundations, helps us understand three crucial aspects of the current global transformation: the dissolution of traditional power structures, the crisis of institutional adequacy and uncertainty of transition.

The Dissolution of Traditional Power Structures

Bauman's observation that "sovereignty is nowadays... unanchored and free-floating" (Bauman 2012:50) gains new significance when combined with Demirel's insight that the semi-core represents more than just another challenger to hegemony. As I have argued, unlike traditional semi-peripheral states that help reproduce core hegemony, Russia and China combine core characteristics (military power, technological capacity, institutional autonomy) with alternative visions of global order rooted in different philosophical foundations. Their emergence thus represents not just a power shift but a fundamental challenge to the epistemological assumptions underlying the world system itself.

As I have explained above, where Western policymaking tends toward "radical differentiation" and "zero-sum perspectives," Chinese policymaking operates through integration of opposites. This explains seemingly paradoxical policies like the "socialist market economy," "one country, two systems," and the simultaneous pursuit of opening to the West while maintaining party control.

The Crisis of Institutional Adequacy

What Bauman identifies as the growing "institutional disparity" between global problems and local political tools is exacerbated by what Demirel describes as the semi-core's active creation of alternative institutions (Bauman 2012; Demirel 2024). Through mechanisms like BRICS, the Belt and Road Initiative, and the Shanghai Cooperation Organisation, the semi-core is not merely seeking inclusion in existing institutions but creating parallel structures that embody fundamentally different organizing principles.

The Shanghai Cooperation Organization's integration of potential rivals (China, Russia, India) reflects the dialectical understanding that opposites can be preserved in productive tension rather than resolved through domination. As Mahoney (2024) notes, this required convincing "Russia and India that [China] is not seeking hegemony because firstly it understands that it can't exercise hegemony over Russia or India." This represents an attempt to create what Bauman calls the "positive globalization" of political representation, but in a form that breaks decisively with Western models and their underlying *either/or-logic* (Bauman 2012:53).

The contrast with Western institutional frameworks is stark. Where institutions like NATO, the IMF, and the World Bank have historically demanded conformity to Western norms and

subordination to US strategic interests (reflecting *or-logic*), institutions like the SCO and BRICS explicitly preserve diversity while building coordination (reflecting *and-logic*). Members are not required to adopt identical political systems or economic models but rather to coordinate on specific issues while maintaining their distinctive approaches.

The Uncertainty of Transition

Bauman's insight that periods of interregnum are characterized by "chronic as well as unredeemable uncertainty" takes on new meaning when situated within the broader scholarly conversation on non-hegemonic periods (Bauman 2012:50). Babic (2020) argues that such periods must be understood as analytically distinct in their own right — not merely transitions between stable orders — characterized by deep structural roots, a corrosion of institutional legitimacy from within, and morbid symptoms that can neither be managed nor resolved into a viable alternative. Stahl (2019) adds that interregnum periods are defined not by the absence of ideological projects but by the presence of competing projects none of which can achieve sufficient consensus to become hegemonic — and that such periods of non-hegemony, far from being anomalies, can persist for decades. Combined with Demirel's analysis of possible outcomes and the recognition of philosophical incommensurability, this framework helps us understand why the current moment is qualitatively different from previous hegemonic transitions. The semi-core's emergence creates what Demirel identifies as three possible futures: a China-centered (or China-Russia centered) capitalist world system, a socialist world system, or an anarchic world system (Demirel 2024:388).

This uncertainty is qualitatively different from previous hegemonic transitions because it involves not just a change in leadership but potentially in the fundamental organizing principles of the world system itself. The question is not merely who will be hegemon but whether the next order will be structured through *either/or-logic* (requiring universal conformity to a single model) or through *and-logic* (preserving diversity while building interconnection). As Mahoney (2024, 2:10:21) argues, the Chinese political system is explicitly "not portable" — China has never fallen into what he terms "this idealist trap" of democratic universalism, the assumption that the Western model can simply be imposed on Afghanistan, Iraq, or elsewhere. China recognises that not only can its own system not rule others, but that others equally cannot simply copy the Chinese system.

This uncertainty extends to whether mutual comprehension between these incommensurable frameworks is even possible. Can societies structured through *either/or-logic* understand, let alone cooperate with, societies structured through *and-logic*? Or does philosophical incommensurability doom us to incomprehension and ultimately conflict? The answer to this question may determine which of Demirel's three outcomes emerges.

Technical Workers At the Intersection

This synthesis suggests that technical workers' potential role in social transformation should be understood in a new light. Their strategic position at the intersection of global production networks and emerging alternative institutions means they could play a crucial role in determining which of Demirel's three possible outcomes emerges from the current interregnum. As Bauman helps us understand, this period of uncertainty creates openings for new forms of political agency, while Demirel's framework helps us see why technical workers' specialized knowledge, crucial importance to the new digital economy and their international connections make them potentially pivotal actors in either facilitating or resisting the emergence of new institutional frameworks and modes of global coordination (Bauman 2012; Demirel 2024).

Moreover, technical workers' exposure to different philosophical and organizational approaches—working within Western corporate structures while increasingly engaging with Chinese technological development—positions them uniquely to comprehend and potentially mediate between incommensurable worldviews. Unlike political leaders or ideologues committed to particular frameworks, technical workers engaged in concrete problem-solving may develop practical bridges between incompatible logics. They experience daily the differences between Western competitive winner-takes-all approaches and Chinese emphasis on parallel standards and long-term coordination. This experiential understanding, grounded in material practice rather than abstract theory, may prove crucial in navigating the philosophical incommensurability that characterizes the current interregnum.

The implications of this theoretical framework become clearer when we examine current developments in the global system. The rapid expansion of alternative financial institutions, for instance, reveals the semi-core's attempt to create entirely new frameworks of global coordination that embody what I have identified as a *fundamental philosophical departure* from Western models (Demirel 2024). These are not merely technical adjustments to existing systems but attempts to operationalize different organizing principles rooted in alternative dialectical frameworks.

A part of this contest is associated with the emergence of artificial intelligence and robotics. This emerging technological change creates new dynamics in this contest between emerging world systems. These technologies represent not merely technical advances but transformative forces reshaping class relations and production systems globally. As Marx anticipated in his "Fragment on Machines," the increasing automation of production through self-replicating systems will make traditional human labor increasingly obsolete while introducing new forms of proletarianized intellectual workers necessary in the production of AI (Marx 1973:692-710; Muldoon et al. 2024). However, unlike in Marx's time, this transformation is occurring in a world where both the development and deployment of these technologies is contested between rival centers of power operating from fundamentally different philosophical premises.

Technical Workers and Infrastructure in the New World Order

The emergence of AI and automation has fundamentally reshaped class formation and labor relations globally. As Muldoon, Graham, and Cant (2024) demonstrate, rather than eliminating human labor, AI systems generate new forms of hidden work—from data annotators in the Global South to technicians maintaining vital infrastructure in the North. This creates what they term an "extraction machine" that reconfigures labor in ways that intensify value extraction while concentrating power in those who control these systems.

The implications for class formation are profound. We are witnessing not just the diminishing of traditional industrial labor but the emergence of two distinct groups: a technical engineering class essential to maintaining automated production systems, and a new intellectual proletariat employed in AI production. Their structural position varies significantly between core and periphery countries. In the capitalist West, technical workers occupy a contradictory position—privileged but alienated, essential to production but subordinated to corporate priorities. In peripheral countries, as Muldoon et al. (2024) document, they form a super-exploited proletariat with rising class consciousness.

This structural position gains particular significance in the context of semi-core competition and the philosophical incommensurability between Western and Chinese approaches. Technical workers operate at the intersection of competing infrastructural systems and incompatible organizing principles, from maintaining data centers in Iceland to developing AI systems in China. Their expertise enables them to either facilitate or resist the creation of alternative systems, while their experience often spans both Western and semi-core institutions. This places them in a potentially pivotal position to influence which institutional frameworks become dominant and, crucially, to understand and potentially mediate between fundamentally different ways of conceptualizing technological development and its social purposes.

Experiencing Different Dialectical Logics

The dialectical difference has practical implications for how technical work is organized and understood, which technical workers experience directly. In Western contexts, technical development often proceeds through competitive winner-takes-all dynamics reflecting the *either/or-logic*—platforms must dominate or perish, standards must achieve universal adoption or fail, firms must maximize shareholder value or face replacement. The tech industry mantra of "move fast and break things" epitomizes this approach: rapid iteration toward a single optimal solution, with alternatives eliminated through market competition.

In Chinese contexts, while competition certainly exists, there is greater acceptance of parallel standards, hybrid systems, and long-term state coordination of ostensibly competing firms—reflecting the *and-logic* of preserving productive tensions. As Mahoney (2024) argues, Chinese policymaking operates through the combination of contradictions rather than their annihilation — it is through holding contradictions in productive tension that the dialectic operates, not through the victory of one contradiction over another. This manifests practically in Chinese tech ecosystems where multiple payment systems coexist (Alipay, WeChat Pay, UnionPay), multiple social media platforms serve different functions without one dominating, and state coordination enables competing firms to cooperate on infrastructure development.

Technical workers moving between these contexts gain experiential understanding of how different philosophical frameworks shape technological development itself. A software engineer who has worked in Silicon Valley's "move fast and break things" culture and then in a Chinese tech firm coordinating with state development plans experiences not just different management styles but fundamentally different logics of innovation and competition. This experiential knowledge—grounded in daily problem-solving rather than abstract theory—may enable forms of mediation between incommensurable frameworks that purely political or philosophical dialogue cannot achieve.

Strategic Position in Competing Systems

Moreover, technical workers' strategic position extends beyond their individual mobility. As Muldoon et al. (2024) document, they are essential to the functioning of the global AI "extraction machine"—from the hyperscale data centers consuming enormous energy to the distributed networks of data annotation labor in the Global South. This infrastructure is increasingly contested terrain. China has built parallel infrastructure to rival Western systems, creating what Muldoon et al. describe as a return "to a much more antagonistic relationship between the United States and China where—much like in the Cold War—technology is seen as a marker of civilisational achievement, a method of developing advanced weaponry and a means to gain economic competitive advantage" (Muldoon et al. 2024:178).

Technical workers' collective power derives from this strategic position. The system cannot function without them, yet they increasingly work across the geopolitical divide, maintaining infrastructure for both Western and Chinese systems, developing algorithms that serve competing centers of power, and training AI systems using data from multiple contexts. This positions them to potentially facilitate cooperation, enforce incompatibility, or develop hybrid approaches that bridge philosophical differences through practical necessity.

Forms of Resistance and Organization

Recent events demonstrate how this structural position can translate into effective resistance. The Google Maven case provides a crucial example. When 5,000 workers signed an open letter demanding Google withdraw from this military AI project, they demonstrated both their collective power and ability to connect technical expertise with broader ethical concerns. As one campaign leader noted, the action went beyond a single contract to raise fundamental questions about technology's social purpose (Muldoon et al. 2024:156). The campaign's success in forcing Google to abandon the contract showed how organized technical workers could effectively challenge the military-industrial complex.

A more recent and in some respects more consequential example emerged in February 2026, when Anthropic refused Pentagon demands to allow its AI model Claude to be used for fully autonomous weapons systems and domestic mass surveillance. When the Trump administration responded by banning all federal agencies from using Anthropic's products — designating the company a "supply chain risk" ordinarily reserved for foreign adversaries — the company held its position. CEO Dario Amodei stated that "we cannot in good conscience accede to their request," explicitly rejecting the binary choice the Pentagon demanded (NPR 2026; CNN 2026). Significantly, technical workers within Anthropic publicly aligned themselves with this stance, with alignment researcher Trenton Bricken writing that the episode demonstrated why "Anthropic's founding was a crucial fork in the timeline" (CNN 2026). Unlike the Maven case, where worker pressure forced corporate withdrawal, here corporate leadership held an ethical line with worker support — suggesting an evolving relationship between technical workers and institutional leadership around questions of military AI deployment. The competitive pressures are equally revealing: OpenAI and Google, facing the same choice, removed all restrictions on military use, demonstrating precisely the winner-takes-all logic of capitalism that makes sustained ethical resistance structurally difficult and requires broader class consciousness.

However, the forms of resistance and organization differ significantly between Western and Chinese contexts, reflecting not merely different political conditions but different philosophical frameworks. While Western technical workers engage in direct confrontation with corporate and state power—often framed through individual rights and ethical objections rooted in liberal principles—Chinese technical workers have developed distinctive forms of political consciousness.

Ruguanism and Dialectical Engagement

As Yao (2024) documents, Chinese technical workers have created their own theoretical framework known as "Ruguanism" (入关学 or "Entry Theory") in online communities. This framework, finding strongest support among technical workers and STEM professionals on

platforms like Zhihu (知乎), reflects a uniquely Chinese understanding of power transitions that differs from Western theories of hegemonic change. Where Western frameworks often conceive of resistance as refusal or exit—opting out of complicity, withdrawing labor, or building alternative systems outside existing power structures—Chinese frameworks emphasize dialectical engagement: entering into contradictions to transform them from within.

This difference reflects the underlying dialectical distinction. Western resistance operating through *either/or-logic* tends toward binary choices: either comply with or refuse unjust demands, either work within the system or reject it entirely, either accept corporate priorities or organize against them. Chinese resistance operating through *and-logic* seeks to preserve the contradiction while shifting its terms: remain within the system while pushing its development in different directions, accept certain priorities while advocating for others, engage with state projects while contesting their specific implementations.

This is not merely tactical difference but reflects fundamentally different understandings of how change occurs. As Mahoney (2024) emphasizes, in Chinese dialectical thinking "the struggle is always an and...it's always an and," whereas in Western/Soviet thinking "Lenin's concept of the unity of opposites is always an *either/or* formation...there's always going to be an antagonism and...it's always going to be sort of a zero sum game." Chinese technical workers' political consciousness reflects this understanding—they see themselves as participating in and shaping a state-directed project of national development rather than opposing it wholesale.

Different Organizational Forms

This variation in forms of resistance reflects broader systemic differences. In Western capitalism, workers remain in an alienated and antagonistic position vis-à-vis their employers and the state, with resistance typically taking oppositional forms: strikes, walkouts, petitions demanding corporate withdrawal from projects, or public denunciations. The Google Maven campaign exemplifies this approach—confrontational, public, framed through ethical refusal, and ultimately threatening corporate reputation and employee retention (Muldoon et al. 2024).

In China, technical workers are more integrated into a state-directed project of national development and technological advancement, with political consciousness oriented toward participating in and shaping that project rather than opposing it (Mahoney 2024; Muldoon et al. 2024). The case of Huawei is instructive here. As Feng and Li (2020) document in their analysis of Huawei's employee ownership structure, the company is owned collectively by approximately 90,000 employees — nearly half its total workforce and a majority of its key technologists — through an Employee Stock Ownership Plan that entitles shareholders to dividends and gives them a collective stake in the company's direction. This makes Huawei one of the largest worker-owned enterprises in the world, a fact that sits in productive tension with its simultaneous role as a state-

directed national champion. As Pearson, Rithmire and Tsai (2022) demonstrate, Huawei exemplifies Chinese party-state capitalism's characteristic blurring of the distinction between collective, private and state capital — the company has received substantial state financial support and explicitly advances national objectives in 5G infrastructure linked to China's technological sovereignty project, while Hawes (2020) shows how its ownership structure evolved through a series of adaptive mechanisms within China's broader state-corporate ecosystem rather than through simple top-down direction. The result is an institutional form that defies either/or categorization — neither purely private capitalist firm nor state-owned enterprise, neither conventional workers' cooperative nor instrument of state power, but a genuinely hybrid form that preserves these contradictions in productive tension. For Huawei's technical workers, this creates a qualitatively different relationship to their work than that experienced by their counterparts in Western firms: their technical expertise is understood not merely as labor sold to a corporate employer but as a contribution to both their own collective enterprise and to China's challenge to Western technological dominance — an *and* rather than an *or*.

As Mahoney (2024) explains, "class struggle as a tactic rhetorically and practically as a tactic for establishing and consolidating party rule" transformed after the Cultural Revolution into "elevating the class struggle to the international level." Contemporary Chinese technical workers understand themselves as participants in this international class struggle—contributing to China's technological development as a means of challenging Western hegemony and creating alternatives for the Global South. Their resistance takes the form of pushing for particular directions within this project rather than rejecting the project itself.

Shared Strategic Position

However, both groups of technical workers also have respective strategic positions in relation to crucial infrastructure. As Muldoon et al. note, "We are returning to a much more antagonistic relationship between the United States and China where—much like in the Cold War—technology is seen as a marker of civilisational achievement, a method of developing advanced weaponry and a means to gain economic competitive advantage" (Muldoon et al. 2024:178). This creates a situation where technical workers in both contexts confront similar questions about the social purposes of their work, even if they frame these questions differently and pursue different forms of action.

Crucially, technical workers in both contexts are positioned to understand that these are not merely competing national projects but expressions of fundamentally different organizing principles. The question facing them is not simply which side to support but which dialectical logic—*either/or* or *and*—will structure the technological infrastructure of the emerging world system. A Western technical worker who has experienced Chinese tech ecosystems, or a Chinese

technical worker who has worked in Silicon Valley, possesses experiential knowledge of both logics that purely national political actors lack.

This experiential knowledge creates potential for what might be termed "practical mediation"—the development of hybrid approaches or mutual understanding through concrete problem-solving rather than abstract philosophical reconciliation. Technical workers collaborating across the geopolitical divide on specific projects (even as their governments and corporations compete) may discover ways of integrating different approaches that political or philosophical dialogue alone cannot achieve. They might develop technical standards that accommodate both winner-takes-all and parallel-systems approaches, or organizational forms that preserve productive tensions rather than forcing resolution.

Implications for Systemic Transformation

The convergence of these dynamics—technical workers' strategic position, different forms of resistance rooted in incompatible philosophical frameworks, and the semi-core challenge to Western hegemony—creates unique possibilities for systemic transformation. Recent events demonstrate this potential. We have seen significant opposition within the technical-bureaucratic apparatus of the US state—from State Department resignations over Gaza policy to intelligence community leaks exposing deceptions about Ukraine (Luscombe 2024). These actions suggest growing awareness among technical workers that their skills and knowledge should not be deployed for maintaining failing hegemony through force.

The significance of these actions extends beyond their immediate impact. They demonstrate that technical workers are beginning to connect their specific positions to broader geopolitical struggles and to question the social purposes to which their expertise is directed. When State Department officials resign over Gaza or intelligence analysts leak documents about Ukraine, they are implicitly rejecting the *either/or* choice that hegemonic logic demands: either support all state actions or be branded disloyal. Instead, they assert an *and* position: loyal to the state's legitimate interests while refusing complicity in specific policies they judge unjust.

However, realizing this transformative potential requires overcoming significant challenges. Historical examples show how capital has successfully divided and co-opted strategically placed workers. Technical workers' potential for resistance cannot be taken for granted but must be actively developed through political organization and alliance-building. This requires connecting their specific grievances and powers to broader movements for social transformation.

Building Solidarity Across Philosophical Divides

The key challenge becomes building solidarity across the broader ecosystem of AI labor while resisting both technocratic elitism and reactionary populism. As demonstrated by the wildcat strikes that spontaneously erupted across the Amazon global empire in 2022, workers remain essential to the functioning of the automated 'extraction machine' (Muldoon et al. 2024). This suggests that technical workers' potential for progressive transformation lies not just in their specialized knowledge but in their ability to build connections with the broader working class—warehouse workers, delivery drivers, data annotators, content moderators, and others whose labor sustains the AI systems that technical workers design and maintain.

However, building such solidarity across philosophical divides poses unique challenges. How do Western technical workers conceiving of resistance as oppositional refusal build common cause with Chinese technical workers conceiving of resistance as dialectical engagement? How do workers operating within *either/or-logic* collaborate with workers operating within *and-logic*? The experiential knowledge that technical workers gain from working across both systems may prove crucial here—not as synthesis or reconciliation of incompatible frameworks but as practical mediation enabling cooperation despite philosophical incommensurability.

This suggests a role for technical workers that extends beyond their immediate labor struggles. By virtue of their position spanning competing systems and incommensurable frameworks, they may facilitate mutual comprehension and practical cooperation that purely political dialogue cannot achieve. A technical worker who has experienced both Silicon Valley's winner-takes-all competition and Chinese tech ecosystems' parallel standards can explain to colleagues in each context how the other operates—not to convert them but to enable functional cooperation on specific projects despite different underlying logics.

Avoiding Technocratic Elitism

At the same time, technical workers must resist the temptation toward technocratic elitism—the notion that their specialized knowledge grants them privileged insight into social questions or positions them as natural leaders of progressive movements. As Muldoon et al. (2024) document, the AI extraction machine depends on vast ecosystems of hidden labor, from data annotators in Kenya earning poverty wages to content moderators in the Philippines traumatized by exposure to violent imagery. Technical workers designing AI systems or maintaining infrastructure occupy privileged positions within this ecosystem, and their resistance will only contribute to progressive transformation if it connects to and supports the struggles of these more exploited workers.

This requires recognizing that different positions within the AI labor ecosystem generate different forms of consciousness and different potentials for resistance. The highly compensated engineer in Silicon Valley confronts different contradictions than the data annotator in Nairobi or

the content moderator in Manila. Building solidarity requires not assuming that technical workers' perspectives or priorities should dominate but rather listening to and amplifying the struggles of the most exploited workers in the ecosystem.

Moreover, as the philosophical analysis reveals, technical workers must avoid imposing either Western or Chinese frameworks as universal solutions. The recognition that Chinese Marxism works precisely because of its integration with Chinese epistemological traditions (Mahoney 2024) suggests that progressive transformation cannot proceed through mechanical application of any single model. Instead, it requires what might be termed "dialectical pluralism"—preserving multiple approaches to social transformation while building practical cooperation across difference.

Connecting to Environmental and Peace Movements

The convergence of these trends—technological transformation, new class formation, declining Western hegemony, rising alternative centers operating from different philosophical premises—creates conditions for potential progressive change. Several factors support this possibility:

- Technical workers' strategic position in production and state systems
- Growing environmental consciousness that transcends traditional class boundaries
- Alternative centers of development and knowledge production operating from different organizing principles
- Popular rejection of militarism and colonial legacies
- New forms of information sharing and resistance through digital networks
- Technical workers' potential to mediate between incommensurable worldviews through practical engagement

The environmental dimension deserves particular emphasis. As climate change accelerates and its catastrophic impacts become undeniable, technical workers increasingly confront the contradiction between their expertise in developing potentially sustainable technologies and the actual deployment of these technologies in service of continued accumulation and environmental destruction. This creates opportunities for alliance between technical workers and environmental movements—both groups recognize that current systems are driving toward ecological collapse and that radical transformation is necessary.

Significantly, this environmental consciousness can bridge philosophical divides. Both Western and Chinese technical workers confront ecological crisis, both recognize that technological development must be redirected toward sustainability, and both understand that current power structures obstruct necessary changes. While they may conceptualize solutions differently (Western frameworks emphasizing systemic replacement, Chinese frameworks emphasizing dialectical transformation), they share recognition of the urgency and magnitude of

the challenge. This shared recognition may enable practical cooperation despite philosophical incommensurability.

Similarly, growing opposition to militarism and imperial violence creates opportunities for alliance across national and philosophical boundaries. As conflicts in Ukraine and the Middle East demonstrate, the catastrophic human costs of great power competition and US efforts to maintain hegemony through force, technical workers in both Western and Chinese contexts confront questions about complicity. Chinese technical workers' framework of "Ruguanism" explicitly engages with questions of imperialism and China's role in challenging Western hegemony (Yao 2024), while Western technical workers increasingly question whether their expertise should serve military projects (as the Google Maven and Anthropic cases demonstrate) (Muldoon et al. 2024).

The key challenge becomes building bridges between these different forms of resistance—connecting technical workers' power with broader social movements, linking environmental consciousness to structural critique, facilitating understanding between fundamentally different dialectical frameworks, and creating institutional bases for alternative futures that preserve rather than resolve productive contradictions.

Conclusion: Beyond the Interregnum

As Boron argued in 1994, the construction of a stable post-hegemonic order requires cooperation not just among great powers but between them and the Global South (Boron 1994:220). This article has argued that technical workers must play a crucial role in this transformation, not through any technological inevitability, but because their position in modern production systems gives them significant potential power if collectively organized and because their experience spanning incommensurable philosophical frameworks uniquely positions them to facilitate mutual comprehension without forcing false synthesis.

Understanding the philosophical distinctiveness of Chinese Marxism—its roots in yin-yang dialectics and the unity of opposites—reveals that the semi-core challenge represents more than alternative policies or institutions. It represents an alternative epistemology, a different way of conceptualizing order, contradiction, and progress (Mahoney 2024; Mao 1937). The *either/or*-logic that has structured Western hegemony—demanding universal conformity to a single model—is being challenged by an *and*-logic that seeks to preserve diversity and productive tension.

This suggests the possibility of finally realizing a viable form of socialism perhaps as it was envisaged by Marx and Engels—where advanced technology is collectively controlled and directed toward human development and social good, managed democratically by those who understand it but serving humanity (Marx 1973). However, the Chinese experience suggests this cannot be achieved through mechanical application of Western Marxist frameworks. It requires

recognizing that different cultural and philosophical traditions may offer distinct pathways toward similar emancipatory goals—that there may be multiple dialectical routes to socialism rather than a single universal path.

Thus, while the current interregnum produces many "morbid symptoms" (Gramsci 1971:276), it also creates openings for such a fundamental transformation toward a more sustainable and equitable world order. The question is whether this new order will force universal conformity through domination (either in Western or Chinese variants) or preserve genuine diversity through dialectical integration. As Demirel (2024) identifies, three outcomes remain possible: a China-centered capitalist world-system, a socialist world-system, or an anarchic world-system. The philosophical analysis suggests a fourth possibility: a genuinely pluralist world-system that preserves multiple dialectical frameworks in productive tension rather than resolving them through the dominance of either Western or Chinese models.

However, we must be clear-eyed about the challenges. Historical experience shows that ruling classes never surrender power without resistance, eventually violent. The strategic position of technical workers creates possibilities for limiting such violence, but realizing this potential requires overcoming significant obstacles. Capital has repeatedly demonstrated its ability to divide workers, co-opt resistance, and maintain control through a combination of coercion and consent. Moreover, philosophical incommensurability poses genuine challenges—building solidarity across Western and Chinese contexts requires more than good intentions when participants literally think through different dialectical logics.

The challenge of philosophical incommensurability should not be underestimated. As Mahoney's (2024) analysis reveals, the difference between *either/or-* and *and-logic* is not superficial but grounded in linguistic structures, millennia of philosophical development, and fundamentally different ways of understanding how change occurs. Western Marxists trained in Hegelian dialectics through the lens of Aristotelian logic may struggle to comprehend Chinese dialectics rooted in yin-yang thinking, just as Chinese Marxists may find Western insistence on resolving contradictions rather than preserving them mystifying. This is not merely cultural difference but epistemological incommensurability—different frameworks for making sense of the world that may not be mutually translatable.

Yet the practical necessity of cooperation in face of shared threats—ecological collapse, nuclear war, technological unemployment—may force development of working accommodations despite philosophical incomprehension. Technical workers engaged in concrete problem-solving may discover that they can coordinate effectively on specific projects even while operating from incompatible theoretical frameworks. This pragmatic cooperation, grounded in shared material interests rather than philosophical agreement, may prove more durable than attempts at theoretical synthesis or conversion.

The key becomes recognizing and acting upon these possibilities while resisting both technocratic elitism and reactionary populism. The challenge is to build coalitions between technical workers, environmental movements, peace activists, and others working toward systemic change across cultural and philosophical divides. This requires developing class consciousness among technical workers while connecting their specific grievances and powers to broader movements for social transformation. It also requires humility—recognizing that Western Marxists cannot simply export their frameworks to Chinese contexts, nor can Chinese approaches be mechanically transplanted westward. Instead, both must learn from each other while preserving their distinctive approaches, seeking practical cooperation rather than theoretical unity.

In a pessimistic embrace of the *or-logic*, Rosa Luxemburg posed the choice: "Socialism or Barbarism" (Luxemburg 1919) and our current moment makes this stark alternative newly apposite. As this article has explained, the depth of our current crisis is grave, but combined with the astounding new technological capabilities and a growing consciousness of shared human interests, there is nonetheless an unprecedented opportunity for progressive transformation. The emergence of the semi-core operating from alternative philosophical premises demonstrates that Western hegemonic logic is neither inevitable nor universal. The Chinese experience of raising 800 million people out of poverty while maintaining sovereignty and avoiding the "dark path" of imperialism, slavery, and genocide that characterized Western development (Mahoney 2024; Muldoon et al. 2024) shows that an alternative development path is possible. Yet these opportunities can only be realized through conscious organization and struggle that respects philosophical diversity while building practical solidarity.

Boron's early recognition that countries of the Global South must be "ready to assume these epoch-making challenges with imagination and responsibility" (Boron 1994:220) takes on new relevance in our current moment. The emergence of alternative centers of power and development, combined with the potential power of organized technical workers and growing global consciousness, creates possibilities for fundamental social transformation, not as an automatic process, but as a potential to be realized through collective human action that preserves rather than resolves productive contradictions.

The transformation of labor through AI systems creates both new forms of exploitation and new possibilities for resistance. Technical workers' strategic position at the intersection of competing infrastructural systems and incommensurable philosophical frameworks, combined with their potential to build solidarity with the broader ecosystem of AI labor, makes them potentially crucial actors in determining which of Demirel's three (or possibly four) possible outcomes emerges from the current interregnum (Demirel 2024). Their unique capacity to understand and mediate between *either/or-* and *and-logics* through concrete technical practice may

prove decisive in whether the post-hegemonic order preserves genuine diversity or imposes new uniformity.

The task before us, then, is to develop the organizational forms and political strategies that can unite technical workers' potential power with broader movements for social transformation while respecting philosophical differences and building practical bridges across incommensurable frameworks. Only through such conscious organization and struggle, grounded in material conditions but open to multiple dialectical pathways, can we hope to guide the current interregnum toward a progressive rather than catastrophic resolution. The choice may remain Luxemburg's: socialism *or* barbarism, but the pathway may be 'socialism *and* barbarism' at least for a while.

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Acknowledgements: Thanks to JWSR editors and the reviewers for their useful and important suggestions.

Disclosure Statement: Authors have no conflict of interests upon submission of the article to the journal.

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Migration as a Prelude to Hegemony

An Integrated Comparison of Migration Processes in the Early Modern Dutch State and the United States

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Abstract

The purpose of this article is to discuss the role of migration processes to changes in the world-system. We highlight the significance of these processes and their impact through a comparative historical perspective. By using an approach based on an integrated comparison, two cases are compared: the rise of the early modern Dutch state to hegemony and the corresponding rise to hegemony by the United States in the twentieth century. In presenting secondary sources on the two cases, we argue that neither expansion had been possible without a significant inflow of labor and skills carried by migrants. There seems to be a strong correlation between migration and changes in the world-system in general and the rise to hegemonic status in particular. By analyzing long-term processes like migration and its role in energizing and stimulating changes in the world-system, we argue, in line with the new economics of migration, that previous economic explanations to the rise of hegemony can be qualified. We also argue that the use of integrated comparison in the way we tentatively do in this paper can be fruitful in better understanding historical processes and their impact on power relations and economic relations in the world-system.

Keywords: Migration, Labor, World-Systems Analysis, Hegemonic Transitions, Integrated Comparison



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While migration is often viewed as a defining feature of the modern era, Patrick Manning (2013) insightfully reminds us that it has long been “a central aspect of all human history.” From the earliest emergence of *Homo sapiens* in East Africa, humans have been on the move—a point emphasized by Cavalli-Sforza (1995) and Wade (2007), who argue that mobility has been intrinsic to human existence. Throughout history, migration has played a pivotal role in the diffusion of knowledge and skills, while also supplying vital labor to host societies. Moreover, it has facilitated trade and economic exchange (Harzig, Hoerder, & Gabbaccia, 2009; Eide Johnsen, 2017; Manning, 2005), positioning itself as a fundamental driver of what is now commonly referred to as globalization. At the same time, migration is often seen as depleting the countries of origin of valuable skills and expertise—a phenomenon known as “brain drain”—making international migration a double-edged sword with lasting consequences for both sending and receiving societies. Examples of how migration is an integrated aspect of human history are in abundance (Hall and Kardulias, 2010). In antiquity, the case of Athens and its openness to its *Metoikoi* (non-Athenian) population is an example of how migration has energized economic growth (Pomeroy (ed.), 2004). In Medieval times, both long- and short-distance migrations contributed to the growth of urban centers in Northern Italy (Arrighi, 2010; Rodriguez, 2023). During the Early Modern era, migration within and across states and regions played a central role in shaping the multicultural character of empires and conglomerate states of the period, (Lucassen & Lucassen 2009, pp. 347–353; Hoerder, 2002). In the same vein, historians like Dirk Hoerder have highlighted the importance of different forms of migration for the modern era, not least the transatlantic migration that involved large parts of Europe and Northern Asia (Hoerder, 2002).

Migration historians have increasingly sought to examine the systemic dimensions of international migration, incorporating both structural forces—such as global economic trends—and the role of social networks. In particular, Dirk Hoerder and Kristiane Harzig employ the concept of migration systems to theorize the interrelation between global economic processes and migratory movements. Their framework suggests that historical patterns of migration have been shaped not only by macroeconomic structures but also by individual and collective decision-making, reflecting a dynamic interplay between agency and systemic constraint. Hoerder and Harzig’s analyses of the Atlantic migration system and various European migration systems in the modern era offer compelling empirical illustrations of how migration flows have historically contributed to economic and political transformations. These examples underscore the significance of migration as a driver of change across societies and regions (Harzig & Hoerder, 2002, 2007) which raises a broader question: what role has migration played throughout history when viewed through the lens of world-systems theory?

The purpose of this article is to explore labor migration as an integral component of the world-system, emphasizing its structural and temporal significance. Our focus lies on the pre-hegemonic phase—specifically, the transitional period in which states ascend toward hegemonic status. Central to our inquiry is the methodology of integrated comparison—an approach through which we seek to understand how a general process such as migration operates across distinct historical eras within the evolving architecture of the modern world-system. Drawing on previous research,

we will compare two states across different historical periods and examine their respective trajectories toward global political and economic leadership. Our examples are the Dutch state in the seventeenth century and the United States in the late 1800s and early 1900s. Let us now turn to the topic of migration, as it has been addressed in previous analyses within the world-systems framework.

The capitalist world-system, as conceptualized by Immanuel Wallerstein (2004), is defined by a global division of labor structured around three interrelated zones: the core, the periphery, and the semi-periphery. Emerging in sixteenth-century Europe, according to Wallerstein's original account, this system gradually expanded to encompass broader regions across the globe. It laid the groundwork for enduring structures of power, social hierarchies, and cultural interactions over the subsequent 350 years. Within the context of colonialism and imperialism, the world became increasingly interconnected through early modern trade networks that institutionalized patterns of unequal exchange (Jones & Mielants, 2010).

Economists that have studied migration have criticized neoclassical explanations grounded in the assumption that labor and skills to develop a country are always in abundance through strict economic laws that regulate streams of migrants from developing to developed countries; in fact, these quite primitive models are also found in early migration research (Ravenstein). New research within the paradigm of "the new economics of migration," has concluded that migration is not simply a rational decision made by individual migrants but that individuals are embedded in social networks that have a significant impact on migration decisions of the individuals. The decision to migrate involves not only the migrant, but for example their networks of nuclear or extended family and are dependent on both demographic conditions, knowledge, access to transportation, location of other productive forces and access to reproductive resources (Jones & Mielants, 2010). Clearly, migration—long recognised as a key mechanism for the transfer of labor power and skill sets within the global economy—has been a central and enduring feature of human history. Yet, despite its global character and the use of world-systems theory as an explanatory framework for mass migration (Jones and Mielants 2010), important questions remain about how migration itself functions as a process driving transformation within the world-system. World-system scholars P. Nick Kardulias and Thomas D. Hall (2010) have, by applying a long historical perspective, shown that inequality and exploitation have been built into world-systems since states were first developed. The intensity, the mechanisms, and the directions of inequality and exploitation have changed over time, but they have, through history and long before the European dominance, been part of state-based world-systems. They argue that inequalities and exploitation are inherent and that migration as a process and a phenomenon is not a divergence, a problem or a flaw—but that it is part and parcel of the system itself. Kardulias and Hall argue that we need to apply this long-term perspective on migration and focus on its role in the development of inequality and unequal exchange. By long-term, they do not mean decades or centuries, but millennia. In fact, as far back in time as when humans spread from Africa to populate all the world. From this time scale, movement of people, and consequently migration, is normality, not an exception (Kardulias & Hall, 2010).

Rather than treating migration as a universal aspect of human experience, they situate it within specific contexts of state formation, the development of trade networks, and the power dynamics between economically differentiated zones in a hierarchical global system.

Their primary analytical focus is the global economy, within which migration is understood as a process of profound significance. This perspective, as Portes (2007:76) describes, operates at a “higher level of abstraction,” emphasizing that international migration cannot be separated from the structural inequalities embedded in global economic relations (see also Mielants 2002).

Thomas D. Hall and Christopher Chase-Dunn employ the concept of “mode of accumulation” to articulate the underlying structural logic of the capitalist world-system, encompassing production, distribution, exchange, and accumulation. They favor this term over “mode of production” to emphasize a broader analytical scope—one that extends beyond the conditions of production to include the systemic patterns through which wealth and resources are circulated and consolidated. Their focus shifts toward the institutional mechanisms that mobilize labor and sustain social reproduction across different historical contexts. In all societies, processes of reproduction and transformation are linked to the accumulation of surplus. Within the capitalist mode of accumulation, this surplus is primarily generated through commodified labor power. However, alternative forms of labor—such as unpaid or coerced labor—also persist, particularly within segments of global commodity chains. (Chase-Dunn & Hall, 1997).

Nestor Rodriguez has explored the processes further (2023). He highlights the significance of migration in the world system by analyzing hegemony through history. Empirically, he engages the Italian city states of the late medieval period, the Dutch state’s hegemony in the 1600s, the British Empire during the nineteenth century and the hegemony of the United States in the twentieth century. Rodriguez’s purpose is to map and analyze migration of both capital and labor on a global scale. He is primarily interested in how the four hegemonic states “expanded or strengthened capitalism in the world in their eras,” affecting development and, as he puts it, “the development of underdevelopment” imposed by colonialism in regions such as Africa, Asia, and Latin America (Rodriguez, 2023).

So, migration historians and economists have positioned migration as a central and enduring phenomenon with profound economic, social, and cultural consequences for individuals, communities, and entire societies across history. This perspective aligns closely with the *longue durée* approach to migration advanced by Kardulias and Hall (2010) and other world-systems theorists, although the latter typically adopt a broader temporal scope.

From this vantage point, migration is not only a recurring pattern observable from antiquity to the present, but also a process deeply intertwined with global economic transformations and shifts in the world-system. Both migration historians and world-systems scholars emphasize its structural significance, viewing migratory flows as both shaped by and shaping the dynamics of global capitalism and geopolitical change.

Previous research into how world-system transitions occur and how new hegemony rise to power has first and foremost dealt with economic (Chase-Dunn, C., Jorgenson, A. K., Reifer, T. E., & Lio, S. (2005). pp 233–254) and direct political and military power (Hugill, 2010).

This article further explores the work of Nestor Rodriguez (2023) and a range of other scholars that have started to explore the role of migration in the world-system and how integrated comparison as a method can contribute to that ongoing project.

In both the Dutch and American cases, the transition to hegemonic status was preceded by significant waves of immigration and internal migration. This pattern suggests that the mobilization of labor and the circulation of specialized skills played a crucial role in facilitating each state's ascent to global dominance. The diachronic, integrated comparison, will emphasize labor migration of men and women, of skilled workers and of unskilled workers, of tradesmen and of farmers. We are, hence, not foremost interested in the respective temporal contexts but by the process of migration itself. We consider our two study objects to be examples and case studies on how a process (in this case migration) can be explored as one aspect of the world-system and as a driver of change.

Integrated Comparison

Historical comparison, long a cornerstone of historical inquiry, has evolved from a method focused primarily on identifying differences between historical units—be they nations, regions, or civilizations—to a more nuanced approach that also seeks out meaningful similarities. Traditionally, historians employed comparison to explore exceptionalism, such as the American or French cases. These debates often emphasized contrast, implicitly suggesting that comparison was inherently about difference. Yet, as global history has gained prominence, the comparative lens has widened to include convergences and shared developments. Historical comparison is far from monolithic; it encompasses symmetrical and asymmetrical approaches, spans cultures and epochs, and ranges from micro-level studies of families or individuals to macro-level analyses of civilizations.

The social scientist Charles Tilly developed a widely cited typology that identifies four distinct types of historical comparison, each serving a different analytical purpose. First, individualizing comparison focuses on the unique characteristics of one or two cases, aiming to understand their particularities in depth. Second, inclusive comparison examines components within a larger system—such as comparing different colonies within an empire—to explore how parts relate to the whole. Third, variation-finding comparison investigates how a general process, like urbanization or demographic transition, manifests differently across contexts, highlighting variations within a shared framework. Finally, universalizing or generalizing comparison seeks to uncover broad patterns or rules that apply across multiple cases, contributing to the formulation of general theories in historical analysis (Tilly, 1984, pp.82ff, 145ff).

Tilly's typology has inspired a generation of historians, but comparison over time is a much more complicated method than synchronous comparison between different units. Birgitta Oden believes that a particular problem in diachronous comparison has been the knowledge-theoretical contradiction between a nomothetic and idiographic tradition. Historical research has primarily focused on studying historical changes as unique events, while sociological historical research has

been focused on seeking general features in the processes of change and explaining them with corresponding changes in other countries. She saw it as an important challenge to unify and reconcile these two paradigms in a theoretically grounded, source-critical, well analyzed historical-empirical research, which puts the historical processes of change at the center. For diachronic comparisons to be meaningful, there must be structural and cultural similarities between the different periods, but also differences that make it possible to identify the mechanisms behind the variations and the causes of change. She also points out that it is important to consider the change of terms over time, which can mean that the same terms are compared but not the same concepts (Odén 1994, p.13ff).

Philip McMichael (McMichael 2000, pp. 668 ff), has criticized the traditional comparative method, which is based on a developmentalist approach. He has instead launched the method of *incorporating comparison* in historical analysis. This method has three central claims. First, comparison is not a formal external procedure in which different cases are compared as separate entities with common or contrasting patterns. Instead, the comparison is integrated into the historical survey, in which its instances are comparable because they are historically coherent and mutually dependent. Secondly, they are not based on an a priori perception of the compared entities, instead they are formed in relation to each other and in relation to the whole world-system through their mutual relationship. In other words, the whole is not taken for granted but self-forming. Third, comparisons can be conducted over space and time, separately or simultaneously. By comparing over time, chronologically separated instances of historical processes, significant for changes and continuities in the world-system, can be analyzed (McMichael, 2000). To be more concrete, the comparison in this instance will investigate the process where labor migrates and the role of migration in changes to the world-system that predates and “bleeds into” the hegemonic period.

Giovanni Arrighi uses a form of integrated comparison in *The Long 20th Century*, where he compares accumulation cycles that represent related eras in a singular historical process of capitalist expansion, which they themselves constitute and modify. He analyzes the relation between capital accumulation and state building during the last 700 years. Arrighi studies how hegemonic classes and states have developed the connections of capital, state power and geopolitics. From this perspective the shifting focus of hegemony in the world-system from Northern Italy in the late Middle Ages to the Netherlands, Great Britain and the United States is studied. (Arrighi, 2010). In this article, a comparative approach is employed to examine migration as a significant process—and a potential driver—of structural change within the world-system.

For the purposes of diachronic comparison, we are using a simple model. Labor migration, particularly from peripheral and semi-peripheral regions to core states, can be analyzed across three distinct functions. Rodriguez (2023) claims that, on a primary level, migrant workers from less-developed regions are employed as producers of goods and services, generating profits for capitalist enterprises and employers. Their primary function is to produce the commodities essential for capital accumulation and profit realization. In a secondary capacity, migrants sustain the core workforce and workplaces by filling positions concentrated in the service sector. Here,

migrant workers play a critical role in maintaining the social reproduction of both the national labor force and immigrant communities. On a tertiary level, migrant labor exists in the most precarious and uncertain conditions, often reliant on temporary or informal work opportunities. Many irregular migrants in this category face significant challenges, including the constant threat of arrest and/or deportation. Their vulnerable status “frequently relegates them to a reserve labor pool, where they accept low-wage jobs with poor working conditions that are typically avoided by domestic workers” (Rodriguez, 2023).

Although occupational titles varied significantly between the early modern Dutch Republic and nineteenth-century United States—due to historical and contextual differences—the nature of the roles and their systemic functions show notable similarities. In both cases, labor was organized around productive and reproductive work, alongside a reserve workforce that could be mobilized intermittently or seasonally to meet fluctuating economic demands.

Let us now examine the two cases selected for comparison.

Migration in the Dutch Rise to Hegemony - The Seventeenth Century

The Netherlands gradually established its hegemonic position within the world-system during the seventeenth century. Arrighi and Wallerstein pinpoint the period from 1625 to 1675 as the height of Dutch economic and military dominance. During this era, Dutch hegemony extended across Eastern Europe, Africa, Asia, the Western Atlantic, and the Caribbean (Wallerstein, 1974; Arrighi, 2010). The economic rise of the United Provinces, which began in the late 1500s, was propelled by productive efficiency in key industries such as fishing, shipbuilding, textiles, and agriculture (Wilson, 1957; Wallerstein, 1980). Each of these sectors relied, to varying extents, on migration as a critical source of labor (Rodriguez, 2023).

The main source of Dutch wealth was the dominance of the Baltic Sea trade. The Baltic Sea region was an integral part of the international economy at the beginning of the seventeenth century as the region was an important reservoir of raw materials for Western Europe in general and the Netherlands in particular. There was a European demand for grain, timber, iron, copper, and tar from the region. In turn, salted herbs, spices, sugar, textiles, wine, and other processed products were imported to countries around the Baltic Sea from the Netherlands (Arrighi, 2010).

The Netherlands gained a dominant role in the Baltic Sea partly by reducing shipping costs. This was achieved by using considerably cheaper and innovative industrial shipbuilding and cheaper raw materials such as timber from softwood instead of oak. The Dutch ships, *fluyts*, were also constructed so that they required considerably less crew, almost half compared to other countries' vessels. In fishing, innovations included the introduction of factory ships, herring buses, that combined processing and the barreling of the fish on the ships which offered the opportunity to conduct large-scale fishing far from shore for weeks at a time (Rodriguez, 2023). The Netherlands was also militarily involved in the Baltic Sea area with the aim of securing their trade through the strategically important narrow sound between Denmark and Sweden. During the first

half of the seventeenth century, the Baltic Sea could rightly be called *Mare Nederlandica*. (Arrighi, 2010 159 ff; Wallerstein, 2011 37 ff).

Shipping innovations in both the Baltic Sea, the North Sea and as far away as Northern Italy (Wallerstein, 2004; Braudel, 1997) gave the United Dutch Provinces control of important trade routes. In addition to this, the country, during its war of independence, engaged in a “reverse taxation” of the Spanish empire by looting their fleets, which carried silver from America to Europe. Amsterdam was established as a central repository for the world's trade in huge warehouses for upwards of a decade of consumption. In addition, financial institutions were established in Amsterdam which became the world's financial center with the world's first permanent stock exchange. Another important new institution behind the world domination of the Netherlands was limited liability companies with a monopoly on trade in a certain geographical area. In 1602, the Dutch East India Company was founded, whose activities were not limited to economic business activities, but also included warfare conducted to further the financial interests of the company. These wars were often aimed at competing states (Arrighi, Giovanni 2010 159 pp; Wallerstein, Immanuel 2011, 37 pp).

The Baltic Sea trade involved more than the movement of goods. Dutch specialists and businessmen were equally central, contributing both economically and culturally to the surrounding states. One example is the merchant and industrialist Louis de Geer, who among other things developed the Swedish ironmaking industry through the import of Walloon metalworking experts (Wallerstein, 2011 pp. 37). Other examples include experienced ship captains and sailors as well as trade capitalists, shipbuilders and craftsmen. Dutch out-migration was an integral part in the establishment of Dutch control over strategically important trade routes and key areas. Trade between the Baltic states and the Netherlands and out-migration of Dutch with specialized skills and capital was complemented by extensive migration to the emerging world power (Lucassen 2009, p. 371). Immigration to the Netherlands was an important precondition for continual economic growth and the country's growing trade dominance demanded, among other things, a continual influx of skills and labor. During the Netherlands' 80-year-long war of independence from Spain, the southern Spanish-dominated parts of the Netherlands suffered destruction. Consequently, the population, mainly Protestants, due to a mix of religious and socio-economic factors, fled north to the Dutch Republic. After Spanish soldiers destroyed Antwerp, large numbers of its merchants and craftsmen fled to Amsterdam, enabling the city to take over as the principal centre of world trade. In addition, Jews fled Portugal and economic and religious immigrants came from Germany, Scotland, and Scandinavia to the Netherlands. Immigrants settled mainly in cities and towns where in some cases they made up half of the population. As a result, the Netherlands took over Northern Italy's position as the most urbanized region in Europe (Maas, Willem 2013, pp 390–401).

Between the outbreak of the Dutch revolt in 1572 and 1650, thousands of Flemish from the southern part of the Netherlands settled in the newly established textile cities of Amsterdam, Leiden, and Haarlem (Janssen, 2017, pp 234ff). A large proportion of the Flemish who migrated were textile workers. Leiden, especially, developed into a key centre of the textile industry and

became the focal point of a Western European migration network of textile labourers from the 1590s to 1650 (Jan Lucassen 1987; Leo Lucassen and Boudien de Vries 2001, pp. 24–42, 28–30). The municipal government of Amsterdam enacted policies to provide housing and other inducements to skilled foreign textile workers from the southern Netherlands and other countries to revitalize the textile industries of the city after it had been invaded by the Spanish in the 1500s (Barbour 1950).

However, in many cases the migration from the southern Netherlands could, in its early stages, first go to England or Germany and only afterwards to the northern Netherlands which is why it is difficult to assess the size of this migration. We should, as previous research has, consider this migration as part of a larger European migration system with the Dutch Republic (the northern part of the Netherlands) at its center. So, during its rise to hegemonic power, immigrants came to the Netherlands from many countries in what has been called a North Sea Migration System, including Scandinavia, the Netherlands, and Western Germany (Van Lottum, Jelle-Jaap 2014, pp.182ff). Many of the immigrants came from relatively nearby regions in present-day Germany—at that time of course several smaller states. In all, hundreds of thousands of people traveled from the western and northern parts of Germany. In some Dutch cities, certain occupations even became dominated by German immigrants. In Amsterdam for example, German bakers and cobblers outnumbered their native colleagues. Female migrants from Germany found employment as maids and in other service occupations (van, Lottum, 2008).

The Dutch cities experienced large-scale migration, both from migration from abroad and from internal migration from rural areas. As a result, the Dutch Republic experienced a strong wave of urbanization in the early 1600s. Some of the immigrants that moved in simply replaced Dutch who were at the same time out-migrating, to the Baltic area and to the colonies. Much of what was going on in the growing economy was connected to maritime long-distance trade, and shipbuilding, trading, fishing, and agriculture were all focused on this. There was a strong and constant demand for skilled Dutch sailors and the consequence of this out-migration of Dutch men to transport occupations or to rural areas where new industries were established was a significant gender imbalance in some Dutch cities. Many male migrants that came from other countries could marry Dutch women, thereby taking a fast track to receiving Dutch citizenship. Female migrants, on the other hand, had a much harder time finding a suitable (native born) partner and a significant portion remained unmarried. Some Dutch historians have claimed that this fact led to an early modern welfare system that in turn attracted female rural workers to the city (van de Pol and Cuipers, 2005). In textile and other manufacturing industries, employers sought child laborers. Many orphans taken from orphanages in the United Republics and from abroad, came to work in manufacturing (Rodriguez, 2023).

Not all migrants settled in the republic for good as the early modern Dutch state was in dire need of both permanently settled and temporary migrants. Male migrants from the continent, again, mostly Germans, could, in addition to the urban trades in Dutch cities, find employment in the ever-growing Dutch fleet of trade and military vessels. The Dutch East India company presented one important job opportunity. The immigration from Denmark and Sweden was not as significant

but indicates the same pattern as the German one. The female migrants from Denmark, contemporary Norway and Sweden found employment as maids whereas the men seem to have found employment in the maritime trades as sailors and craftsmen (van, Lottum, 2008). The Scandinavian and German migration peaked during the 30-years war. Rodriguez also points to the fact that many of the sailors employed in fishing and trade were catholics from the southern part of Europe even though this was prohibited by laws (Rodriguez, 2023). Women, who made up a large part of the immigrants could, apart from becoming maids, also find seasonal employment in the cities both in the manufacturing industry and in other service work. Much—perhaps most—of women’s work was done in or for households, lodgings, inns, and workshops—as servants or as cleaners, taking in washing, nursing children or the sick, and repairing clothes. But to obtain a more “respectable job,” an immigrant woman needed contacts and recommendations. Lacking these, female immigrants would be restricted to the very lowest jobs such as turning the wheels at diamond workshops, doing odd jobs for their own kinsmen, or finding their way in the shadier parts of the informal economy or even criminality. Half of the convicted thieves in the second half of the seventeenth century in Amsterdam were women, the majority of whom were immigrants.

The position of women in the Netherlands was stronger than in other parts of Europe during the 1600s and their professional activities were encouraged (van de Pol and Cuipers, 2005). This was, with reasonable certainty, an effect of the labor demands generated by a growing economy. The abundance of available work in the growing Dutch cities might also have been a pull factor for foreign women, despite the fact that not all sectors of the labor market were open to them.

In addition to attracting large numbers of unskilled immigrant laborers, Dutch cities actively encouraged skilled migrants to settle more permanently by offering a range of incentives. These included reimbursement of relocation costs, provision of start-up capital, access to land for production, and tax relief (Lucassen, 1994, p. 151-165). However, such targeted benefits provoked criticism from native Dutch citizens, who argued that immigrants were receiving advantages denied to them. In response, municipal authorities reserved certain trades for native-born residents. For example, only Dutch citizens were permitted to engage in the fish trade and peat mongering, although most other occupations remained open to migrant men and women. Despite the controversy surrounding these policies, the strategy of subsidizing and stimulating immigration proved effective across many regions of the Dutch Republic. Urban centers expanded, and key industries such as craftsmanship, shipbuilding, and metalworking flourished. The painting tradition, rooted in the Habsburg era, also continued to develop during this period (Janssen, 2017, pp. 234ff, 240f).

From the marriage statistics it is possible to get an idea of the melting pot character of early modern Amsterdam. The civic registers inform us of names, places of birth, ages of the couples and the profession of the groom. From 1600 to 1800, 650,000 people appear in the registers: 60 percent of the grooms and 44 percent of the brides were not born in the city, and 36 percent of the grooms and 21 percent of the brides were not even born in the Dutch Republic. This tells us

something of the significance of migrated labor during the period and the role of the immigrants in the United Republics (van de Pol and Cuipers, 2005).

As previously stated, the Dutch Republic took the lead in urbanization from Northern Italy and the degree of urbanization is also part of the larger migration patterns. Amsterdam's population grew from 50,000 in 1610 to more than 200,000 in the mid 1600s. Already in the first half of the seventeenth century it was the third largest city in early modern Europe. However, despite urbanization, as Rodriguez points out, rural sectors also demanded workers in the thousands to carry out large projects of land reclamation and peat production (Rodriguez, 2023).

The out-migration of capital, specialized labor, and farmers was significant and consisted of Dutch trade company personnel such as tradesmen, officers, and soldiers. Non-Company immigrants consisted of merchants, sugar planters, manual laborers, retired soldiers, and artisans (Rodriguez, 2023). These groups travelled to overseas colonies on the African coast, Southeastern Asia, the Caribbean, and Brazil. These colonialist enterprises had an economic significance far greater than the number of Dutch migrants involved. Dutch colonialism also brought forced migration of slaves from the African continent to Dutch plantation enterprises and internal migration of indigenous people in the colonies. These migrations were sometimes forced but could also be a voluntary flight from colonial oppression (Rodriguez, 2023).

Rodriguez follows Wallerstein in his periodization of the Dutch rise to hegemony and its decline. He sets the ascending of hegemony to 1575–1590 and the decline to 1650–1672. These stages are difficult to uphold but offer a time frame for how to understand the migration patterns (Rodriguez, 2023). The years of ascending hegemony, 1575–1590, involved the expansion of Dutch industries such as cloth production, land reclamation, foreign trade, and so forth. Declining hegemony in the post-1650 period involved the stagnation and decline of many of these industries and of population growth in urban areas (de Vries, J., & van der Woude, A. (1997).

So, to sum up, labor migration and the migration of capital and trade, carried by the businessmen and tradesmen, was intimately connected to the rise of Dutch economic and political power as it offered a steady flow of laborers and craftsmen into different parts of the developing economy both carrying out reproductive and productive work. Immigrants were not least important to the maritime sector and a steady stream of migrants, capital, and small businesses energized the coastal regions of the Dutch sphere. The cities were also dependent on a steady influx of low-skilled female service workers in different domestic trades. Exact numbers on migrants are difficult to assess as practically no censuses have been preserved from this time. However, overarching trends seem clear. Jelle van Lottun has in his research talked about a North Sea migration system that centers on the expansion of the Dutch economy in the seventeenth century. So, the Netherlands constitute an expanding core in the world-system, that depended on migration to keep expanding its economy during the late 1500s and early 1600s. At the same time, other areas of Europe, except for England, constituted a periphery that was drained of resources by out-

migration (van, Lottum 2008, p.54). The most striking example being the Habsburg-controlled areas of contemporary Netherlands and the western part of contemporary Germany.

In conclusion, the large-scale immigration to the Dutch Republic—initially spurred by the war of independence from the Habsburg Empire—transformed the region into a central hub within contemporary European migration networks. This influx of labor and expertise not only met the demands of a rapidly expanding economy, but also actively fueled further growth, as the United Provinces secured the human capital necessary for sustained development. Immigration played a crucial role not only in internal expansion but also in the Republic's colonial ventures beyond its borders, making it a key driver of both domestic prosperity and global ambition.

Migration and the Rise of U.S. Hegemony: A Nineteenth and Twentieth Century Perspective

After the decline of the Netherlands from the eighteenth century, the United Kingdom took over the dominant economic role in the world-system (Arrighi, 2010). The British hegemony, based as it was on the breakthrough of industrial capitalism, in the global economy, in turn, began to lose power from the late 1800s and was exposed to growing competition from other core states during the late nineteenth century. In the conventional reading, the main challenge to British hegemony came from Germany and erupted in the form of two British/American-German wars (WW1 and WW2). WW1 and WW2 have been regarded as the moment when the United States secured its future hegemonic position by preventing Germany from taking Britain's place (Flint & Taylor, 2007. p.57).

Donald Meinig shows that the emergence of American hegemony passed through several stages. Through the late 1800s the United States preferred continental isolation, which was a phase where the United States was not fully integrated within the world-system under British leadership. This changed in the 1890s when the United States switched to "hemispheric defense" and a bid on Empire through efforts in controlling the Caribbean, parts of Latin America, and some areas of the Pacific (Meinig, Donald, 1993, 1994). In contrast, Peter Hugill claims that the United States was involved in the struggle for hegemony in the world-system already in 1861, in other words, at the start of the American Civil War, as it initiated a challenge to British leadership. No war ever erupted at that time as direct confrontation between fleets was avoided, but the economic warfare was intense. Not least cotton took center stage in this economic conflict (Hugill, 2010). Either way, British hegemony in the global economy began to lose power from the late part of the 1800s and is, from that time, exposed to growing competition from other centers in the world-system.

Beverly Silver and Giovanni Arrighi compare the hegemonic position of England in the "Long 18th century" to the hegemony of the United States during the post war period of the twentieth century (Silver & Arrighi 2003, pp. 325-355). The distinction they draw concerns three related but analytically separate processes: the establishment of world domination, the strategies employed to maintain it, and the mechanisms through which hegemony was ultimately secured. They argue, in line with Meinig, that the United States of the nineteenth century was not generally to be considered a full part of the system of "Pax Britannica." Rather, the United States, being a

country the size of a continent, developed its own road to hegemonic status in the world-system, primarily based on a growing domestic economy that had outgrown the strongest European economies in both Germany and the British Empire at the entry of the 1900s. It could, however, be argued that the American economic growth was a direct consequence of the inclusion of Indian land and hence, in itself, a colonial project rather than merely a growth of the national economy. So, parallel to the British development of hegemonic power through their gradual inclusion of India and large parts of Africa in their Empire, the United States expanded over the American continent. The rise of American economic power was inseparable from the sustained influx of European immigrants who actively participated in the settler-colonial project. Much like European colonialism, this expansion relied on the conquest of Indigenous lands (Fenelon, 2023). This project of outright invasion extended beyond the territories controlled by Indigenous tribes, encompassing the subjugation of populations in the Pacific, the Caribbean, and parts of Central America from the late nineteenth century onward (Rodriguez, 2023).

The American hegemony, which was finally established by the terminal crisis of British hegemony in the early 1930s and the world wars where the United States contributed to destroying the economy of its competition, differed from the British in several ways. Arrighi (2010) contrasts the U.S. and British economic models that fueled their global dominance, describing them as corporate capitalism and free-trade imperialism, respectively. While Britain's model heightened intercapitalist competition, U.S. corporate capitalism aimed to reduce market instability by minimizing competition. On a global scale, the shift of hegemons involved several significant differences. First, by the fact that American hegemony was resting on a publicly regulated world currency system. Second, through a contractually regulated world economy, and third, through the internalization of world trade in large transnational companies.

Of special importance for American hegemony was the establishment of the latter, a company model characterized by vertically integrated, bureaucratically managed companies, which were first established nationally, in the form of railroad companies, steel companies, lumber companies, agro business, and so forth, which then continued to expand internationally (Arrighi, 2010). Throughout the 1920s, productivity grew faster in the United States, increasing the competitiveness of American companies. At the same time as the global economic system became increasingly dependent on the dollar, American investments soared. At the end of the 1920s, U.S. loans and direct investment abroad were equivalent to \$8 billion. This process of American capitalist expansion was temporarily interrupted by the 1930s crisis and protectionist reactions (Silver & Arrighi 2003, pp. 325-355).

The explosive expansion of the American economy from the late nineteenth century and the establishment of refined forms of exploitation of resources on the American continent demanded an increasingly large labor force. During the second half of the nineteenth century, the United States received growing numbers of immigrants and in the period 1820-1930, more than 36 million people immigrated from Europe; added to this were significant numbers from Asia. According to Leslie Page Moch, immigration in the period between 1840–1899 amounted to 18,008,151. Another 18,845,278 immigrants arrived between 1900 and 1930. Europe accounted for 85% of

U.S. immigration from 1840 to 1929. Women formed 40% or slightly more of the European immigrant groups arriving in the United States (Moch 2003). The transatlantic migration flows gradually shifted from Northern and Central Europe to the Eastern and Southern parts of the continent and, hence, followed patterns of structural change in Europe (Manning 2005, pp.150-155). The migration itself gives us hints on how the world-system changed during the nineteenth century and how economic expansion and decline is mirrored by transnational migration flows.

As Dirk Hoerder claims, several transnational migration systems were tied together and formed an integrated hemispheric system in the nineteenth century that extended, “from Russia’s Jewish Pale settlements to Chicago, New Orleans, Buenos Aires and beyond.” This “mega-migration” system was characterized by movements of men and women from increasingly impoverished classes of Europe and Asia towards new emerging core areas of the world economy. This “hemispheric” migration system also involved millions of internal migrants in Europe that gravitated to industrializing core areas of the continent and an ongoing urbanization in core areas in the United States. European peripheries provided labor for the European core areas but, to an even larger extent, fueled economic expansion in the United States in a process where that country outgrew the European empires (Hoerder 2002, pp.331ff). Parallel to this immigration there were also extensive investments of European capital in the United States. During World War I, however, these resources were depleted in the costly warfare in Europe and at the end of the war, investments over the Atlantic changed in the reverse direction. (Silver & Arrighi 2003).

The pattern of European migration to the United States is well known. Many migrants were from a new class of rural poor while others were artisans and other specialists. First, the migrants came from peripheries on the British Isles and Germany, primarily from rural areas under economic pressure. In stages, migration then expanded to include peripheries in Northern, Eastern and Southern Europe. Migration that included Asia, both North and South, was also frequent and Chinese labor migration was intense up to 1883 when the so-called “Chinese Exclusion Act” was enforced (Hoerder 2002, pp398ff).

At the start of the American Civil War, three distinct economic zones had been established in the United States, that were in various degrees connected to and affected by changes in global labor and economic regimes. An industrialized zone in the Northeast, an expansion zone in the West that integrated new farmland and areas for the extraction of raw material and one zone in the South characterized by large plantations run with slave labor producing for the world economy. After the Civil War, the American industrialized core area extended from the Atlantic coast to Chicago and St. Louis. The Civil War changed political and economic power relations as the southern plantation owning elite as a political power group was significantly weakened. What was left of the political establishment were the industrialists of the Northeast. This group was essentially controlling the American economy after the Civil War. It also controlled the streams of migrants arriving from Europe and Asia. From 1871 to 1920, the United States received 20 million immigrants net which became an important part of the workforce both in the industrial economy of the Northeast and as small farmers and workers in the westward expansion. The myth of the pioneering farmer was, and still to some degree is, upheld among the European ethnics that became

part of the expanding American national project, but the fact is that most migrants ended up in tightly knit ethnic networks in the cities or became casual laborers in the rural western part of the country. By the turn of the nineteenth century, commercial agriculture had already transformed American agriculture, and many small farmers had abandoned farming and moved to industrial and service work in the cities. The European immigrant farmer was, however, a prerequisite for the American expansion. The role of these pioneers was never solely connected to farm work as farms brought with them job opportunities for farm laborers, workers in transport, and in industry. The expansion of commercial farming in the West generated agro-business such as the milling industry in Minneapolis and the slaughterhouses in Chicago, which, with time, produced for domestic and international markets. This agro-business became a backbone in a diversifying western economy based on immigrant labor during the first part of the twentieth century.

The scholarship on migrant labor in the late nineteenth and early twentieth centuries is extensive. It includes, for example, Rudolph Vecoli's seminal studies of Italian workers in Chicago (1964); investigations of immigrant labor on the killing floors of the American meatpacking industry (Barrett, 1990); analyses of Eastern European miners (Betten, 1967; Alanen, 1982); and classic accounts of Eastern European workers in steel production (Brody, 1960; Brody, 1993). These kinds of studies, especially micro historical and local studies, are plentiful. Previous research also emphasizes the role of female immigrants in the expansion of the American economy. One example is Lars Olsson's study of The Munsingwear Knitting Company in Minneapolis which depended on a small army of immigrant women from all over Europe during the late 1910s (Olsson, 2018).

Another is Katie Friedman-Kasaba's work on Jewish and Italian women in the New York garment industry in the early 1900s (Friedman-Kasaba, 1996). Likewise, there are also studies on the importance of immigrant labor in service (Lintelman, 1991) and transportation (Fishkin & Chang, 2019). Other general studies offer insights into the role of immigrant labor in an expanding American economy (Gutman, 1977; Montgomery, 1999/1988). Immigrants, hence, played an important part in the American expansion both through their participation in commercial agriculture, as farm workers, as settlers, and as industrial labor in the cities (Gabaccia, 1988; Green, 1998; Keil&Jentz, 1983 etc.). Possibilities to establish themselves as settlers and farmers were over time, gradually replaced by dreams of a successful urban life in one of the growing cities in the United States. As transatlantic communications became more efficient and cheaper, more frequent journeys across the Atlantic were made possible and seasonal work became increasingly common for Southern European laborers during the first decades of the twentieth century (Piore, 1979).

Wherever they came from and regardless of the culture they brought with them, migrants became part of an army of workers which constructed cities and infrastructure that they later lived in and used (Foner, 2014, pp.29-32; Gutman, 1976) and that worked the factories and cash crop farms in the growing American economy. The timing and the skill sets brought by different groups decided their fate in the expanding American economy. Scandinavians whose migration started earlier than from Southern Europe had a better chance of taking up farming than the later

immigrants who tended to end up in urban areas to a larger extent. But even the Scandinavians became city dwellers over time. Not less than 67% of the Swedish immigrants lived in American cities by 1910. In fact, as early as the 1840s, two thirds of the European immigrants ended up as different types of waged labor and some ethnic groups, like the Irish, never took up farming to any large extent (Hoerder, 2002, p.336). One important aspect of the establishment of the United States' hegemonic position was, as has been pointed out, the westward expansion. In this expansion, the European migrants who took up homesteads and worked new taxable land, became an important resource (Hoerder 2002, pp.344ff). Their breaking of new land meant the integration of new geographical areas into the global capitalist economy. The literature on ethnic entrepreneurs, scientists and innovators of different kinds is plentiful. The ethnic small business owner was an integral part of immigrant society and the ethnic community often found creative solutions to the challenges encountered in the American cities.

As was shown in the Dutch case, out-migration and expansion also played a crucial part in the American rise to hegemony. The colonial projects in Cuba and in the Philippines meant the dethroning of Spain as a colonial power in the Pacific and the Caribbean. During the twentieth century out-migration of American capital and investors and specialists such as engineers and industrial specialists became a significant part of the rise to hegemony.

As American immigration laws became stricter in the 1920s, and, finally with the depression in the early thirties, migration from Europe all but came to an end. Other streams of migration were however also significant in providing the expanding American economy with a workforce. The Bracero program of the period 1942-1964 had been preceded by streams of undocumented Mexican immigrants for decades before the 1930s (Valdez, 1991, Rodriguez, 2023). Via the Bracero programs, American agriculture got access to hundreds of thousands of low wage Mexican seasonal workers that took part in harvesting, picking fruits, and so forth at American farms on the brink to its hegemony. The "legal" immigration was never enough to cover the demand, so, parallel to the Bracero system, unauthorized migration continued (Massey et al. 1987). Later on, people from other parts of Central America started migrating. These migration streams became an established pattern that has formed political and economic relationships between the United States and Central America into the twenty-first century. Rodriguez claims that these migration patterns were, to some extent, caused by early twentieth century U.S. capital's penetration that "advanced the commercialization of Mexican agriculture," which displaced rural workers and made migration a survival strategy for many of these workers (Rodriguez, 2023).

Apart from the Central American immigration, Rodriguez describes another migration pattern of significance during the U.S. period of hegemony, namely the internal rural to urban migration. The migration of African Americans and Mexican Americans was part of this pattern. Even though these migration patterns intensified during hegemony as a response to the demand in the American metropolis for labor in the service sector and the continued reliance of the American economy on low wage farm workers, these patterns were not new. On the contrary, the evidence points to the fact that these migration streams had been established many decades before American hegemony. African Americans had started leaving the southern agricultural economy for the northern cities

several decades before 1945 and as Rodriguez shows in his book, the Bracero program was merely a state level approval of an already established migration pattern and of an increasing demand in the American agricultural sector. So, some of the migration patterns that characterized the period after 1945 were already well established during the “prelude” to hegemony. The American global dominance merely accentuated this labor demand, and it took on new forms as the American white middle class in the new metropolitan centers demanded service workers in addition to workers in manufacturing and agriculture (Rodriguez). Rodriguez convincingly shows that the labor migration to urban areas went mainly to metropolitan centers. He claims that this migration was “connected to the spatial restructuring of monopoly capital in metropolitan central cities and suburban rings” (Rodriguez, p.177). In this move to the metropolis, African Americans, Mexican Americans, and other racial minority groups settled predominantly in central cities where they took jobs mainly in manual occupations.

As in the Dutch case, Rodriguez shows that the “Non-White or ethnically different groups were used to do the hardest work for the lowest pay and the Mexican and African American populations had significantly worse living and working conditions than the white populations in the American Metropolis.” This points to, apart from other economic concerns, how migration offered additional advantage for core countries in the way they could use less developed and subordinated regions as labor reserves from which to draw temporary labor as needed. In the Dutch case, this was partially organized as forced migration and forced labor. In the American case it was organized in a state program, in unauthorized immigration or as a consequence of long-term discrimination and exclusion of minorities (Rodriguez, 2023).

So, in conclusion, through the massive immigration during the long prelude to hegemony, the United States secured the labor and skills necessary for continual expansion. Immigration not only fueled the existing economy but was also paramount to the expansion within and beyond national borders.

Conclusion:

As we have seen in the Dutch case, the European periphery had provided necessary labor to core areas in Europe since the early modern period. Migration—whether externally induced or internally motivated—brought craftsmen, traders, and unskilled laborers, including both men and women, into the Dutch provinces of the Netherlands. These movements contributed significantly to economic expansion and accelerated the processes of urbanization across the region. Cities such as Amsterdam were among the largest and the most modern in Europe at the time. For the Dutch state and the Dutch economy, migrants became a prerequisite for the rise to hegemony. The inclusion of other areas as subordinate colonies and trading partners of the Dutch empire offered the opportunity to use subjugated people and slaves as forced labor who were paid little or nothing at all during the hegemonic phase. This stimulated both forced and voluntary migration of large groups within the Dutch world-system.

The United States received labor migrants during its rise to hegemonic status in the world-system from the end of the 1800s by becoming a nexus in the complex and quite sophisticated

global migration systems that emerged during the second half of the nineteenth century and up to WW1. In both cases, hegemonic status can be tied to economic growth fueled by a prelude period of strong immigration that continues into the hegemonic period. Given the size and the growth of the American economy during the nineteenth and early twentieth centuries, immigration to that country was tied to its expansion westward and was, as Silver and Arrighi argue, a prerequisite for rising to hegemony. The American rise to dominance in the world-system was tied to three main factors: industrial economic growth, increasingly strong domestic market for products that was not subordinated to the British hegemony of the nineteenth century, and the boost offered by long-term and significant immigration from the second half of the nineteenth century. This immigration, like in the Dutch case, involved both skilled and unskilled workers, both men and women, who took on roles both in production and reproduction and that were both part of the large work force of transient, temporary day laborers and more steadily employed workers. Even though many strategies, like the massive foreign investments during hegemony, the Pax Americana was based more on maintaining systemic stability than the Dutch system which was based on aggressive trade policies, where both military means and its strong economic position and technical advantage were used. Migration was in both cases an important prerequisite for hegemonic status and the establishment of an economic base for further expansion on a global scale. The interplay between economics, politics, and the acquisition of labor seem to be crucial in both cases.

In this article we have dealt with two different states that established themselves as hegemonic in the world-system, the Netherlands in the seventeenth century and the United States in the twentieth century. Although the states and their hegemonic status took on very different expressions and the economic world-system was at different stages of development, there are some interesting conclusions to be drawn related to the role of migration. In both cases, the hegemons were relatively new state formations in the form of republics that freed themselves from monarchist empires, the Spanish and the British respectively. In both cases, the hegemonic phase was preceded by bloody and costly wars that had in turn been preceded by large-scale economic expansion. In the case of the Netherlands, both their 80-year war of liberation and the European 30-years war, which ended with the Westphalian peace, were preceding the hegemonic period. In the U.S. case its rise and replacement of the British hegemony was primarily tied to the outbreak and aftermath of the First World War but also to the emerging social unrest in the European colonies in Asia and on the African continent.

But apart from these aspects, they also share the long-term process of extensive migration, processes which preceded their rise to a hegemonic position in the world-system. Large numbers of traders and labor brought capital and skills to the two states and were necessary in establishing its leading position. The early phases of immigration were, in both the U.S. and in the Dutch case, followed by emigration related to economic and political expansion; one form was colonial expansion. The two states, hence, show a significant ratio of “out-migration” of experts to the periphery and semi-periphery which is, even though numerically smaller, largely parallel with the process of in-migration. In the Dutch case it involved merchants, mariners, craftsmen and other specialists that moved to European peripheries, like Sweden, or to colonies that were established

on the African coast and in Southeast Asia. In the American case, it involved the colonization of the West by farmers, mining companies, and timber merchants. Later this changed into an outwards migration to Latin America and the Caribbean when American companies established themselves there. Both in-migration and out-migration and expansion, we argue, are significant in understanding transformations in the world-system. Female and male migrants in the early modern Dutch cities as well as in the emerging cities in the United States were crucial in the productive and reproductive work necessary to maintain outward expansion, the integration of new areas for exploitation and new markets. Migration can thus be described as one fundamental and central process when relations in the world-system change, and when new states gradually conquer a hegemonic position. This integrated comparison is focused on one aspect of transformations in the world-system. One general conclusion that can be drawn is that migration, in relation to changing relationships between different state formations, can be seen both as a catalyst to change and an accelerant to something that is already set in motion.

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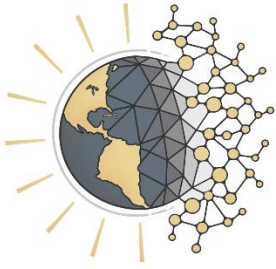
Disclosure Statement: Any conflicts of interest are reported in the acknowledgments section of the article's text. Otherwise, authors have indicated that they have no conflict of interests upon submission of the article to the journal.

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Haitian Reserve Army of Labor: A Product of Geopolitical, Endemic, and Phenomenological Violence

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Abstract

Haiti has endured both natural and man-made violence since colonization, shaping its population into a global reserve army of labor for the world-system. This paper examines how historical and structural factors, including colonialism, political instability, and economic exploitation, have contributed to the creation of a vulnerable population appropriable as a cheap labor force. It explores how these factors, compounded by phenomenological violence—the internalization of oppression and fear—have led to widespread migration, positioning Haitians as a global reserve army of labor, particularly in industries like sugarcane production in the Dominican Republic. Through this lens, the paper highlights how migration, fueled by both environmental and systemic violence, has entrenched Haitians in labor markets worldwide.

Keywords: Haiti, Violence, Migration, Reserve Army of Labor, Capitalism, World-System, Colonialism



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Haiti's history is profoundly marked by violence that is structural, phenomenological, and endemic (Dery and Molinero-Gerbeau 2024). This violence has not only perpetuated persistent poverty but has also driven various social phenomena, notably the migration of Haitians to nearly every continent (United Nations 2023). Although Haitian migration patterns and destinations are diverse (Augustin 2018), the Dominican Republic—and in particular, its sugar sector—emerges as one of the most significant destinations for this labor force (Audebert 2011). Haitians have historically constituted a cheap and indispensable workforce, facilitating the accumulation of surplus value wherever they have settled. The global sugar industry provides a salient example of how their availability has become fundamental to the functioning of sectors pivotal to global capitalism (Moore 2015a).

The relationship between structural violence, labor migration, and the integration of peripheral states such as Haiti into the global capitalist system has been the subject of considerable scholarly attention. Scholars, including Audebert (2011) and Augustin (2018), have analyzed Haitian migration patterns, focusing particularly on the Dominican Republic as a principal destination. These works offer valuable insights into the heterogeneity of Haitian migration flows and the socio-economic conditions driving mobility. Similarly, Moore (2015a) has shown how global industries—notably sugar—structurally depend on cheap labor from historically marginalized populations, providing a world-ecological perspective on labor exploitation under capitalism. In parallel, the United Nations (2023) has underscored how endemic violence contributes to poverty and displacement, framing migration as both a symptom and a consequence of persistent structural inequalities.

Despite this robust body of literature, critical gaps remain insufficiently addressed. While scholars acknowledge Haitian migration's historical roots and structural drivers, there is limited focused analysis on how systemic and historically constructed violence has explicitly and deliberately served the world-system. This paper argues that these factors have produced a global Reserve Army of Labor that sustains global industries such as sugar production long term. Furthermore, little integrative work has been conducted combining Marx's theory of the Reserve Army of Labor with the specific historical trajectories of Haitian violence—both structural and phenomenological—to explain how Haiti's labor force has been continually rendered vulnerable and exploitable within the world-system's division of labor.

This article contends that Haiti was integrated into the capitalist world-system not only as a supplier of raw materials, but also as a reservoir of labor instrumental in the accumulation of wealth by global powers that have directly and indirectly dominated the country. The endemic and phenomenological violence that has shaped Haitian society plays a central role in maintaining the island's subaltern status, thereby ensuring its continued position within the global economic order. Born into violence, Haitian subjects—confronted with a persistent lack of alternatives—are rendered cheap and disposable workers whose labor remains crucial to sustaining industries such as sugar on an international scale.

This paper seeks to explicitly theorize the Haitian labor force as a historically constructed global Reserve Army of Labor, shaped and maintained through centuries of violence. This

approach bridges the theoretical framework of Marxist political economy with a historical analysis of Haitian violence, offering an interdisciplinary contribution that has been largely absent from both migration studies and global labor history. To undertake this historiographical work, secondary sources tracing Haiti's history from the colonial period to the present day have been reviewed, with particular emphasis on the various forms of violence that have shaped Haitian society and their consequences for the future of its population within the global division of labor.

The article proceeds as follows: the first section will examine the theory of the Reserve Army of Labor. The second section will explore the historical and structural violence in Haiti. The third section will analyze the structural factors that shape the Haitian Reserve Army of Labor. The paper concludes with a synthesis of key findings and considerations for future scholarship.

Future researchers will be encouraged to conduct empirical studies quantitatively, measuring the flows and economic impacts of Haitian labor in global industries beyond sugar; explore comparative cases where similar patterns of labor force construction through violence are observable in other peripheral regions; and investigate how contemporary transformations—including neoliberal economic shifts, climate change, and evolving migration policies—may be reshaping the dynamics of this Reserve Army in ways not yet fully theorized.

Global Reserve Army of Labor

Despite the inseparable link that the Reserve Army of Labor (from here, RAL) concept has with Marxist theory it is a pre-Marxist notion promoted by the British workers' movement, which Karl Marx incorporated into his theory (Marx 1867; Denning 2010). Although it has become more complex and extended over time, it can initially be summarized as the population layer, which, in the capitalist system, does not own the means of production (capital) and is therefore obliged to sell its labor power. Its availability on the labor market—whether or not workers have a job—characterizes this large group. In the hegemonic language of the world of statistics, it is today considered to be "active workers" (Marx 1867; Harvey 2005; Standing 2011).

An early and explicit conceptualization of a phenomenon akin to the RAL can be traced back to classical political economists prior to Marx. For example, Thomas Malthus (1798) highlighted the idea of a surplus population, positing that population growth tends to outstrip food production, which creates a pool of destitute laborers. Similarly, David Ricardo (1817), in his theory of value, underscored the significance of a subsistence wage, implicitly recognizing the existence of a structurally unemployed class that functions to keep wages low. These pre-Marxist theories framed surplus labor not in terms of class struggle but as inevitable demographic and economic phenomena.

The subtlety that the Reserve Army metaphor brings to the simple description of active labor is the inability of those who belong to it to impact the relationship between supply and demand in the labor market (Grover 2003). Thus, their bargaining power over their working conditions is

minimal; because there is a surplus of workers in relation to capital's real labor needs, the latter is in a position to “extend...massively the exploitation of labor through measures of the production of absolute surplus value, which is through lower wages, longer working hours, and an intensification of labor through piecework, etc.” (Kaarsholm 2020: 6). Two essential characteristics of the Reserve Army are its large size, which makes workers replaceable, and its usefulness: “the effectiveness of the Reserve Army is not just linked to its size. To be competitive, individuals must also have characteristics that capital desires” (Grover 2003: 20). Consequently, the Reserve Army should not be interpreted simply as a pool of unskilled workers but as the entire workforce that the system can appropriate on the cheap (Moore 2015a).

Two structural functions characterize this collective: availability and replaceability. The first is linked to capitalism's need to be able to immediately recruit, at the lowest cost, the workers the productive system needs without slowing down the accumulation process. The second is linked to the docility and discipline of the workforce. If there are more workers than demand (what is commonly considered structural or residual unemployment), then workers' ability to exert pressure on wages and working conditions is reduced, since at the slightest protest, others can quickly replace them (Moore 2015b).

Building on these early insights, Marx (1867) elaborated the concept of the RAL with greater theoretical precision. In *Capital*, he identified three components of the relative surplus population: the floating, latent, and stagnant segments. The floating segment includes temporarily unemployed industrial workers, the latent segment corresponds to surplus rural labor that can be drawn into industry, and the stagnant segment comprises those trapped in irregular, underpaid work. This typology reveals how capital structurally produces and reproduces surplus labor to discipline the workforce and intensify exploitation.

Based on these characteristics, the RAL has been analyzed from various perspectives differing in the field of work and has evolved depending on the author and on the scope of the context analyzed. Marx, for example, spoke mainly from the industrial perspective, focusing on the Industrial Reserve Army and revealing the system's tendency to try to depend less on variable capital (labor) and amplify constant capital (machinery), thereby amplifying the Industrial Reserve Army and reducing its cost. In the words of Xie, Kuang, and Li (2018: 2), “Marx's theory reveals that capital accumulation will keep increasing the organic composition of capital, and the relative proportion of variable capital will decline, resulting in the emergence of the relative surplus population, namely the RAL.” Indeed, the RAL as a necessary and permanent element of capitalism is not a temporary or accidental phenomenon, but rather, one that constantly recurs due to the inherent dynamics of capitalism (Marx 1867).

Outside the Marxist framework, other authors have enriched the RAL theory, even without using the term. For example, Ricardo (1817) in his theory of value, discussed the centrality of the

subsistence wage and the structural function of unemployment. Keynes (1936) analyzed the relationship between supply and demand for labor in the labor market, showing how unemployment, even if pursued by the system, also works against it. He revealed that an excessively large RAL reduces the economic dynamism of consumer societies. Marcuse (1964), following in Keynes' footsteps, also examined the social and political implications of unemployment. He argued that unemployment is deliberately created by capital to weaken the working class, driving down wages and boosting the competitiveness of the capitalist system. This is partly due to the difficulty of reducing production costs from constant capital, which limits the scope for lowering variable capital. Layard (1997: 190) points to the importance of the creation of the RAL as a mechanism for controlling labor costs: "In any economy there has to be some short-term unemployment to ease mobility and restrain wage pressure by providing employers with a pool of workers able to fill vacancies" and thus the employees remain under control.

More recently, authors such as Standing (2011) have developed perspectives adapted to contemporary logic. Standing became particularly influential through his notion of the "precariat class," which shares similarities with the RAL theory. He argued that the decline of trade union power and increasingly neoliberal legislation have created a new layer within the RAL. Even when workers earn a wage, the prevalence of precarious working conditions renders them itinerant and replaceable. Uninsured wages and fixed-term contracts make the availability of labor for the labor market more flexible while generating economic insecurity and day-to-day stress that have significant repercussions on workers' physical and mental health.

Gender also plays a decisive role in shaping the RAL. Federici (2012) addressed this issue by examining the sexual division of labor and demonstrating the patriarchal nature of the capitalist system, which creates a specific RAL of women, locating their position in certain segments—notably linked to social reproduction and care—often without remuneration. Indeed,

the origin of the differences in power between women and men was thus related to the exclusion of women from capitalist development. Such a position obliged us once again to explain the perennity of sexism in capitalist relations through cultural dispositions (Federici 2014: 13–14).

In fact, world-systems theory, particularly Wallerstein (1983), expands Marx's national-centric perspective by framing the RAL within a global capitalist system. It highlights how peripheral countries act as variable capital suppliers, which is not only related to raw materials but also to labor by disposing of a reserve labor pool for core economies, which, in the form of migration, perpetuate uneven development and dependency. This global RAL serves the same disciplinary and cost-reduction functions at an international scale.

On one hand, incorporating theories of violence further sharpens our understanding of how populations are rendered part of the RAL. Galtung's (1969) theory of structural violence shows how economic and social systems systematically harm marginalized populations by preventing them from meeting basic needs, thus producing vulnerable, expendable labor. Similarly, Žižek (2008) differentiates between subjective violence (direct, visible) and objective/systemic violence (embedded in social structures), which parallels how the RAL is invisibilized but perpetually reproduced.

On the other hand, theories of dispossession, such as Marx's (1867) primitive accumulation, David Harvey's (2005) accumulation by dispossession, or Bin and Mondal's (2020) logic of dispossession, reveal how displacement, expropriation, and depeasantization historically and contemporarily create surplus labor pools. These mechanisms are critical to understanding how migration, land grabs, austerity policies, and neoliberal reforms continually manufacture the global RAL, reinforcing core-periphery divisions along the world-system.

In conclusion, the RAL refers to the system's structural need for an abundant, flexible workforce to be integrated into the productive system at low cost, thus guaranteeing the continuity of accumulation processes. However, as it has been defined, this perspective has commonly tended to have a national orientation, given the influence of states in determining the conditions that make it possible. Particularly since the 1970s, following the rise of neoliberalism, several authors, including Hymer (1979), have begun to approach the Reserve Army from a transnational perspective, speaking of a global RAL. In a world-system where economic frontiers are progressively abolished, and the free market incorporates more and more territories, the growing overpopulation of peripheral countries has been understood as a new frontier for the appropriation of cheap labor. The global momentum of South-North migration, whether autonomous (through migrants' own decisions) or deliberately activated (through mechanisms such as guest worker programs), has injected the economies of the core with a new RAL, indispensable for sustaining outsourced economies. Moreover, since the 1990s, the collapse of the Soviet bloc has opened the doors of almost the entire globe to the labor force required by the capitalist world-system (Foster and McChesney 2017).

However, a historical perspective shows us that the capitalist world-system had already previously disposed of the populations of the global periphery as a transnational RAL through their enslavement, colonization, and expatriation (Molinero-Gerbeau 2017). Africans, Americans, Asians, and Oceanians have already been appropriated as cheap (or free) labor available to the global core. The contemporary global division of labor is the direct heir to these processes, and today's international migrants are the post-colonial descendants of these populations. The conversion of the so-called "Third World" into a supplier of variable capital is a function historically constructed by colonialism and the expansion of the world-system (Wallerstein 1983).

Today, the entire population of the global periphery constitutes the largest RAL in history in what is undoubtedly the most recent and most extensive appropriation of the productive frontier of labor since the long sixteenth century.

As we shall see in the following sections, Haiti has been subject to these factors in various forms throughout its history, transforming its population into a gigantic global RAL mainly through violence. Haiti is a state whose perpetual structural violence has generated conditions of poverty and social instability that have pushed part of its population to migrate and become a producer of cheap labor that augments the RAL. The following section will briefly review the forms that violence has taken throughout history and the structural effects it has had.

Structural and Historical Violence in Haiti

Since 1492, Haiti has been the object of structural and endemic violence provoked by the world powers of the core. To gain control of the newly conquered land, the Spanish imposed slavery on Haiti's native Arawak people and renamed both parts of the island Hispaniola (Trouillot 1995). These conditions—marked by extreme violence and the various diseases imported from Europe—led to the extermination of the native population (Cook 2002). Their subsequent replacement by enslaved Africans gave rise to a system that would last for around two centuries.

In 1697, under the Treaty of Ryswick, Spanish colonial control over the island was reduced, and Spain ceded its western part to the French, who later named it Saint-Domingue (Midy 2006). However, the change of authority did not alter the conditions of slavery that prevailed on the island. On the contrary, it led to a large increase in slavery on the western side of the island since the French favored the plantation system. The Haitian population, made up of French colonists and enslaved persons of African origin, was governed by a regime of terror and violence from the former toward the latter. As in Spanish times, slaves who rebelled had one of their limbs mutilated, and if they struck a colonist, they were hanged in the public square (Tardieu 1999). The latter method illustrated the fate reserved for those who did not wish to obey their owners, as slaves were considered the master's property (Burgat 1998). The violent slave system would prove quite profitable, as the colony of Saint-Domingue, known as "the pearl of the Antilles," would become the colony that produced the most wealth for France, the most prosperous in the Americas (Blancpain 2004). However, after three centuries of violent domination, in 1791, at the Bois Caïman ceremony, the slaves began a bloody revolt in their quest for freedom that would last 13 years. During these years of war, all the plantations were reduced to ashes, houses were destroyed, and the loss of human life on both sides was numerous (Lamrani 2021).

After Haiti proclaimed independence in 1804, the new nation sought to become an example of freedom and prosperity. Moreover, keen to export its experience, the country collaborated with

Simon Bolivar, who fought for independence for some of the Spanish colonies. Despite this, these factors did not help Haiti escape the onslaught of core powers whose position in the world-system was threatened by Haiti's proclamation as an independent country and its collaboration with others who wanted to put an end to slavery (Hurbon 2007). In addition to the economic embargoes and constant attacks from ex-colonial powers, including France's attempts to regain control of the territory, there was also internal unrest. Two years after the proclamation of the Republic of Haiti, in 1806, Emperor Jean Jacques Dessalines, one of the pioneers of the War of Independence, was assassinated on his way back from the South because of the agrarian reform policy he had advocated (Saint-Louis 2015). The internal struggle for power after Dessalines' death became a civil war that prevented the country's development and led to its division into one Kingdom in the North and two republics: South and West (Hector 2009). On the diplomatic front, France continued to exert pressure on Haiti and all countries wishing to enter into trade relations with the new nation (Labelle 1978). For example, Haiti, for being considered an anarchy of slaves in rebellion against their master, was refused entry to the Summit of the Americas held in Panama in 1826 (Dorigny 2003).

The new Haitian state, shaken from the outside and the inside, would not live in peace, perpetuating its history of violence: "Haiti's political life in the 19th century was characterized by a succession of coups d'état and revolutions until the country was finally occupied by the United States in 1915" (Josh Dewind and Kinley III 1988: 21). Indeed, the internal struggles and geopolitical violence waged in Haiti during the nineteenth century served as a pretext for the United States to send a military force to occupy the country in the early twentieth century (Blancpain 1999). This U.S. presence in the country, which lasted over 19 years, however, did not reduce the level of violence that had characterized Haiti throughout its history. On the contrary, to take control of the country, the occupying forces used violence and waged war on the resistance armies of the Cacos and Piquets in the country's North and South (Porter, C. Méheut, C., Apuzzo, M. and Gebrekidan 2022). The Haitian resistance fighters refused to submit to the American occupiers, who wanted to impose the *corvée* system from when Haiti was a French colony (Saint-Fort 2016). Historians estimate that 11,000 Haitians lost their lives during the U.S. occupation, which was also financed by the national economy since the occupier controlled it completely (Saint-Fort 2016).

The post-occupation period was no more peaceful. From 1957 to 1986, Haiti experienced 29 years of dictatorship under the Duvalier fathers and sons. During this period, the country's wealth was robbed, corruption was at an all-time high, and political assassinations were sadly commonplace. Opponents of Duvalier's rule had to contend with the Tontons Macoutes militia created by François Duvalier, who "have only one soul: Duvalier, know only one leader: Duvalier, fight only for one destiny: Duvalier in power" (Hurbon 1987: 19), and whose mission it was to

silence political opponents in any way they could. The Duvalier dictatorship ended on February 7, 1986 with the forced departure of Jean-Claude Duvalier, following violent demonstrations in every city in the country. In the words of Le Devoir (2021), “After Jean-Claude Duvalier’s departure, insecurity and crime continued to take on a political tone under the military governments. They peaked during the military coup, from September 30, 1991 to October 15, 1994.” If in the Duvalier era, the Tontons Macoutes were the parallel force helping to establish the dictatorship, in the Aristide era and the years that followed, it was the Zenglendos, armed gangs that controlled the country’s biggest cities. The communes of the West, Artibonite, North, and North-West were infected by armed gangs who kidnapped, murdered, and controlled customs and the country’s main roads. Assassination became the norm, and insecurity characterized every aspect of Haitian life to this day.

But violence in Haiti is not only human in origin. In addition to political violence, there is also natural violence, such as earthquakes, hurricanes, and tropical storms, that have had a considerable impact on Haiti’s development as a violent nation. Among the most recent natural disasters was the earthquake of January 2010, which left between 200,000 and 230,000 people dead, nearly 300,000 injured, and around 1.5 million homeless, with material damage estimated at just over 14 billion dollars (Jabouin 2012). The earthquake of August 14, 2021 was equally devastating, claiming the lives of 2,248 people, injuring 12,763, and leaving 329 others missing across three heavily affected departments (SNGRD 2021). Meanwhile, Hurricane Matthew in October 2016 affected

more than 2 million people, or around 20 percent of the country's population. The Haitian Government reported 546 dead, 128 missing, 439 injured, 175,500 people living in temporary shelters, and immediate needs for humanitarian assistance for 1.4 million people (around 12.9% of the population) (MICT/MTPTC 2017: 48).

The bad weather of June 2023 resulted in “42 deaths, 11 missing persons and 85 injured...more than 13,500 houses were flooded, affecting 12,779 families and leading to the evacuation of 6,334 people” (SNGRD 2023).

In conclusion, this brief historical overview shows how violence has been present and particularly virulent in Haiti's history. Since 1492, the country has lived constantly under the violence of colonizers, slavery, infighting, dictatorships, armed gangs, and geopolitical aggression, all of which have prevented it from opening up equitably to other nations of the world-system. The following section highlights some of the socio-structural effects of this violence and how they have contributed to turning large numbers of Haitians into a cheap global Reserve Army.

Structural Factors Shaping the Haitian RAL

As seen earlier, the historical evolution of the world-system has relied on the deepening domination of the core over the periphery to maintain the process of global accumulation. Colonization and slavery are only a small, albeit highly visible and relevant, part of the strategies deployed to maintain this hierarchy aimed not only at sustaining the asymmetry of power but at guaranteeing the supply of cheap variable capital (raw materials and labor) for the capitalist production of the world-system's core (Moore 2015b).

In fact, natural disasters in Haiti have historically aggravated both political and structural violence, creating conditions that perpetuate cycles of suffering and exploitation. For example, the 2010 earthquake not only caused massive physical destruction but also deepened pre-existing inequalities, leading to increased displacement and the erosion of already fragile livelihoods. The state's inadequate response to the disaster, combined with external interference and the mobilization of foreign aid, contributed to the expansion of structural violence through displacement, dispossession, and worsening poverty (Hernández 2011). These conditions, marked by precarity and subalternization, are often exploited by political elites who, under the guise of "reconstruction," further entrench inequalities and suppress dissent (Toussaint 2013). Additionally, natural disasters have historically provided the backdrop for political violence. For instance, the 1791 slave uprising in Haiti was precipitated by the oppressive conditions that included exploitation following environmental degradation, with the revolution serving as both a response to political tyranny and structural violence (Fick 1990). In this way, natural disasters do not merely destroy physical infrastructure but also act as catalysts for deeper political violence, including coercive migrations, invasions, and the establishment of dictatorial regimes, all of which are rooted in the systemic vulnerability produced by both nature and state (Gordon 1997). This section will argue that the violence suffered by Haiti directly provoked the conversion of its population into a gigantic global RAL.

We can situate the beginning of this process with the slavery period that lasted over 300 years, during which the original inhabitants of this corner of the world, the Arawaks, were exterminated and the men and women who came from the African continent to replace them were enslaved. Compared to other territories where the formation of the RAL was subtler, this fact shows how the first population movements aimed to deliberately convert Haiti's inhabitants into a workforce directly available to the colonizer. The objective was clear: the metropolis needed cheap raw materials to support accumulation and counteract European power struggles (Moore 2021). This was made possible by the exploitation of free labor (slaves) and the violent appropriation of land for the monoculture of sugar cane, indispensable in the new European diet. Moreover, according to Moore (2000: 413), "sugar monoculture rapidly exhausted soil fertility through a process of highly unequal, and very rapid, ecological exchange." This contributed to the subsequent

formation of the RAL by reducing the arable land available to the population during the post-colonial period.

The scale of monoculture in the colony of Santo Domingo was such that the island became the main producer of sugarcane in the world-system. This led to deforestation and the monopolization and dispossession of arable land to the detriment of the peasants. In the words of Pierre,

[t]he ecological consequences of colonization in Haiti are still being felt today and have worsened over time. In addition to the disappearance of the Arawaks 25 years after the arrival of the Spaniards, the black slave trade and the plundering of the territory's resources, the expansionism of the conquistadores and French capitalism have for 300 years ravaged the nature of Santo Domingo (Pierre 2020: 131).

The disappearance of the Taïnos, monoculture, the introduction of new forms of crops, the destruction of the habitat, and the extraction of gold, among other things, were, in a way, the beginning of the ecological disaster and rural exodus in Haiti. Pierre (2020: 132) states that “[c]olonialist violence and additions of European origin to the fauna, flora and pathogenesis of America caused the destruction of millennia-old civilizations such as those of the Aztecs, Incas or Arawaks,” ultimately leading to the rural exodus. This process of weakening peasant power relations was to be gradual and deepened with the American occupation in the first half of the twentieth century. Five centuries of peasant dispossession led to the impoverishment and decapitalization of communities to the benefit of an elite, significantly reducing development opportunities, knowing that

when family businesses were the predominant economic systems in rural agriculture communities, researchers talked about “multiplier effects” of three and four; money generated in the agricultural sector would circulate in the community, changing hands from one entrepreneurial family to another three or four times before leaving the rural community. This greatly enhanced the community’s economic viability (Magdoff, Foster, and Buttel 2000: 73).

As in other areas of the world-system (Araghi 1995), the decapitalization of peasants was a factor in the creation of the RAL, which led to mass migration to the cities, particularly Port-au-Prince, generating a process of shantytownization. The inability to integrate rural migrants into the urban economic fabric reinforced social exclusion and posed problems for urban management. Faced with a lack of economic prospects, some rural migrants opt for emigration, often clandestine, to other countries, while others join armed gangs.

In short, the colony’s structure remained after independence, leaving the heirs of the former slaves with little possibility of real emancipation, accelerating internal (rural-urban) and external

(emigration) migratory flows, and aggravating economic inequalities and social exclusion. Haitians, dispossessed of their land, will have nothing to sell but their labor power in an economy where options are reduced to participating in violence, supporting the autocratic power of elites, or emigrating. Kaarsholm (2020: 6) states that “Haitians have been dispossessed, expropriated, and have become ‘radically dependent’ for the subsistence of their livelihoods in a capitalist labor market,” creating an enormous RAL that can be exploited globally. Indeed, many of these expropriated people moved to the Dominican Republic during the same period, creating a panoply of day laborers and seasonal migrants who, thanks to their low cost, underpinned the productivity of the global sugar cane industry (Wooding 2014; Martinez 2018).

The second factor behind the creation of the Haitian RAL is the geopolitical violence, wars, invasions, dictatorships, and international blockades that have prevented the country from developing and integrating into the global concert of nations on an equal footing. In fact, this structural violence is part of a strategy of subalternization designed both to prevent Haiti from becoming an example of liberation in the world-system, and to maintain the territory as a provider of variable capital. Thus, since Haiti declared independence, trade relations with other countries have always been based on inequality. In the words of Etienne,

Exclusive trade with France placed the colony in a situation of total dependence on the mother country both for the sale of its tropical commodities and for its supply of manufactured goods and black labour. Thus, European products—flour, wine, tools—sold at exorbitant prices on the colonial market. In contrast, tropical commodities—sugar, coffee, indigo, and cotton—were bought at very low prices (Etienne 2007: 67).

Politically, the sidelining of Haiti by France, the United States, and other New World countries continued as a mechanism of domestication and submission. A nation of former slaves could neither become fully free nor prosper because that would threaten the geopolitical interests of the core. Indeed, even though the country contributed manpower and munitions to the Latin American wars of independence, these turned against Haiti. Let us not forget that the United States continued to benefit from slavery long after independence, so Haiti’s punishment for breaking this pattern would be international isolation. Thus, as Léonard (2003: 213) states, “the American Congress successfully opposed Haiti’s participation in the summit of the independent countries of America, held in Panama in 1826.”

Subsequently, the Americans took direct control of the country in two ways. At the beginning of the twentieth century, intending to reduce European influence on the territory, they invested in Haiti through several companies such as Tropical Dyewood, American Dyewood, National Railroad, and the Corporation Trust of America from 1908 and 1909 (Etienne 2007). This was accompanied by corruption, giving them unprecedented political power. In the words of Castor

(1988: 33), “Solidly established in Haitian economic life, foreign businessmen also exerted a direct influence on political life, supporting governments, financing ‘revolutions,’ participating in the fall or accession to power of presidents, flouting all the laws of the land.” Based on the principle: who finances, commands, the presence of the United States through its various companies placed it in a privileged position in Haiti’s politics. By obeying the dictates of the United States, the country fell under another form of colonization, which, at the beginning of the twentieth century, became a formal occupation that lasted from 1915 to 1934.

American colonization was fundamentally the colonization of the imagination, which would later extend to the self-colonization of the Haitian imagination. It was more mental and psychic enslavement than physical enslavement. The Americans acted in such a way as to precondition the Haitians so that they would do the will of the United States without any need for physical domination (Louis 2010: 239).

The 19 years of U.S. occupation contributed significantly to the impoverishment of the peasants, who were dispossessed of their land in favor of U.S. companies and joined the RAL. Indeed, Haitian migration in the twentieth century was accentuated by the American occupation of Haiti from 1915 to 1934 (Audebert 2011). Moreover, this migration was not only spontaneous but also directly driven by the Haitian government. With a surplus of labor in their territories, Haitian authorities and U.S. companies facilitated the recruitment of Haitian workers to travel to Cuba to work on their plantations. This was also the case in the Dominican Republic. The migrant workers were mostly men with a very low level of education, as they were engaged in agriculture while in Haiti (Perusek 1984).

After the departure of the occupiers in 1934, the country continued its descent into hell, facing various coups d’état, the bloody Duvalier dictatorship, the 1991 *coup d’état*, and the departure of Aristide in 2004, in exile as President in office. The instability drifted into constant social violence and flagrant political corruption while continuing the process of economic collapse and impoverishment of the population. Converted into an immense RAL, Haitian society had no other option than to participate in the violence, migrate, or try to subsist under terrible conditions that continue to this day.

Therefore, the state’s governance is the third structural factor in the production and reproduction of the Haitian RAL. An apparent effect is the lack of investment in education due to corruption and violence. From the period of slavery to the present day, the country has never developed an education system capable of training its population. This has perpetuated its subalternization and made the Haitian workforce only globally competitive enough to enter the lower echelons of low-cost labor markets.

Today, 20 percent of children aged 6-10 do not attend school (Haiti Libre 2021). Already impoverished, access to higher education is a luxury for most of the population. Only 22 percent

of higher education institutions are public, while 78 percent are private (CRISH 2023). Even those who do have access to education face significant obstacles, such as street demonstrations and political unrest, violence due to natural disasters, and armed gang violence. This means that a student in Haiti can spend between seven and ten years to complete a degree in medicine, for example (Le Nouvelliste 2023).

Political instability has also worked against any initiative aimed at improving the lives of Haitian citizens. After three decades of the Duvalier dictatorship, Haiti's fledgling democracy suffered a *coup d'état* against President Aristide in the 1990s, which brought the country to an economic standstill. Daudet (1992: 93) tells us that,

[o]n October 3, 1991, resolution MRE/RES.1/91, condemning the coup d'état... recommended that member states adopt measures aimed at the diplomatic isolation of the de facto authorities in Haiti, as well as the suspension of all commercial, financial and economic ties with Haiti, with the exception of strictly humanitarian aid (Daudet 1992: 93).

Aristide remained in exile until 1994, when he returned to finish his term as president. A severe trade embargo on the country marked Aristide's three years in exile. Those living along the border emigrated to the Dominican Republic to work on the plantations. Smuggling and exploitation at border points were also commonplace. To escape this subhuman misery, the population sought to flee the country in makeshift boats to the United States and other islands. Despite attempts to regain a sense of normalcy, no government in the twenty-first century has so far guaranteed the country's stability, and violence and corruption have continued unchecked. This evidence is so palpable that the 2023 Transparency International Corruption Perception Index report ranked Haiti 172nd out of 180 countries, close to Somalia and South Sudan. According to Roc (2007: 2), "Impunity reigns, corruption is endemic and 60% of the population lives below the poverty line." The consequence of this is that, in 2020, Haiti was ranked 163rd out of 191 in the Human Development Index drawn up by the United Nations¹.

The fourth factor in the violence in Haiti that is at the root of the reproduction of the RAL is the natural disasters that have ravaged the country. Between 1900 and 2011, Haiti experienced some 30 large-scale natural disasters (Rainhorn 2013). The main consequences are loss of life, destruction of homes and infrastructure, and loss of economic resources, particularly food. Hurricane seasons are very damaging to Haiti for many reasons. First, as Feldmann (2013: 32) says, "the majority of the population works in the informal sector." Secondly, no infrastructure enables the country to cope with disasters. Thirdly, houses are built in areas at high risk of flooding. Fourthly, the population is not accompanied by the authorities. All this is made worse by

¹ See <https://hdr.undp.org/data-center/human-development-index#/indicies/HDI>

corruption, which leads the country to total impoverishment. In the words of Von Einsiedel and Malone (2006: 164): “Already adverse humanitarian circumstances were aggravated when a series of tropical storms hit Haiti in 2004, burying entire cities in mud and killing thousands.” A few months later, in September of the same year, further floods ravaged the departments of Artibonite and Nord-Ouest, causing the death of thousands of people and the destruction of thousands of homes (Rainhorn 2013). The livelihoods of peasants in communes affected by tropical storm flooding were destroyed, intensifying the exodus of rural populations to the cities and emigration to the Dominican Republic and other neighboring islands.

From 2010 to the present day, three natural disasters stand out in the minds of Haitians: Hurricane Matthew in 2016 and the earthquakes of 2010 and 2021. These caused the deaths of between 230,000 and 300,000 people, leaving around 4 million affected or homeless (Schuller 2016; Dupuy 2021). According to a study by the Ministry of Industry and Commerce (2016), “the total damage caused by the hurricane [Matthew] on the region's economy amounts to almost HTG 6,266,550,349. Losses amounted to around HTG 7,171,824,485.4. These include variations in economic flows, including production and inventory shortfalls and unrealized sales.” Meanwhile, according to UNICEF data (2022), the earthquake of 2021 affected more than “800,000 people, including 340,000 children. According to official data, more than 2,200 people died, and some 115,000 homes, 97 health facilities and 1,250 schools were destroyed or damaged.” All these natural disasters have contributed to the population's impoverishment, maintaining its character as a RAL driven to emigration.

In sum, these various forms of violence have created a poor population with no opportunities, whose options are reduced to joining armed gangs or emigrating to work abroad. In short, political and geopolitical violence, corruption, instability, and natural disasters have turned the Haitian population into a gigantic global RAL, dispossessed, proletarian, and precarious.

Insertion and Structural Function of the Haitian RAL

Violence has marked Haitian history, provoking the transformation of its people into a gigantic global RAL both directly and indirectly by joining forces with other structural factors defined earlier. This section will look at the main destinations of Haitian migrant workers and the structural functions they have developed.

In Haiti, the reserve army of labor manifests through distinct rural and urban dynamics that together sustain an easily exploitable workforce. In rural areas, widespread land dispossession, soil depletion, and the collapse of subsistence agriculture—aggravated by decades of neoliberal economic policies—have expelled thousands from viable farming livelihoods, forcing them into seasonal and circular migrations, particularly to Dominican sugar plantations (Castel 2021). This

cyclical mobility creates a transnational labor pool that capital can mobilize during harvest seasons and discard afterward (Boyer 2018). Simultaneously, chronic neglect of rural infrastructure and social services entrenches dependency on precarious wage labor markets, with little alternative for rural populations (Castel 2021). In urban centers, rapid migration from the countryside has saturated informal sectors such as street vending, motorcycle taxis, and domestic work, while formal industrial jobs remain scarce (Desrosiers 2017). The oversupply of labor depresses wages and conditions across both formal and informal markets, reinforcing vulnerability (Patterson 2015). Additionally, many urban unemployed aspire to migrate abroad but lack the resources to do so, rendering them an immobile yet perpetually available labor force for domestic exploitation or future transnational recruitment (Boyer 2018). Together, these rural and urban processes ensure a constant flow of low-cost labor, reproducing Haiti's role as a reservoir of cheap, disposable workers for capitalist accumulation both domestically and abroad (Castel 2021).

History records that the emigration of Haitians fleeing violence and seeking to contribute to the liberation of other peoples was constant after the country's independence (Fischer 2013). However, there is no systematized data on the number of Haitian migrants who left the island during this period. Only at the beginning of the twentieth century, with the American occupation of Haiti, did we begin to have data indicating the dimensions of the phenomenon and identifying where the Haitian RAL went. Indeed, as we have already mentioned, during the occupation, Haitian migration was directly stimulated by the United States, in agreement with the Haitian government. This program aimed to ensure the availability of cheap labor to support global sugar production, suffering from a general drop in prices on international markets in the second half of the twentieth century. This led to a withdrawal of the *Cocolos*, who had worked on sugar cane plantations in the Dominican Republic until then, as the new labor prices set by the companies were no longer profitable for them.

Consequently, only a labor force made precarious by violence and lack of opportunities, such as the Haitian one, could guarantee the continuity of production without affecting prices. Moreover, the national government, controlled by the American occupier, acted as a facilitator of the process. According to Coulange Méroné (2018: 180), "In a depressed context in which the price of sugar fell internationally, these companies found in the Haitian a cheaper labor force than *cocola*." American Companies hiring Haitians had a double standard, as Haitian migrant workers received around "20 to 30 cents on the dollar, while in Panama they paid 3 dollars to the Americans for the same work" (François 2018: 5). Thanks to this cheap labor, Latortue (1985: 47) says that companies working in the sector were able to weather the crisis so "the relative progress experienced in the sugar field is largely due to the presence of Haitian immigrants working for low wages." Although the available data are not very precise, Koffi-Tessio (2005: 76) writes that "a census carried out in 1920 announced the presence of 20,000 Haitians in the Dominican Republic

and 70,000 others in Cuba,” that is, around 90,000 workers out of a population estimated at 2.22 million at the time, or 4 percent of the total population, without taking into account spontaneous displacements outside the program.

This migration of workers to the Dominican Republic has continued in various forms to the present day, continuously replicating the same logic: Haitians occupy the lower rungs of the corporate hierarchy and carry out the less automated work of production, which weakens their living conditions not only in terms of wages but also stability. This is a critical factor in creating and maintaining the RAL for the sugar industry to be organized and become profitable, thanks to the cheap employment of workers dispossessed by violence in their country of origin. According to Martínez (1997: 231), in the Dominican Republic, “the sugar company occupational hierarchy is stratified by ethnic ground, nationality, and residence status,” and within this structure, Haitians could only occupy the position of agricultural laborers on sugarcane plantations. Moreover, Hintzen (2016: 39–40) notes that “Haitians on sugar plantations were still an accepted presence, but Haitians living elsewhere were not.” Their place in Dominican society was thus strictly limited by labor, reproducing the position occupied by slaves a few centuries before. They are indispensable to production but are violently governed to avoid their presence in other segments of society. This is why, in 2013, the Dominican Government issued decree 168-13 denationalizing Dominicans of Haitian origin who had been in the territory since 1929 (Lazard 2019).

Haitian migrants who fled the violence of the occupying force, misery, and dispossession of their land headed to the Dominican Republic to work on the plantations, where they faced further violence. This manifests in different ways, such as extremely precarious working and housing conditions, even neo-slavery; but also, directly, as shown by the events of 1937, when President Trujillo had thousands of Haitians and Dominicans of Haitian ethnicity massacred with bladed weapons in the border region (Derby and Truits 1993). It should be noted that in 1939, Trujillo nationalized the sugarcane industries and continued recruiting Haitian migrant labor until he had a contract with the Haitian government (Turits 2002). The massacre thus reveals a desire to avoid a spontaneous presence of Haitians on Dominican territory, limiting it to the appropriation of the RAL for the exclusive benefit of the sugar industry. The violence of both the origin and destination countries serves to limit the spaces that Haitians can occupy, restricting their functions to those reserved for the RAL (Derby 1994; Wooding and Moseley-Williams 2004). According to the agreement, “the Haitian government received a payment of around two million dollars per yearly contract, as was the case during the American occupation” (François 2018: 8), showing a continuum between colonial slavery, U.S. occupation, and post-independence where sugar production has always depended on the Haitian RAL.

After the Trujillo contract, the practice of organizing the migration of Haitians to work in the Dominican sugar cane industry was renewed through an agreement between the Haitian and

Dominican states during the Duvalier dictatorship from 1957 to 1986 (de los Reyes Ramírez 2022). At the same time, in the second half of the twentieth century, the destinations of the Haitian RAL were diversified, including French Guiana to work in the banana fields and sugar production, thanks to the authorization of the French and Haitian governments to organize these trips (Joseph 2020).

During this same period, from 1957 to 1986, the Haitian RAL moved throughout the Caribbean, while other forms of migration to countries in the Americas, Africa, and Europe began to take hold. These resulted from the Duvalier dictatorship, which expelled or forced its opponents into exile. According to Koffi-Tessio (2005: 77), “As early as 1978, however, Haitian nationals constituted a population of undesirables turned away from the Bahamas, Cuba, all the West Indies, and even Venezuela, and turned to Guadeloupe, Paris and French Guiana.” In short, entire families were exiled or disappeared between 1957 and 1986 (Etienne 2007). Around 50,000 went to the United States and 4,000 to the Canadian province of Quebec (Audebert 2011). Those who arrived in the U.S. State of Florida

remained in a precarious legal situation in the early 1980s, with Washington refusing to grant them permanent legal status. The uncertainty of their fate in a land of exile led Haitians to opt for strategies of community withdrawal, with the family as the main setting (Audebert 2004: 12).

In Venezuela after 1986, the arriving Haitian migrant population took to selling ice cream, because on the one hand, it was the easiest way to find a job and regularize their status. Conversely, as noted by Charier:

The big distribution companies have a vested interest in ensuring the continuity of this system, as they know that these rural Haitians remain indebted to their parents who gave them access to this job, and will be reliable and dependent on the goodwill of the company (Charier 1999: 178).

In France, Mooney and Erbès-Seguin state that

Haitians face social exclusion. Firstly, 20% are undocumented, and only 33% have French nationality. Secondly, although many have an average or even high level of education, they suffer from high unemployment rates, close to 30%. Thirdly, they live in the suburbs of Paris that are stratified by racialization and social origin (Mooney and Erbès-Seguin 2008: 21).

Wherever Haitians settle, they occupy the lower rungs of the labor market. Structural violence thus deprives the population of opportunities and feeds the need for cheap labor in countries that have historically contributed to the country's chronic instability.

Five years later, after the departure of Jean-Claude Duvalier in 1986, from 1991 to 1994 the country experienced another wave of migration driven by violence and deepening poverty. This was triggered by General Raoul Cédras' *coup d'état* against President Jean-Bertrand Aristide and further compounded by the economic embargo imposed by the United States, which exacerbated socioeconomic conditions and forced thousands of Haitians to flee by sea and land (Fatton 2002; Farmer 2006). The combination of political repression under the military regime and international sanctions intensified the structural vulnerabilities of the Haitian population, pushing many into precarious migratory routes in search of safety and livelihood (Ferguson 2003; Schuller 2007). According to Audebert (2012), during the period of the *coup d'état* from 1991 to 1994, inflation rose from 7 percent to 52 percent, and the country's gross domestic product fell by 40 percent. This was the period of the "Boat People" when more than ten thousand Haitians left Haiti for the United States to escape the violence and economic crisis that was eating away at the country (Audebert 2012). Others continued to go to the Dominican Republic to join the RAL on the sugar cane plantations.

In the aftermath of the 2010 earthquake, it is difficult to speak of countries of origin, transit, and destination, as in the Haitian RAL case. In some cases, the migrants started their journey from the Dominican Republic, which can be considered both a transit and an origin country (Wooding and Moseley-Williams 2004); other countries in South America that were considered transit countries have become host countries in the face of the hardening of migration policies in Southern countries (Martínez Pizarro and Cano 2015; OIM 2017). Finally, some others that were considered host countries have become transit countries because migrants find it impossible to regularize their migratory status or because their expectations are not being met (Luiz and Cabral 2021). According to Audebert and Joseph (2022: 15) Haitian migration now has a "multiplicity of places of departure, transit, settlement, destination, return, and remigration, which challenges the traditional patterns of transnational migration in South America." Most of this migration was made up of young people aged between 21 and 40, heading for Latin American countries such as Brazil, which in 2014 was preparing to host the Confederations Cup and Men's World Cup, and needed cheap labor (La presse 2021) to build and repair stadiums. A large part of this population also moved to Chile a few years later because, from 2011 to 2018, the country needed labor for menial jobs, and the prerequisites for entry were minimal. Indeed,

in 2019, Chile and Brazil hosted respectively 180,000 and 160,000 Haitian migrants according to the most conservative estimates 40,000 the number of Haitian people in Ecuador 10,000 in Peru, 7,000 in Argentina there are an estimated 8,000 Haitian people in the Cooperative Republic of Guyana, 15,000 in Suriname and 40,000 in French Guiana (Audebert and Joseph 2022: 5).

As noted in *Haïti Libre* (2023), “It is estimated that there are more than 80,000 Haitians (most of them irregular) in the Bahamas, a country of only 350,000 inhabitants.” In Chile, following Amode we can note that

the high concentration of the Haitian workforce in construction (18.3 percent of the Haitian active population versus only 7.9 percent of the national active population), commerce (15.7 percent, the same as for Chilean workers), industry (14.2 percent, versus 6.4 percent of national workers) and agriculture (10 percent versus 6.2 percent for the national population) (Amode 2019: 187).

In all these contexts, most Haitians are employed in the informal labor market, continuing its historic role of supporting the productive patterns of the countries of destination thanks to its condition of cheap labor.

Even if the Haitian RAL diversified its destinations towards the end of the twentieth century and the beginning of the twenty-first century, its insertion has always followed the same trend. Today, in the Dominican Republic, more than 90 percent of sugarcane and by-product production workers are Haitian migrants, occupying the last slot in the social pyramid (Swanson 2022). Meanwhile, according to data published by Dominican Sugar Institute, “exports of cut sugar as of September 30 [2020], reached the amount of 219,096 metric tons raw value, equivalent to 211,278 metric tons commercial value, for the amount of US\$113.2 million” (INAZUCAR 2020: 16), revealing how the entire profitability of the sector is built on the exploitation of the Haitian RAL.

In short, structural and historical violence have generated a RAL that has essentially provided the global sugar sector with abundant cheap labor for its subsistence, sustainability, and growth. As this sector is fundamental to maintaining the capitalist world-system (Moore 2015a), this RAL performed a key structural function.

Even if Haitian migration has diversified its destinations over time, the insertion logic of this global RAL has followed the same trends. Haitians are only allowed to reside in countries that previously contributed to their impoverishment, in subordinate positions within a neo-colonial logic.

The gender dimension of the reserve army of labor in Haitian migration to the Dominican Republic is critical to understanding the exploitation dynamics within the sugarcane industry. Haitian women, often relegated to informal and lower-paying sectors, experience a unique intersection of gender and labor exploitation. While men primarily work in the fields under grueling conditions, women typically engage in domestic labor, food processing, and various informal economic activities that offer minimal pay and little to no labor protections (Wooding 2007). This gendered division of labor perpetuates economic dependence, as women’s roles in reproductive labor are undervalued, further limiting their opportunities for social mobility and

independence. Women also face heightened vulnerability to sexual exploitation, harassment, and physical abuse, both within and outside of the workplace (Castel 2021). Moreover, women's social invisibility in the formal labor market compounds their marginalization, as they are often excluded from collective bargaining efforts and labor unions, which tend to focus on male-dominated sectors like agriculture (Bauer 2018). This dual exploitation—gendered and economic—reinforces women's position in the reserve army of labor, rendering their work precarious and undervalued. As Wooding (2007) notes, this marginalization traps women in cycles of poverty and dependency, where their labor is vital to the survival of families but remains largely unrecognized within both the domestic and global economies.

Undeniably, this workforce is productive and profitable for the destination countries, as demonstrated by the fact that programs aimed at appropriating it continue to emerge. For example, on January 6, 2023, the President of the United States opened what is known in Haiti as the “Biden Program” to welcome Cuban, Haitian, Nicaraguan, and Venezuelan migrants. One year after the program's launch, 144,000 Haitians have already received permission to enter the United States, 138,000 of whom have already left Haiti (Haiti Libre 2024). Canada has also announced the opening of a program in March 2023 aimed at skills-based family reunification for sectors with labor shortages. It remains to be seen how these Haitians arriving in the United States and Canada through these programs will be integrated into the labor market and the two cultures, but it is foreseeable that they will occupy subordinate positions in sectors such as agriculture. On the other hand, there is no doubt that Haiti, because of these departures, has lost fundamental human resources that could contribute to its development (RFI 2023).

Conclusion

As we have demonstrated throughout this article, the creation of RAL is inherent to the capitalist system. The availability of a dispossessed, precarious, and abundant workforce guarantees downward pressure on labor costs, which promotes the accumulation of surplus value and thus ensures the smooth running of the system. Nevertheless, the RAL is not only created within countries. Specific geopolitical movements, the most obvious of which is the creation of colonies in the global periphery, have dispossessed entire societies and subjugated their economies in the lower echelons of the world-system hierarchy. In the case of Haiti, the colonial conquest of the island and the subsequent structural, geopolitical, endemic, and phenomenological violence that has characterized its political life, from slavery to contemporary armed gangs, combined with violence due to natural disasters, have converted the country's population into a dispossessed RAL for the benefit of other countries, in particular the United States and the Caribbean (Dery and Molinero-Gerbeau 2024).

The Haitian reserve army of labor (RAL) became key to maintaining the profitability of the global sugar industry, an industry built by colonial powers and later reinforced by the United States in the early twentieth century—the same nations that historically conquered, dominated, and subjugated Haiti since its very inception (Fick 1990; Dupuy 2014). Although Haitian workers continue to be concentrated in Dominican sugar production, the contemporary diversification of destinations has meant that countries such as Canada and Chile also have access to this cheap labor, perpetuating the global interest in maintaining Haiti under a regime of violence (Wooding and Moseley-Williams 2004). The country's chronic instability and lack of economic opportunities continue to reproduce a RAL that is far more beneficial to global powers than to Haiti's national development (Castel 2021). As Farmer (2004) argues, the intersection of structural violence and global economic interests locks Haiti in a cycle of dispossession and labor exploitation. The way out of this vicious circle, in which the country has been mired for centuries, remains uncertain, but understanding the hidden interests behind its subalternization may help lay the groundwork for constructing an alternative future.

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Disclosure Statement:

Any conflicts of interest are reported in the acknowledgments section of the article's text. Otherwise, authors have indicated that they have no conflict of interests upon submission of the article to the journal.

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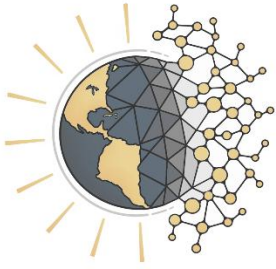
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Theorizing Labor Control in the Global Apparel Industry: A Case of Bangladesh

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Abstract

This article looks at the Bangladeshi apparel industry and critically draws on the extant literature on labor control to theorize how market and non-market actors control apparel workers and exploit their labor power at the bottom of a global value chain, reinforcing the modern world-system as a capitalist world-economy. My research draws on empirical evidence collected from 20 apparel factories in Dhaka, Bangladesh, and secondary sources to identify a new regime of labor control. I call this regime of labor control social despotism—a regime that deploys legal means, illegal coercion, informal power relations, and structural violence to dominate and exploit workers. Social despotism is created by two reinforcing forms of oppression: instrumental oppression and structural oppression. Market actors organize instrumental oppression to normalize coercion in the factory, creating the forced consent of workers to their exploitation. Market and non-market actors organize structural oppression, limiting workers' collective bargaining power within the factory and marginalizing their existence in social life. Both forms of oppression are present throughout four distinct phases of labor control: searching for the cheapest labor forces and manufacturing sites; recruiting workers; organizing work; and socializing, rewarding, and punishing workers. In short, social despotism constitutes a new regime of labor control within the world's second-largest apparel industry during the current phase of the modern world-system, where social institutions, including the state and family, collaborate with market institutions, such as multinational corporations and manufacturing industries, to exert control over workers both within and beyond factory settings.

Keywords: apparel industry, Bangladesh, Dhaka, instrumental oppression, labor control, RMG factories, social despotism, structural oppression, and sweatshop



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The global apparel industry witnessed the most brutal industrial accident in its recorded history on 24 April 2013. The Rana Plaza, an eight-story building housing several textile factories located in an industrial district of Dhaka, Bangladesh collapsed, killing 1,133 garment workers and injuring 2,500 (Smith 2016). This accident happened because factory authorities ignored prior warnings from building inspectors and didn't address observable cracks in the building's structure. Workers were forced to continue working in unsafe conditions, leading to the tragic and preventable loss of life. Since many reputed Western brands purchased their clothes from these factories, news of the tragedy reached millions globally and made headlines across the world.

Shakila Jahan, 46, a sewing machine operator, experienced extreme levels of exploitation, physical abuse, bullying, and violence during her 25-year career in the industry. She began working for \$13/month in 1997, and now works an average of 12 hours a day, 26 days a month, and receives \$120/month. In 2021, she estimated that 70 workers on her shop floor could make 1,400 regular shirts or 1,600 pairs of pants in a 12-hour working day, equivalent to 20 shirts or 23 pairs of pants per person per day. If a regular shirt in Western markets costs \$30, she generates a value of \$600 a day. Over 26 working days, she produces goods valued at \$15,600. However, she is compensated only \$4.60 (0.008%) daily out of the \$600 or \$120 monthly against \$15,600. Shakila estimated that it only takes four days of work to create enough goods in order to cover her entire month's salary, while still creating profits for factory owners, even after deducting all other costs. In essence, in a month of work, a worker receives no compensation for 22 days of work. Shakila has lost her job three times during her career because she joined protest movements against factory injustices and for higher wages. Now working at her fourth factory, she has stopped attending such protests, but has not given up her desire to see working conditions improve.

Zobeda Jannat, 41, a worker in the finishing section, lives in a slum with her husband and two school-going children. She gets up at 5 am to access a shared kitchen to cook meals for her family for the entire day. She feeds her children, prepares herself, and takes two meals while walking to the factory. During the 50-minute walk from home to the factory, she must work to avoid sexual harassers on the streets. In addition, when her husband or children demand extra attention in the morning, she is forced to walk fast to reach the factory before 8 am. Ms. Jannat works 12 hours a day in the factory, persevering through numerous challenges that include bullies, threats, and other humiliations. After work, she returns home by 8-9 pm, again encountering sexual predators in the streets. She then cleans dishes, takes a shower, listens to her children, and eats dinner before going to bed by 11 pm. Due to the severe injustices she faces at the factory, she attempted to leave her job three times, but her husband forced her to continue working there. She described domestic oppression at home, saying "I give my salary to my husband every month... and he makes all decisions in the family." If she does not give him the money, he "behaves badly" with

her, even threatening to prevent her children from being able to attend school. She lamented, “I wanted to divorce him, but I could not because of my children’s future.”

Together, the three stories described above reveal the internal structure of today’s global apparel industry functioning within the modern world-system: a reliance on the world’s cheapest labor, super-exploitation of workers, death-trap factories, abusive bosses, brutal suppression of workers’ resistance, violation of labor rights, starvation wages, marginalized workers, radical pessimism, patriarchy, and fetid slum lives. These stories frame the central research question of this paper: How do market and non-market actors control apparel workers at the bottom of a global value chain to create surplus values to reinforce the modern world-system as a capitalist world-economy? Three specific and interrelated questions are as follows. How do market actors create and recreate different phases of labor control in the global apparel industry, particularly in the Bangladeshi Ready-Made Garment (RMG) industry? How do market actors control workers who are highly conscious about their rights and benefits and highly reactive to their experiences with oppression, repression, deprivation, and exploitation? How do market and non-market actors produce and reproduce, as well as capitalize on, workers’ vulnerability in a factory, street, slum, family, and broader society? Market actors include marketers (e.g., VF Corporation and Adidas) buyers (e.g., H&M and Walmart), financial regulators (e.g., WB, IMF, and ADB), factory owners, managerial teams, hired thugs, trade union leaders, and coworkers. In contrast, non-market actors include various state agencies (e.g., the ministry of industries and industrial police), politicians, bourgeois intellectuals, media persons, slumlords, street men, friends, and family members.

This article first identifies five regimes of labor control within the existing global literature. These regimes are market despotism (Marx 1995), ideological hegemony (Gramsci 1971), managerial hegemony (Braverman 1974), hegemonic despotism (Burawoy 1983), and global hegemonic despotism (Anner 2015; Bonacich and Appelbaum 2000; Fröbel, Heinrichs, and Kreye 1978; Gereffi and Bair 2010). Critically building on theories associated with these regimes of labor control, this paper explores a new regime that better explains the research questions posed above. I call this social despotism—a regime type that deploys legal means, illegal coercion, informal power relationships, and structural violence to control and exploit workers inside and outside factories. It is a new regime because social forces, e.g., the postcolonial state¹, religion, community, and family, join market entities, e.g., multinational corporations and manufacturing industries, to dominate workers. This regime examines labor control in the following four phases: (1) searching for the cheapest laborers and manufacturing sites, (2) recruiting workers, (3)

¹ As a postcolonial state, Bangladesh is characterized by weak and unaccountable institutions, a lack of rule of law, pervasive corruption, diverse political regimes such as one-party, socialist, military, and authoritarian democratic systems, a clientelist political culture, unplanned urbanization, widespread poverty, and limited access to quality education and healthcare.

organizing work, and (4) socializing, rewarding, and punishing workers. Two forms of oppression² exist in the four phases of labor control: instrumental oppression—organized by market actors, and structural oppression—practiced by market and non-market actors. Instrumental oppression is defined as a system of labor control that normalizes coercion within the factory and creates the forced consent of workers to their exploitation. Structural oppression is practiced and maintained by a system, e.g., oppressive class relations, patriarchy, informality, dispossession, and poverty.

To explore the research problem stated above, I use three sets of empirical data and national and international media reports. I collected empirical evidence in 2017-2018 and 2021-2022 from 20 factories in Dhaka, Bangladesh. The next section highlights the background of the RMG industry, which originated and thrived in postcolonial Bangladesh. The third section discusses the relevant theories of labor control to develop the idea of social despotism. The fourth section presents methodology and data sources. The findings section is divided into four subsections, each describing a distinct phase of labor control. The paper then discusses the results, aiming to strengthen the theory of social despotism. This article concludes with a summary and recommendations to address the instrumental and structural oppression in the Bangladeshi apparel industry.

Background of the Bangladeshi RMG Industry

The Indian Subcontinent, formerly a prominent British colony, effectively entered the modern world-system in the late 18th century, when the British Raj introduced the concept of private property (Amin 2011; Baran 1957). Then the first major commodity was land, arguably a fictitious one, which could be bought and sold. The colonial administration then began to send a colossal amount of ground rent, along with a diverse range of raw materials, to their home, significantly fueling the British capitalist system (Amin 2011; Bagchi 1983; Baran 1957). According to world-systems analysis, England was a core and the Indian Subcontinent a periphery (Arrighi 2007; Wallerstein 2004). After the end of British rule in 1947, Pakistan and India became two independent nations. Bangladesh was then part of Pakistan and known as East Pakistan (1947-1971). Between 1947 and 1971, West Pakistan maintained a colonial relationship with East Pakistan (Khan 2011). Since 1971, Bangladesh has been an independent country.

Due to its colonial and postcolonial legacy, the Bangladeshi state experienced a variety of political regimes, including a one-party or socialist regime, 1971-1975, a clientelistic authoritarian or military regime, 1975-1990, and a vulnerable democratic regime, 1991-present (Khan 2011). During this time, the dominant political system in this country is patron-clientelism, where power,

² I define oppression as the formal or informal exercise of legal or illegal institutional power that serves to dominate, marginalize, or exploit a specific group or social community within a particular spatiotemporal context.

wealth, and resources are mostly distributed along party lines. Previously, Bangladesh's economy relied on foreign aid, but since the early 1990s, it has primarily depended on foreign capital and remittances. Some earlier significant policy reforms toward market liberalization or privatization, prompted and pressured by the World Bank, IMF, and ADB, were undertaken, including the Revised Investment Policy of 1975, the New Industrial Policy of 1982, the Revised Industrial Policy of 1986, and the National Industrial Policy of 1991. These policies genuinely promoted export-oriented industries. The Bangladeshi apparel industry, widely known as the Ready-Made Garment (RMG) industry, is one such prominent example.

In another context, this apparel industry emerged from the post-World War II relocation of the Western textile sector to developing countries, including Korea, Vietnam, and Bangladesh. This transition was caused by a combination of factors, such as stagflation (inflation and unemployment) in western societies caused by the overaccumulation of capital (Harvey 2003). In addition, urban riots, strong labor unions, labor unrest, and environmental laws impacted the profit margins of Western capitalists during the 1960s and 1970s (Smith 2016). In order to increase profit rates, Western corporations began relocating their plants abroad, where cheap and exploitable labor was available, and the market and state regulations were favorable (Bonacich and Appelbaum 2000; Fröbel et al. 1978; Mises 2014; Smith 2016). The development and growth of the Bangladeshi apparel industry is thus a typical example of how Western capitalists create new outlets to release their overaccumulated capital at home, or of how core regions exploit the cheap labor force of peripheral regions to achieve high profit margins.

The Bangladeshi apparel industry began operations in 1977 when two factories, Reaz Garments and Jewel Garments, opened in Dhaka and managed to export USD40,000 worth of merchandise to France and Germany in that first year (Ahmed, Greenleaf, and Sacks 2014:259). Another factory, Desh Garments, was built in 1978 and partnered with the South Korean manufacturer Daewoo. Since then, this industry, consisting of woven and knitwear sectors, has seen explosive growth in the volume of clothes produced and in its tremendous contribution to Bangladesh's economy. Today, nearly 4,000 apparel factories (in operation) employ more than 3.6 million workers, of whom 53 percent are women (Anner 2020; Moazzem and Radia 2016). Eighty-three percent of the country's total export earnings in 2022 came from this sector, and its contribution to GDP was more than 9 percent, some USD43 billion (Bangladesh Bank 2022). Bangladesh has the second-largest apparel industry in the world today, and the US is the second-largest importer of Bangladeshi apparel. Recently, Bangladesh has explored new trade partners beyond its traditional North American and European markets. These include Australia, Brazil, Chile, China, India, Japan, Korea, Mexico, Russia, South Africa, and Turkey (Akter 2019).

The 2013 Rana Plaza collapse did lead to some positive changes within the industry, particularly relating to safety and security (Bair, Anner, and Blasi 2020). Two major

organizations—Accord (consisting mainly of European buyers) and Alliance (North American buyers)—began working with the industry and the Bangladeshi state to improve fire, structural, and electrical safety in factories. However, they did not address industry-wide practices of worker exploitation, including violations of workers’ rights, poverty wages, and violent suppression of workers and labor leaders (Scheper 2017). In the first few months of the Covid-19 pandemic (December 2019- March 2020), three significant crises struck this industry: the supply of raw materials decreased while their prices increased, many buyers canceled orders, and payments to manufacturers were often delayed (Anner 2020). Workers were hit hardest – more than one million workers lost their jobs, of which 80.4% received no severance.

Two types of factories exist in Bangladesh: compliant and non-compliant. A compliant or contracting factory usually, but not always, complies with labor laws and the buyer code of conduct (Baral 2010). It produces goods for foreign buyers. In Bangladesh, nearly 74% of factories (currently in operation) are considered compliant factories (Moazzem and Radia 2016). Subcontracting or non-compliant factories do not follow any labor laws, do not protect labor rights, and do not adhere to the buyer code of conduct. They produce goods for locally compliant factories and foreign buyers. In Bangladesh, nearly 26% of factories (currently in operation) are known as non-compliant factories (Moazzem and Radia 2016). However, both compliant and non-compliant factories can be labeled as sweatshop factories, “a factory or a homework operation that engages in multiple violations of the law, typically the non-payment of minimum or overtime wages and various violations of health and safety regulations” (Bonacich and Appelbaum 2000:3). The RMG factories also meet another international standard for a sweatshop: wages fail to cover a “socially defined” or a “decent” standard of living and workers still fall below the official poverty line (Bonacich and Appelbaum 2000:4).

Theorizing Labor Control

Marx (1995) introduced the most systematic study of labor control under industrial capitalism. Although the next famous Marxist theory of labor control is found in Gramsci’s (1971) work, it was Braverman (1974) who renewed Marxist analysis of work under monopoly capitalism and provided an influential theory of labor control, widely known as “Labor Process Theory” or LPT³. These three theorists, particularly Braverman, have re-shaped most of the subsequent studies—both theoretical and empirical—of labor control from the late 1970s to date (Burawoy 1983, 1985; Edwards 1979; Friedman 1977; Littler and Salaman 1982; Knights and Willmott 1990). Since the late 1970s, two major theoretical trends of labor control are found under advanced monopoly or neoliberal capitalism: the theory of the New International Division of Labor (Fröbel et al. 1978;

³ Here, the LPT refers to the processes of managing and controlling work and workers inside a factory.

Mises 2014) and the global value chain approach (Appelbaum and Lichtenstein 2006; Bonacich and Appelbaum 2000; Dunaway 2014; Gereffi and Bair 2010; Hough 2010). In the following, this article reviews five theories of labor control, and then it critically engages with the theories to develop the idea of social despotism.

Market Despotism

Marx argues that capitalism produces an “accumulation of misery, agony of toil, slavery, ignorance, brutality, and mental degradation” and transforms the “workplace into a despotic, degrading, alienating environment” (Gurley 1980:31-61; Marx 1995:451). He (1995:286) shows that a capitalist, as a private legislator, uses “factory code” to exercise their autocratic power over workers. This code refers to a repressive regulation of workers, by which “all punishments naturally resolve themselves into fines and deductions from wages” (Marx 1995:286). Burawoy (1983:588) calls this “market despotism” or the “economic whip of the market.” According to Marx, market despotism emerges when workers solely depend on wages. This regime functions in the factory in three ways: it eliminates opportunities for workers to develop specialized skills, knowledge, and bargaining power; it increases the degree of exploitation of workers to sustain competition in the market; and it creates a “dangerous and unwholesome” factory environment by the systematic robbery of space, light, air, and other facilities (Marx 1995:286-290).

Ideological Hegemony

Gramsci argues that capitalists maintain their domination over workers by creating a hegemonic ideology, which generates “consent within the workplace and other spheres of economic life” (Degiuli and Kollmeyer 2007:500). According to Gramsci (1971), hegemony is a cultural, moral, and ideological authority by which capitalists dominate power relations and justify class oppression. He (1971:206-278) also shows that capitalists engage civil society and political society to construct consent in favor of capitalist exploitation and gain consensus over conflicting issues. Due to this hegemony, social classes, including the working class, embrace capitalism over alternative social systems such as social democracy and communism.

Like Gramsci, Harvey (2005:39-63) argues that capitalists employ think-tanks and academia to construct politically and culturally acceptable “common sense” in broader society. According to Harvey (2005:39), this commonsense disguises “real problems under cultural prejudices” and justifies the oppression of workers, dispossession of peasants, or even killing of people all over the world. Drawing on Gramsci, Degiuli and Kollmeyer (2007) also examine how the Italian “temporary help industry” control workers through ideological hegemony. The authors (2007:501-506) show that many corporations have developed “new modes of controlling and influencing the behavior of their workers” by empowering lower-level workers to make decisions

in the company. Because of this, workers “voluntarily regulate their own behavior” and internalize organizational norms and management skills. This replaces the “explicit and bureaucratic” forms of labor control in the firms by creating a “new culture of work”—a prospect of permanent employment among part-time workers.

Managerial Hegemony

Harry Braverman (1974) argues that the modern technical management of work, such as mechanization and automation, dominates employees in the workplace. According to Braverman, “the separation of the conception (management) from the execution (labour) of tasks...provides the driving motive for the modern organisation and control of the labour process” (Knights and Willmott 1990:7). Moreover, Braverman shows that the scientific management of work, known as Taylorism, restricts workers from developing creative skills and forces them to merely learn using the machine to speed up production. This process blocks the path for upward mobility in the workplace and diminishes workers’ bargaining power. This idea corresponds to Braverman’s thesis on deskilling and management strategy: on the one hand, the “extreme concentration” of knowledge (e.g., scientific, technical, and engineering) in the hands of management, on the other hand, an “awfully inadequate” set of skills (e.g., a particular and repetitious task, specific dexterity, and speed as skill) in the hands of workers (Knights and Willmott 1990:8).

Zhang (2015) examines the recent form of managerial hegemony by taking examples of three Chinese companies: Huawei, Joyea, and Tecsunhomes. He (2015:207) shows that management offers and promises various material incentives, including profit-sharing, on-the-job training, off-the-job programs, a certain degree of job security, several bonuses, upholding workers’ dignity, and even sharing leadership with the workers. According to Zhang, this managerial philosophy has built consent and trust between authorities and workers.

Hegemonic Despotism

Burawoy (1983) identifies a crucial form of labor control in advanced capitalist countries based on his fieldwork in two factories in Chicago and Manchester. He (1983:590) discusses the new role of workers in the state-capital-labor relationship: “Workers must be persuaded to cooperate with management. Their interests must be coordinated with those of capital.” In other words, workers must abandon their interests on behalf of capital and give consent to be exploited by capital. Due to this new labor-capital relationship, consent prevails over coercion in the workplace. This process is called the “making-out” game: a game that generates consent to its rules of exploitation at the point of production (Burawoy 1985:11-30; Knights and Willmott 1990:19). Burawoy (1983) warns that capitalists can be despotic when workers, who solely depend on wages, are found uncooperative and a threat to capitalist accumulation. In this case, employers would seek

no consent from the state or labor unions to relocate their plants overseas or exercise coercive power over workers to terminate them. Burawoy (1983:588) calls this hegemonic despotism and claims that “anarchy in the market leads to despotism in the factory.”

Lee (1995) reconstructs Burawoy’s theory by taking a gender lens and drawing on empirical evidence from two factories in Shenzhen and Hongkong. She (1995:378) finds two different labor control regimes: “localist despotism” in Shenzhen and “familial hegemony” in Hongkong. Unlike Burawoy, she shows that though women workers in the Shenzhen plant have ties to their agricultural life and are not entirely dependent on wages, a despotic regime emerges. Despotism exists because of an abundant supply of cheap labor and the state’s minimal intervention in the local market system. In the Hongkong plant, familial hegemony prevails because women workers do not have access to secondary supports from employers or the state. Beyond their wages, workers depend on their families and social networks. The management appreciates the contributions of workers’ families and creates a family environment on the shop floor. This shop floor environment constructs workers’ consent to their exploitation.

The Global Hegemonic Despotism

Neoliberal globalization has created a global hegemonic despotic regime of labor control. Under this regime, labor control can be understood through the lenses of the new international division of labor (NIDL) and the global value chain (GVC)⁴. The NIDL framework examines the reorganization of worldwide manufacturing production and the global labor market in the 1970s (Charnock and Starosta 2016; Fröbel et al. 1978; Mises 2014). It identifies various labor processes in traditional societies. First is the entrance of several hundred million penniless jobseekers, known as the “worldwide industrial reserve army,” into new industrial sectors (Fröbel et al. 1978). Second, the adaptation to long working days, high intensity of work, low wages, and physical and verbal assaults. Next is the fragmentation of job sectors: the skilled labor force is replaced by the unskilled or semi-skilled labor force. The fourth is the exploration of young females as “the cheapest, most docile, and most manipulable” workers who are easy to control politically and ideologically (Mises 2014:114-116). The last mechanism is developing an international superstructure (e.g., IMF, GATT/WTO, World Bank, UNIDO, and FAO) to oversee trade between industrial and developing countries. Additionally, the NIDL approach argues that the capital secures “monopoly over knowledge to control each phase of labor process” and teaches the

⁴ Along with these two lenses, other explanations exist under this regime. One example is Nair’s (2016) study of labor control in neoliberal India. She shows that market fundamentalism under neoliberal capitalism dismantled all forms of workers’ resistance in India by removing the democratic capacity of workers to organize themselves for their own interests.

workers various capitalist virtues, including subservience, obedience, punctuality, and diligence (Fröbel et al. 1978:129).

Scholars define the GVC approach as a methodology for studying power relations between global actors and local firms, focusing on six major segments of a global industry: research and development, design, production, distribution, marketing, and sales (Gereffi and Christian 2010; Porter 1985). This framework examines how Western buyers dominate and exploit the local suppliers and workers in the global south countries, maintaining backward and forward linkages to power relationships in a particular global value chain and creating a new “global economic governance” (Bonacich and Appelbaum 2000; Gereffi and Bair 2010; Gereffi and Christian 2010; Gibbon, Bair, and Ponte 2008). In addition to global buyers, other actors participate in GVC, including multilateral agencies, regulatory bodies, NGOs, governments, unions, and trade associations. One study following the GVC approach conducted by Mark Anner (2015:292-293) explores three models of labor control practiced by the top ten global apparel exporters: state labor control regime, market labor control regime, and employer labor control regime. Anner shows that the state labor control regime uses legal and extra-legal means to eliminate potential or actual collective action in the factory. He provides examples from China and Vietnam. The market labor control regime, dominated by marketers or buyers, uses local factory owners to threaten workers with a factory shutdown if workers enter into labor unions and hurt the interests of capital. Thus, firms in low-income countries (e.g., Bangladesh and Indonesia) justify their repressive labor control strategies by arguing that they lack bargaining power with buyers because of the fear of capital flight. Finally, the employer labor control regime is highly repressive because employers use violent means to control workers. Honduras, El Salvador, Guatemala, and Colombia have examples of this regime.

Social Despotism

I draw on Wright’s (1978) typologies of capitalism—manufacture, machinofacture, monopoly, and advanced monopoly—to argue that different phases of capitalism created distinct regimes of labor control to govern and exploit workers in advanced industrial countries. First, for example, manufacturing capitalism (1760-1950) created market despotic (coercive) and ideological hegemonic (consensual) regimes to control workers. Second, machinofacture capitalism (1950-1970) adopted a managerial regime (negotiated consent) to govern workers. Third, monopoly capitalism (1970-1990) employed a hegemonic despotic regime (coercive consent) to gain the support of workers for the interests of capital. Fourth, since 1990, advanced monopoly capitalism has shifted its full attention to developing countries (e.g., African, Latin American, and Asian regions) and has been exercising a global hegemonic despotic regime to exploit millions of workers. Bangladesh, as a periphery region of the world-system, became part of this advanced

monopoly capitalism in the early 1990s. Since then, this type of capitalism (or in the form of neoliberalism) has provided capital and industrial prescriptions to Bangladeshi manufacturers and created a new regime of labor control (i.e., social despotism) to govern and exploit workers at the bottom of the global value chain.

Existing approaches to labor control discussed above do not fully explain this new regime for several reasons. First, they fall short of understanding how market institutions (or market actors) need the support of social institutions (non-market actors) to manage, govern, and exploit Bangladeshi apparel workers not only inside but also outside factories. Next, those theories remain unclear about how market and non-market actors create and recreate different phases of labor control in the apparel industry, how they dominate workers who are highly reactive to experiences of oppression and discrimination, and how they exploit workers who are highly conscious of their rights and benefits. Lastly, the extant literature lacks a coherent theoretical framework for analyzing power relations among market/non-market actors and workers at the bottom of the global value chain. Therefore, I propose a new theory of labor control. This theory explores four phases of labor control in the apparel industry: searching for the cheapest laborers and manufacturing sites, recruiting workers, organizing work, and socializing, rewarding, and punishing workers. Each phase is distinct in terms of its role in the process of labor control, but they are interrelated.

Labor control begins when Western capitalists seek to find the cheapest sources of labor, making capital available to manufacturers and providing guidelines to process work and workers. Also, in this phase, local manufacturers develop formal and informal relationships with foreign buyers, international certifiers, raw material suppliers, and state agencies to build factories suitable for effective labor control. Second, factory owners recruit a managerial team capable of gaining control over workers. This executive team recruits workers by following factory owners' guidelines and using their local and personal ties to communities and workers' families. Next, authorities organize the work in a factory to maintain a balanced division of labor, maximizing workers' output and eliminating actual and potential obstacles to profit generation. Finally, the managerial team socializes, rewards, and punishes workers inside factories by deploying various strategies and developing informal relationships with different social actors. These workers are also socialized and punished by police, thugs, labor leaders, coworkers, slumlords, friends, and family members.

Two forms of oppression⁵ exist in the four phases of labor control: instrumental oppression—practiced by market actors, and structural oppression—practiced by market and non-market actors. First, instrumental oppression is defined as both formal and informal systems of labor control that normalize coercion on the shop floor and create the forced consent of workers to their exploitation. This oppression increases the profit rate by effectively exploiting workers and reproduces workers’ sense of collective vulnerability as a class. It eliminates any form of collective action within the factory despite the persistence of workers’ radical common sense against their oppression, what Copeland (2019) calls “radical pessimism.” Workers cannot escape this oppression because of their sole dependency on wages and their marginal conditions in social life. At this juncture, workers’ entire world is reduced to two options: work or starve.

I define structural oppression as a condition where workers experience various forms of physical assault, threats, bullying, stigma, negligence, and powerlessness in their homes, streets, slums, or broader social arenas. This oppression is structural because it is practiced and maintained not by a person but by a particular configuration of structural violence: e.g., oppressive class relations, patriarchy, informality, dispossession, extreme poverty, exclusion, and corruption. Due to this oppression, workers cannot exercise their agencies in the broader social arena. For example, industrial police, border guards, and thugs prevent workers from protesting their oppression in the streets. Likewise, workers are prevented from exercising their agency in their living places (slums) because slumlords keep them under the constant threat of eviction. Thugs and slumlords also spy on workers, preventing them from giving interviews to local/foreign media or researchers. Street men often sexually harass women workers during their daily commutes from the slum to the factory and back to the slum. Despite their significant financial contribution to the family, women workers often lack decision-making power and experience domestic violence. They also bear the burden of housework, including caring for children, cooking, and washing. These forms of structural oppression make workers vulnerable in broader social arenas and reinforce their vulnerability in the factory.

Both forms of oppression reinforce each other to serve the interest of capital, creating the very regime of labor control: social despotism. I define social despotism as a coercive process of creating surplus values by exploiting workers’ labor power inside factories and controlling workers’ inside and outside factories. This regime deploys legal means, illegal coercion, informal power relationships, and structural violence to control and exploit workers.

⁵ My study extends the idea of “structural violence”—any structural or impersonal situation in which people cannot achieve capacities to their full potential (Galtung 1969)—by developing two key concepts: instrumental oppression and structural oppression. Moreover, I use Copeland’s (2019) idea of “radical pessimism”—a shared desire for radical change combined with the belief that meaningful change is impossible—to understand both forms of oppression.

Methodology and Data Sources

This article uses three sets of empirical data⁶ (life histories, interviews, and ethnographic observations) as well as national and global media reports to understand how market and non-market actors dominate and exploit workers in the Bangladeshi RMG industry. Between 2017-2018 and 2021-2022, using purposive and snowball sampling, I collected the life histories of 50 workers, 35 women and 15 men, who live in Dhaka, Bangladesh. At the time of the interviews, these 50 workers were employed in 20 factories that collectively employed a total of 11,200 workers. These workers also had previous experience working in 32 factories in various sites of Dhaka, including Panthapath, Mirpur, and Ashulia. Of 20 factories (Table 1), seven are contracting (compliant) factories and 13 are subcontracting (non-compliant) plants.

I collected the life histories from 13 slums while visiting workers' homes⁷ during off days. We talked about a wide range of topics, including how managerial teams search for and recruit workers, the environment and organization of work within the factory, remunerations, rewards and benefits, socializing and punishing methods, labor rights, workers' participation in labor movements, and workers' family life. The interviewed workers range in age between 18-47 years. They started working between the ages of 12 and 17 and changed their workplace between 2 and 6 times. In addition to visiting homes, I spoke with many workers while walking with them in the streets, observed the recruiting process of workers in front of or inside factories, and participated in protests in the streets.

I visited five (5) factories⁸ to collect data from managers, supervisors, and HR officers and observe workers at work on the shop floor. I then interviewed eight (8) people, including three factory managers, three supervisors, and two HR officers. I also interviewed 12 people from different professions, including two media persons, two bureaucrats, two politicians, two scholar-activists, two labor leaders, a slumlord, and a thug. I deployed purposive and snowball sampling methods to identify and interview 20 people. We talked about various issues related to the RMG industry, including buyers' formal and informal relationships with a compliant or non-compliant factory, the role of factory owners and managerial teams in the industry, the nexus between firm

⁶ Two research assistants worked with me during this project to gather empirical data and process it afterwards. Additionally, all respondents' names, who participated in this empirical study, are kept anonymous to protect human subjects.

⁷ Since it is strictly prohibited to enter an apparel factory to interview a worker, I interviewed all of them at their home. I also spoke with workers when they were on streets or at factory gates.

⁸ I was granted access to only five (5) factories for interviews with factory authorities, despite approaching eleven (11). I relied on personal connections among workers or factory authorities to interview individuals in lower-, middle-, or upper-management positions.

owners and the state, and the engagement of labor leaders, politicians and workers in labor management.

In this paper, I use my ethnographic observations while working in 13 working-class territories (slums), 5 factories, and a few public offices and streets. I closely observed the work environment in the factories, work management by the authorities, workers' movements in the factories and streets, safety and security in the streets, and workers' struggles in everyday life. The article also relies on national and international media reports to understand labor control strategies in the Bangladeshi apparel industry.

Finally, Table 1 presents additional data relevant to the primary arguments made in subsequent sections. Specifically, it details the types of factories, total number of factory workers and interviewees, gender categories, age at work, and frequency of workplace changes, and examines how these factors relate to labor control strategies in the RMG industry.

Social Despotism in the Bangladeshi Apparel Industry: Findings

This section provides evidence of how social despotism is a powerful regime of labor control in the Bangladeshi RMG industry. I divide this discussion into four subsections, corresponding to the four phases of labor control.

Exploring the Cheapest Laborers and Manufacturing Sites

After 1970, western capitalists began hunting for the cheapest labor in the global south when their manufacturing plants faced severe challenges with strict labor and environmental laws, labor movements, urban unrest, overaccumulation of capital, and lower profit rates (Harvey 2003; Smith 2016). Some 155 years ago, Marx (1867) also observed this reality:

“In order to oppose their workers, the employers either bring in workers from abroad or else transfer manufacture to countries where there is a cheap labor force. Given this state of affairs, if the working class wishes to continue its struggle with some chance of success, the national organisations must become international” (quoted in Smith 2016:39).

Table 1: General Characteristics of the Factories and Participants							
Number and Type of Factories	Number of Workers	Number of Participants	Gender (Male and Female)	Age of the Participants	Starting Age at Work	Times of Changing Factories	
Contracting Factories (CF)	CF1	1,100	3	F2, M1	26, 34, 35	14, 14, 16	3, 5, 6
	CF2	800	3	F2, M1	20, 21, 33	13, 13, 15	2, 5, 5
	CF3	600	3	F1, M2	25, 29, 47	13, 14, 15	4, 4, 5
	CF4	600	2	F2	21, 28	13, 14	2, 6
	CF5	550	2	F2	31, 39	14, 15	4, 5
	CF6	500	3	F1, M2	23, 30, 44	12, 13, 15	3, 4, 4
	CF7	400	2	F2	26, 29	13, 15	4, 6
Subcontracting Factories (SCF)	SCF1	900	3	F1, M2	25, 27, 35	13, 13, 16	4, 5, 6
	SCF2	750	3	F2, M1	22, 25, 29	12, 15, 17	3, 4, 4
	SCF3	600	2	F2	20, 31	13, 16	2, 4
	SCF4	550	3	F3	19, 32, 46	13, 15, 16	2, 4, 5
	SCF5	550	3	F1, M2	26, 29, 33	13, 14, 16	3, 4, 4
	SCF6	500	3	F3	18, 26, 40	12, 12, 14	2, 5, 6
	SCF7	500	3	F3	23, 30, 36	13, 15, 16	3, 4, 5
	SCF8	400	3	F2, M1	19, 23, 37	13, 16, 17	2, 5, 6
	SCF9	400	2	F2	25, 30	13, 15	4, 6
	SCF10	450	2	M2	20, 36	12, 14	3, 5
	SCF11	400	2	F2	21, 30	14, 15	4, 5
	SCF12	350	2	F2	26, 47	13, 14	3, 6
	SCF13	300	1	M1	41	13	4
n= 20	N= 11,200	n= 50	n= F35, M15	Age= 18-47	Age=12-17	Av=4	

Source (Table 1): Author's Fieldwork in Dhaka, Bangladesh, 2017-2018 & 2021-2022

The appearance of the Bangladeshi RMG industry in the late 1970s was the direct result of the globalization of production (Smith 2016). This globalization has provided guidelines to control workers and maintain high rates of labor exploitation in developing countries, including Bangladesh (Harvey 2005; Copeland and Labuski 2013; Smith 2016). Labor control in the RMG industry begins with global buyers who provide capital to local manufacturers. In particular, they determine “what is to be produced, where, by whom, and at what price” (Fernandez-Stark, Frederick, and Gereffi 2011:7). An exploitative relationship between the north and south immediately develops, with northern capitalists dictating prices and wages to southern workers (see also Burawoy 1983:592). Smith (2016:12) accurately observes this reality in the Bangladeshi RMG industry: “capital-labor relation has become a relation between Northern capital and Southern labor.”

My interviews with Sifat Chowdhury, 54, a manager of a noncompliant factory and Khalil Ahmed, 41, an assistant manager of a compliant factory, revealed that western buyers, international certifiers, and the Bangladeshi state provide guidelines to factory owners to build and manage factories. Buyers and their local buying houses often suggest to factory owners how to influence the state to create business-friendly rules, earn tax breaks, access cheap labor, handle labor unrest, and secure the profit-generating system (see also Norfield 2011; Smith 2016). Buyers also urge the state to secure a permanent supply of cheap labor, guarantee union-free industry, uninterrupted delivery of goods, and special security for the industry. Once a relationship between buyers and suppliers is developed, local manufacturers mobilize their resources to build factories and initiate production.

Over 2,000 suppliers run nearly 4,000 factories in Bangladesh (Anner 2020). These suppliers maintain an informal relationship with more than 18 government organizations that approve building factories and are responsible for monitoring them (Imran 2020). This informal relationship allows factory owners to violate various laws, deprive workers of their rights, and exploit and punish workers. A well-known labor leader, Joly Talukdar, told a reporter that the Department of Inspection for Factories and Establishments (DIEF) “directly” serves the purpose of factory owners (Imran 2020). My participant, Keya Khatun, 62, a retired worker and a labor leader, also confirmed that the informal relationships between factory owners and state agencies create and maintain the unsafe, abusive, and exploitative factory environment in the RMG industry.

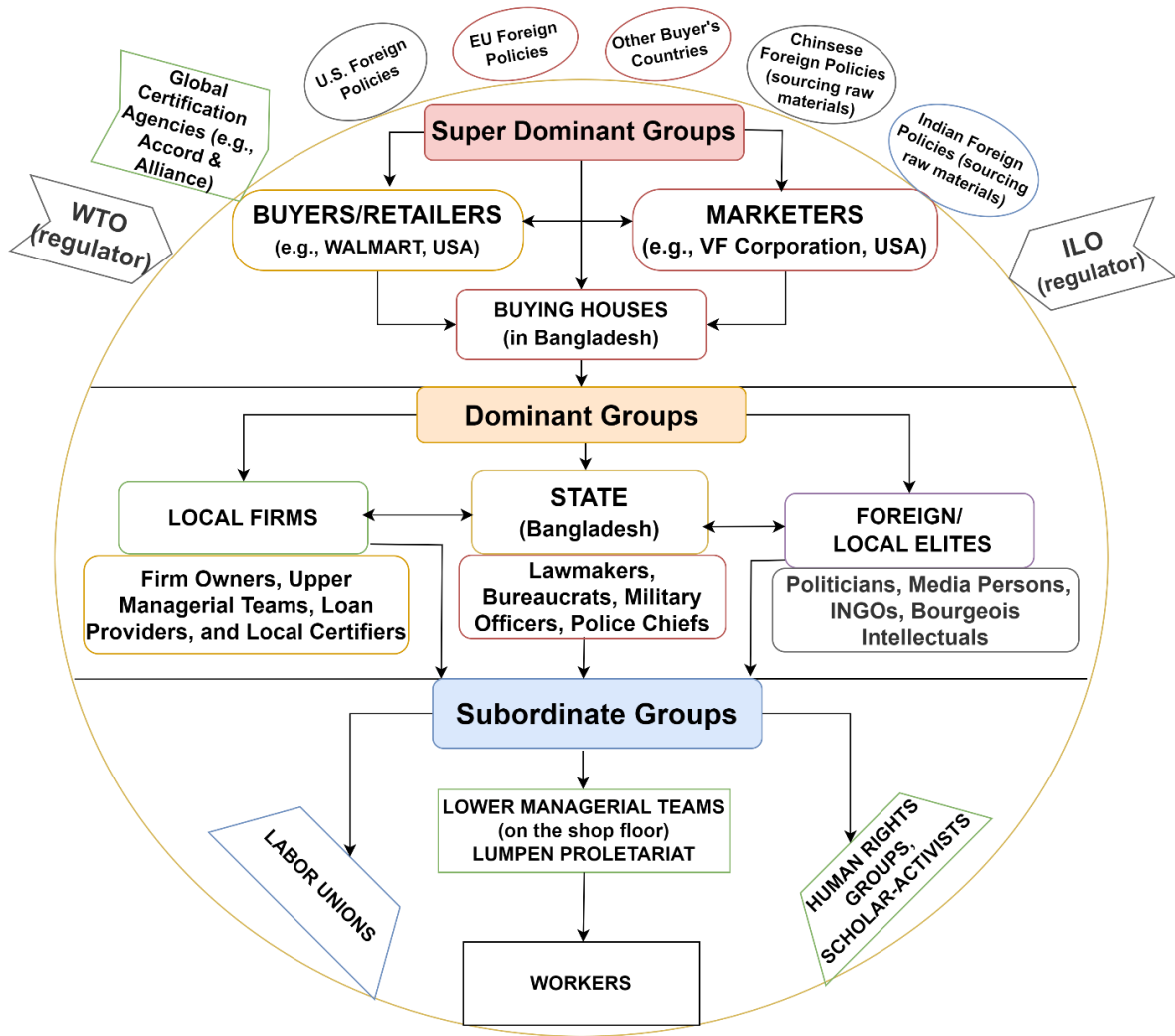
Western buyers work with both compliant and noncompliant factories, and compliant factories also place orders with noncompliant factories. Foreign buyers and local compliant firms know that subcontracting factories violate all labor and environmental laws. However, they place orders to those factories because their products are the cheapest. These factories have extremely poor physical environments: congested machinery, absence of fire exits and ventilation, limited or

no dining space and first-aid facilities, and an insufficient number of bathrooms. Marx (1995) calls this factory environment a “systematic robbery” of space, light, air, and other facilities. Rebeqa Sultana, 35, an operator in the sewing section, worked 16 years in four noncompliant factories. The owners of those factories repeatedly violated building codes and labor laws. They would bribe the safety and security team to avoid inspections and hide their factory locations from buyers, reporters, and researchers (see also Brooks 2007; Dannecker 2002).

Most factories have an informal expert team that uses political, economic, and cultural capital to lobby buyers or local buying houses for orders. This lobbying system creates unequal competition among factory owners, and no mutual agreements exist among suppliers for the proportional distribution of buyers’ orders. According to Mr. Chowdhury, the resulting competition among suppliers “annihilates the bargaining power of suppliers and empowers buyers.” It is also responsible for the world’s second-lowest wages and the most exploitative and oppressive labor control strategies in the RMG industry.

Finally, the relationship between Bangladeshi suppliers and marketers, buyers, trade regulating agencies, global certifiers, foreign states, raw materials suppliers, and local state agencies can be understood by the idea of social despotism. Under this regime, I identify two major groups that dominate power relations and influence labor control strategies in the value chain of the Bangladeshi apparel industry. First is the super dominant group, including the marketers (e.g., VF Corporation), retailers (e.g., Walmart), regulators or certifiers (e.g., WTO and ILO), foreign states (e.g., the US and the UK), and raw materials suppliers (e.g., China and India). Second is the dominant group, including local manufacturers, upper managerial teams, state agencies, local certifiers, loan providers, and INGOs. In this value chain, the subordinate group includes lower managerial teams, unionists, workers, and local human rights organizations. In short, the power relations (both formal and informal) that influence labor control strategies in the RMG industry can be understood by the following diagram (Figure 1).

Figure 1: Power Relations in the Global Value Chain of the Bangladeshi Apparel Industry



Source (Figure 1): Author’s Fieldwork in Dhaka, Bangladesh, 2017-2018 & 2021-2022

Recruiting Workers

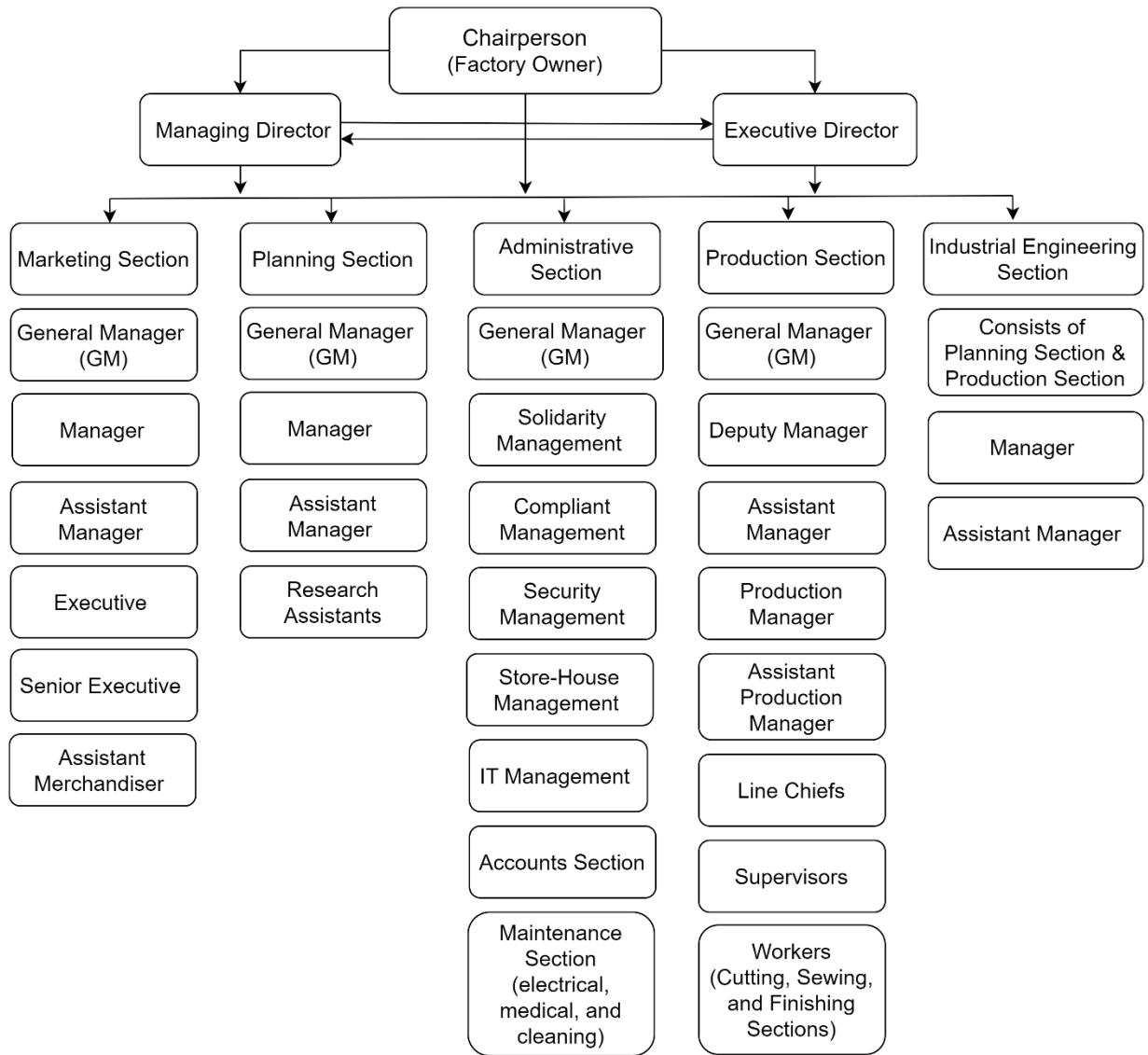
My interviews with Mr. Chowdhury, Mr. Ahmed, and several workers revealed how formal and informal hiring practices are closely connected with labor control. An owner of a complaint factory, known as the chairperson, recruits a few directors (e.g., managing and executive) who are usually from their family networks. This directorate board usually recruits five managerial teams under five sections (Figure 2). The sections include marketing, planning, administrative, production, and industrial engineering (IE). The marketing, planning, and IE sections deal with global buyers, local buying houses, local firms, international certifiers, buyers’ countries, and states of raw materials suppliers. The administrative section deals with the local state, police, HR

officials, and security persons, to name a few. The production section directly works with workers. Under this section, a managerial team, consisting of a general manager (GM), deputy manager (DM), assistant manager (AM), production manager (PM), assistant production manager (APM), line chiefs, and supervisors, controls and oppresses workers in a factory.

The directorate board of a factory follows a formal process, including a public job advertisement, to recruit upper managerial teams (GM, DM, and AM) under each section. While hiring these teams, the directorate board also considers informal aspects, including the political identity of a potential employee, their connections to the factory owner, affiliations to the state agencies, administrative work experience, attachments to the industry or local communities, and personal reputation. These upper managerial teams recruit lower managerial team members such as PM, APM, supervisors, line chiefs, trainers, experts, and other HR officials. They also follow formal and informal processes to recruit these employees, including job advertisements, personal networks, loyalty, and efficiency in handling workers. These recruiting practices are crucial to a factory's success because these people organize, control, and oppress hundreds or thousands of workers in a factory.

The recruiting process for workers is entirely different. The lower managerial team recruits workers by following their employers' guidelines and also their personal ties to the industry and communities. Prospective workers physically gather in front of a factory. Then, the lower managerial team comes to the gate and asks a few questions to select workers from the gathering. Once they find a group of workers who fulfill their initial hiring criteria, they take those people inside the factory. Those workers are then asked to show their skills. If the hiring authority likes someone's work, they get the job. This hiring practice of workers is mainly for the cutting, sewing, dyeing, washing, and finishing sections. The authority also employs apprentice workers (also known as "helpers") from this gathering. They recruit all new workers on a specific day of each week or month. Another hiring practice is that the existing workers bring new workers from within their personal networks. The recruiting authority mostly hires workers from the factory owner's local areas to minimize labor unrest in the factory (see also Dannecker 2002; Paul-Majumder and Begum 2006). Samia Tanni, 37, an operator in a subcontracting factory, revealed that "99 percent of workers in her factory came from the local area of the factory owners." Many of the managerial team members also came from the same area.

Figure 2: Organizational Structure of Employers and Employees in a Compliant Factory



Source (Figure 2): Author’s Fieldwork in Dhaka, Bangladesh, 2017-2018 & 2021-2022

Age is an important factor in hiring and controlling workers. Recruiting women and men workers under 18 is always profitable to the factory because they are incredibly low-paid, easily manageable, and reluctant to participate in protest movements. According to the Bangladesh Labor Act 2006, hiring a worker below 14 is illegal in the formal sector. However, my interviews show that 42 percent of workers (21 of 50) started working in a factory before the age of 14, and the other 58 percent did so at the age of 14-17. Sifat Ara, 40, a sewing machine operator in a subcontracting factory, revealed that recruiting authorities follow specific strategies to hire

underage workers. In many cases, supervisors tell their current workers to bring their underage family members to work as helpers. They put those freshman workers on temporary payroll and pay way below regular workers. Also, existing workers often request that their supervisors hire their underage daughters or family friends. The third strategy is for factories to recruit underage workers directly from the factory gate. In all cases, these girls and boys collected false birth certificates to show the hiring authorities that they were above 18. Ms. Ara began working at the age of 12 as a helper in a factory. She reported, “I brought my daughter to the factory four years ago when she was 13 years old; now she is 17.” Although they work in the same section and do the same work, her daughter is paid 30 percent less than her (see also Kabeer 1991; Kibria 1995). Ms. Ara also mentioned: “I have never seen any freshman worker attend a protest against factory owners. I also advised my daughter not to take to the street for any protest movements.” Family members or senior workers also advise underage workers not to risk their jobs by attending a protest movement.

Recruiting underage workers in order to make a higher profit rate has been a strategy in place since the inception of this industry. A survey of 3,000 households in Dhaka slums revealed that most girls (and 13 percent of boys) below 14 are employed in the apparel industry (Overseas Development Institute 2016). Maria Quattri, one of the authors of the Overseas Development Institute report, told NPR that these underage workers mainly work for “subcontractors in informal garment factories that produce a part of the product that is then sold to formal businesses. And the formal businesses export the product” (NPR 2016).

Finally, factories recruit a group of employees called thugs—what Marx identified as “lumpen proletariat.” According to Habib Hosen, 38, a worker in the finishing section of a subcontracting factory, thugs are not regular workers but work both inside and outside a factory. Some of their tasks include spying on managerial teams and trade union leaders inside factories, threatening disobedient workers in factories, streets, and slums, crushing labor unions, and tackling external gang threats to a factory.

Organizing the Work

The authorities organize work in a factory by creating and maintaining a balanced division of labor, developing an effective strategy of labor control. This organizing principle of work is designed to maximize output from workers, eliminate obstacles to work, and increase profit rates (see also Braverman 1974). A balanced form of division of labor in an apparel factory has a primary and a secondary dimension. The primary dimension refers to the major sections of work in the factory, including marking, cutting, sewing, and finishing sections. All workers are organized under these broad sections. The secondary dimension refers to the further segmentation of work under each section. For example, a worker in a sewing section does only one small part of the total sewing

work: either sewing only one pocket, attaching a zipper, or fitting buttons for a pair of jeans. No two people do the same job in any section. This form of division of labor automatically keeps workers busy and ensures that they reach their hourly or daily output target. It gives workers no break when the work is in progress (see also Bonacich and Appelbaum 2000:179). Additionally, supervisors, floor in-charges, and line chiefs monitor workers' production output every single moment. This vigilant supervision also ensures that workers meet production targets.

Diya Najnin, 21, works in the finishing section of a compliant factory and folds shirts or pants. The daily target for their group of nine is completing 2,000 individual packages of shirts or pants in eight hours. Because of this work arrangement, Ms. Najnin reported, "no worker finds any scope to get even a glass of water or go to the bathroom." She also mentioned: "sometimes I feel like I am in a prison cell and am a criminal without human rights."

Another dimension of labor control is offering workers different wage grades (grade 1-grade 7) based on the types of work and workers' skills or informal connections to employers. A wage board determines minimum wages⁹ for workers in the RMG industry. A senior district judge leads this board, joined by representatives from employers and workers and approved by the Law Ministry and the Ministry of Labor and Employment. The country's first wage board for this industry was formed in 1984, and \$7.67 was set for monthly salaries for the freshman workers in the 7th grade. In 1994, the minimum wage in the 7th grade was \$12.57, followed by \$21.87 in 2006, \$37.5 in 2010, \$66.25 in 2013, and since 2018, it has been \$96 (in contrast, it has been \$217 for the 1st grade). However, in the past few years, the value of the Bangladeshi currency has decreased compared to the US dollar (USD 1=BDT122), causing a decline in value (or wages) from \$96 to \$65 and from \$217 to \$150. This is the world's second-lowest minimum wage after Sri Lanka, what scholars call "starvation wages" or "poverty wages." The living wage calculation by Asia Floor Wage Alliance¹⁰ shows that \$66.25 wage in 2013 covered 20% percent (after adjusting the price inflation) of living cost for a family of four—a garment worker, one adult, and two children and \$96 in 2018 covered 22% of the living cost for such a family. A study explores this extreme form of unequal practice of profit sharing in the RMG industry: buyers and factory owners withdraw up to 65 percent and 31 percent of profit respectively from this industry, but workers receive only four percent of the profit (Salam and McLean 2014:3-4).

My interviews with a production manager, Nizam Molla, 45, a labor leader, Faizul Hasan, 40, and a worker, Hasina Banu, 27, revealed that the division of labor refers to various forms of power distribution in the factory. First, there is a vertical dimension of power where the upper managerial team exercises power over the lower managerial team and workers, and the lower

⁹ Minimum wages refer to "the lowest amount of remuneration given to a worker in a specific sector by employers" (Ovi 2019).

¹⁰ This calculation can be found here: <https://asia.floorwage.org/our-work/#top>

managerial team exercises power over workers. Next, there is also an informal way of practicing power in the factory. For example, a member of the managerial team, who is somehow closer to a factory owner, can exercise more power than other managerial team members. Similarly, a lumpen proletariat can even exercise power over a managerial team or workers if a factory owner empowers them. According to Mr. Molla, “sometimes we receive threats from our junior staff members or even from workers who maintain a close connection with the owner of the factory.” Those with connections to ownership, regardless of their formal position in the hierarchy, serve as informal sources of power and control within the factory. Mr. Hasan revealed that a few labor leaders secretly maintain a good relationship with the authority and provide information about tensions among workers. Though these labor leaders are senior workers in the factory, most workers do not trust them because they serve the owner’s purpose more than they help workers. Ms. Banu experienced physical abuse and threats on multiple occasions from her co-workers. She describes this as a “common incident” on the shop floor.

Third, there is a gender dimension to how power is practiced unequally within the factory (Ahmed 2004; Ahmed 2018; Brooks 2007; Dannecker 2002; Feldman 2009; Kabeer 1991; Kibria 1995; Lee 1995; Mises 2014; Paul-Majumder and Begum 2006). Men usually dominate both groups of the managerial team. Also, male workers dominate the marking, cutting, washing, dyeing, and ironing sections. However, women workers dominate the sewing and finishing sections. During financial crises, such as the COVID-19 pandemic, workers in the sewing and finishing sections are disproportionately affected. They often experience irregular wage payments and accumulate unpaid working hours. Due to this gendered organization of work, male workers receive higher wages than women workers. Fajila Khatun, 26, an operator in the sewing section, revealed that the authority mostly hires women for the sewing and finishing sections. She recounts: “supervisors want an obedient woman but a strong worker in the factory. They want a woman worker who can handle a sewing machine like a strong man.” She left her job twice earlier because of this unrealistic demand for production targets and low pay. She used to weep every day after returning home from work. However, her needy family cannot allow her to stay home, nor can she find a new job in another sector.

Controlling leave for medical conditions or maternity purposes is another way of organizing work and controlling labor. For example, Jamila Begum, 34, a worker in the finishing section, took maternity leave and medical leave last year. In total, she got 110 days of maternity leave and 14 days of medical leave. She reported that “my pregnancy leave was paid, but my supervisor gave me TK15,000 (\$180) instead of TK30,000.” The reason is that “my supervisor discouraged me from having a baby.” She was very unhappy with that 50 percent of paid leave, but she could not protest this due to the fear of job loss. Another labor control strategy is giving workers a lunch break at different times across different floors and sections. This limits the chances

of workers from one floor or section meeting with workers from other floors or sections, thus minimizing the possibility of labor movements forming within the factory.

Socializing, Rewarding, and Punishing Workers

Market and non-market actors deploy various socializing, disciplining, and punishing measures inside and outside factories. In addition to the managerial team, various entities such as the mass media, co-workers, labor leaders, police, thugs, slumlords, friends, and family members participate in socializing, disciplining, and punishing workers. The following discussion is divided into two subsections.

Socializing and Disciplining Workers. In the sewing section of a non-compliant factory, a senior operator, Jorina Alam, 37, revealed that factory authorities used to deny their responsibility for the low wages paid to workers. She described the authority's narratives to the workers:

“We [the authority] are not paying you [workers] less, we are not stealing your wages, we are not demanding overtime work; buyers are making a profit on us, and we are helpless to them; we cannot bargain with them because they can leave us anytime; if they leave us, you will lose your job, we will lose our business, and the country will suffer a lot.”

By this narrative, the authority simultaneously creates a sense of collective interest and collective vulnerability to control workers in the factory. My interviews with managers, supervisors, labor leaders, media persons, state officials, activists, slumlords, and politicians reflect both senses. These thoughts directly guide the socialization processes of factory workers.

When buyers visit factories, managerial teams socialize and discipline workers in order to create a false image of worker satisfaction. The authorities announce the buyers' visiting date ahead of time, and they coach workers on how to smile and speak positively about the factory and management when responding to questions (see also Dannecker 2002; Brooks 2007). The authority also instructs workers to tell buyers that they are happy with their jobs and wages, that their wages are regularly paid, and that their families are totally dependent on their income. Mamun Biswas, 18, reported that when an inspection team visits the factory, the owner, the GM, and other vital people join them. The buyers walk from floor to floor and talk to workers. The authority always warns workers not to speak too much to buyers if they are called. According to Mr. Biswas, “during the inspection day, the authority grants child workers a forced leave without pay to hide them from buyers.” Moreover, if any worker tells the truth to the inspection team, they are fired immediately without any severance.

Factory owners also closely monitor and control access to the factory. The managerial team warns workers that they are not allowed to go outside once they are in the factory. The gateman maintains this rule very strictly. Close-circuit cameras constantly monitor workers' movements

and activities inside a factory and its vicinity. Bringing a mobile phone to the factory is strictly prohibited. Also, the entry of news reporters and researchers to a factory is highly restricted. The authorities instruct workers to share no information with media persons or researchers if they visit their houses in slums.

Bullying is another strong mode of disciplining workers in the factory. All the workers I interviewed experienced bullying by the lower or upper managerial teams. Mistakes do not go unnoticed and are always punished: if supervisors find any fault (i.e., alter) in any product, they have been known to throw that product (a shirt or a pair of pants) toward that worker's face and demand unpaid overtime work or simply cut the worker's hours. In this context, supervisors never hesitate to humiliate a worker in front of their co-workers. A supervisor's bullying of a worker warns other workers on the shop floor. Supervisors react aggressively because the upper administration also bullies them if workers fail to reach the production target. The failure of workers to reach production targets is considered a failure of the supervisor. Workers have become used to working and surviving under this systemic terror—an oppressive system normalized on the shop floor. Ms. Hannan called it “institutionalized terrorism.” She reported that “we are the most unfortunate people who have no way to avoid bullying and quitting the job. We came to Dhaka for this job after losing everything in the village.” Injuries from verbal assaults create a sense of worthlessness that does not end in the factory.

Workers are constantly socialized by their family members to consent to exploitation in the factory. Lipi Rahman, 20, a helper in a subcontracting factory, revealed that her parents often advised her to obey seniors, respect colleagues, and avoid conflicts in the factory. Accordingly, she never protested against her abusive supervisors. Instead, she blamed herself for her own fate of working in this sector: “Our creator has determined our fate; we cannot change it...He wants me to live and survive with this struggle.” She tolerates all injustices in the workplace in fear of losing her job and tries to make her family happy with her income. Comparable evidence has been observed among apparel workers in other developing countries (Brooks 2007; Feldman 2009; Karides 2015; Plankey-Videla 2012).

Sexual harassment of women workers by male members of the managerial team is an abusive form of controlling workers in the factory. Paton (2020) cited a research report of Labour Behind the Label in her NYT piece: “80 percent of garment workers in Bangladesh say they have experienced or witnessed sexual violence and harassment on the job.” My interviews with women workers revealed similar realities. Sadia Islam, 26, a worker in the sewing section, used to work very hard in the factory to avoid sexual harassment by her male bosses. But she experienced sexual assault twice: as a freshman worker seven years ago, and recently, when she applied for promotion from the 5th grade to the 4th grade. She also witnessed at least 10 cases of sexual harassment by male supervisors and co-workers over the years. She further revealed that “the authority never

informed police about these incidents; they themselves resolved the cases.” Ms. Islam’s account demonstrates that young police officials usually engage in sexual harassment of young women workers in public spaces such as streets and slums. Thugs also regularly harass women workers in the streets. According to Ms. Islam, although many women workers wear burka¹¹ or hijab¹² when they walk from home to factory and factory to house, they cannot avoid sexual harassment.

Police are also involved in the coercive socialization process of workers. They often threaten workers to prevent them from joining protest movements in the factory or street. Nadia Nahar, 32, a worker in the finishing section, received dozens of threats from the police when she tried to attend protest movements. Hired thugs spy on workers to prevent them from organizing or attending protest movements in the factory and street. Slumlords play a big role in socializing and disciplining workers by monitoring them at their homes to make sure they do not give interviews to local or foreign media and researchers. They restrict unknown persons from entering slums. They also deepen workers’ vulnerability in factories and society by regularly increasing rent for housing.

Rewarding and Punishing Workers. My interviews with Shakil Haque, 53, a manager of a compliant factory, Farid Akter, 39, a supervisor of a non-compliant factory, and some workers revealed a wide range of strategies for rewarding and punishing the managerial team and workers. The factory owners set various goals for the managerial team to achieve, including the effective management of work and workers. The administrators who successfully organize and control workers are rewarded by factory owners, but those who fail are punished with delayed promotions or withheld bonuses. Likewise, obedient and productive workers are rewarded by the managerial team, while disobedient workers and “troublemakers,” e.g., labor leaders, are punished.

There are various rules for rewarding workers who exceed their production targets, which vary markedly from factory to factory. If workers in a contracting factory can produce beyond their daily target level, they are offered extra benefits. These can include rewards such as adding 10 hours of payment to their monthly salary, two extra days of annual leave, five additional days of pregnancy leave, and a twenty percent increase of one major bonus. In subcontracting factories, workers do not receive extra benefits for their over-performance, but they receive their wages regularly (while most workers receive payments irregularly). This unpaid extra work gives productive workers hope that they will get promoted.

The promotion of workers in a factory is another kind of reward that reinforces labor control strategies. When helpers in contracting factories are found to be skillful, obedient, and productive, they are offered the position of operator. Operators, in turn, can be promoted to the

¹¹ An outer garment that covers almost the entire body, including the face and head, worn by a Muslim woman.

¹² A garment covering the hair, neck, and ears, but not the entire face or body.

position of supervisor. In subcontracting factories, this kind of promotion is rare. Most qualified workers remain in the same position for 5-10 years. Despite workers' continuous requests for a promotion, the authorities make verbal promises to them while taking no real action. If workers lose their patience, authorities ask them to leave the factory.

Rewards and punishments are also used to encourage workers to arrive early and to work extra hours. If a worker enters the factory even a minute late (8:01am) for three days a month, their salary is withheld for those days, and they lose TK400 (\$3.5) for such an absence. Fear of losing even a dollar for late entry makes workers anxious at home and on their way from home to the factory. Another source of reward or means of punishment for workers is the authority's control over granting overtime work. In contracting factories, overtime work is not frequent except during winter. Only obedient and expert workers are given the opportunity to work overtime and earn additional money. In a subcontracting factory, overtime work can be both a punishment (if it is unpaid) and a reward. Before the Rana Plaza incident in 2013, coercive and unpaid overtime work (3-4 hours) was normal. After 2013, some factories began paying workers for overtime work. Now, needy workers move from factory to factory, searching for the opportunity to get overtime work. They do so because their regular salary never covers even 25 percent of their living costs. For them, overtime means a reward, i.e., "some extra money." Shaila Monira, 27, an operator in a subcontracting factory, has been working overtime for nearly a decade because she cannot pay the house rent and send her children to school without this money. However, she warned that overtime has severe mental and physical health costs, including stress, trauma, insomnia, fatigue, restlessness, and constant fear of developing unknown diseases.

Another respondent, Ayesha Parvin, 22, a helper in a subcontracting factory, revealed that she works overtime to support her family. However, she feels dishonored and worthless when supervisors threaten her and force her to finish the work she could not do during a typical workday. She recounted: "If my supervisor finds any errors in my work, I must do that work without any pay after my regular office hours. If I resist that, he tells me not to come back to the factory tomorrow." According to Ms. Parvin, some supervisors behave like "ferocious animals." They behave this way for two reasons: they want overproduction from workers to show their performance to their bosses, and they steal hours from workers to increase their income.

Punishing workers for their involvement in protest movements is the worst form of labor control by factory owners. A report by Transparency International, Bangladesh (TIB) shows that workers organized protest movements in different areas of Dhaka in 2019 to raise their wages. Then factory owners filed 35 lawsuits against 5,000 workers and fired 10,000 from 168 factories (The Daily Sun 2019). However, there is no legal provision for filing a case against factory owners when they violate criminal, labor, or environmental laws. This free-pass allows factory owners to exercise coercive power over workers and violently dismantle protest movements. Smith

(2016:10) put it this way: “union activists are routinely blacklisted, beaten up, and subject to arbitrary arrest” in the Bangladeshi RMG industry. This violence exists in this industry because an “incestuous” relationship exists “between factory owners, politicians, and police chiefs in Bangladesh” (Smith 2016:10). A labor leader, Kamrul Sheikh, 41, informed that “factory owners are always ready to take violent action against protesters.” They request the state to deploy industrial police and even border guards to dismantle protest movements. Rehana Sarkar, 33, was brutally beaten by a police officer while protesting with her co-workers for a pay raise. She said that “This country has some police officers who act like terrorists.”

The authorities also deploy hired thugs who use informal violence to disorganize protest movements. These thugs patrol factories, streets, and slums to detect any clues indicating imminent labor unrest. Nasima Gafur, 32, an operator in a subcontracting factory, revealed that workers involved in protest movements are fired and blacklisted. They never get a job in any factory. Workers who have some connection with the administration dominate their co-workers. Lablu Miya, 30, a worker in a contracting factory, received a monetary offer from his supervisor to collect information about workers’ positions for a protest movement. He collected information not only from his factory but also from another factory. Aggrieved workers from one factory often contact workers of other factories to organize protest movements; thus, factory authorities try to prevent protests from spreading by targeting organizers at neighboring factories. Mr. Miya also threatened many of his co-workers when they did not share information with him.

Discussion

Three stories narrated at the beginning of this article help make the central arguments on social despotism. The Rana Plaza collapse explored an ideal example of social despotism responsible for killing over 1,100 workers and injuring over 2,500 laborers. While killing the workers by the owner of the factory is an example of instrumental oppression, workers’ inability to avoid joining the work on that day is an example of structural oppression. Shakila Jahan’s (46) story illustrated how she experienced instrumental oppression while working for 22 days as a machine operator without any compensation and generated a value of \$15,600 in 26 working days to receive \$96 as her monthly salary. Her intention to engage in aggressive street protests to address injustice within the industry exemplifies structural oppression or aligns with Copeland’s (2019) idea of radical pessimism. Zobeda Jannat’s story also described the typical life of a woman working under social despotism. She experienced all coercive socialization and punishment systems inside factories, including physical violence, bullying, threats, sexual assaults, and insults. She also experienced violence in the street (by police), slum (by thugs), and home (by her husband). Due to these instrumental and structural oppressions, she made multiple attempts to quit her job and divorce her husband, but failed.

In the first phase of labor control, we find that global buyers built an exploitative power relationship with local firms and local manufacturers deployed extreme measures to control workers. Two administrators, Mr. Chowdhury and Mr. Ahmed, shared their experiences of how the northern capital formally and informally exploits southern workers, taking advantage of instrumental oppression inside a factory and structural oppression outside a factory. Their stories also revealed that buyers directly contribute to creating these forms of oppression by offering workers the world's lowest wages. Three more stories also provided examples of instrumental and structural oppression. Ms. Talukdar's statement showed how various state agencies directly serve the interests of the factory owners by outright denying workers' rights. Ms. Khatun explored how an informal relationship between firms and 18 state agencies creates and maintains an abusive and unregulated factory environment to dominate workers. Ms. Sultana's story showed that two factory owners repeatedly violated labor and environmental laws to oppress workers and exploit their labor power. This phase further explored how labor control strategies are reinforced by the power relations among the super dominant group (e.g., buyers), dominant group (e.g., local firms), and subordinate group (e.g., workers).

In the second phase, the stories of Mr. Chowdhury and Mr. Ahmed further revealed the formal and informal recruiting processes of the upper managerial team and the lower administrative team, who effectively control and exploit workers through instrumental oppression. Several workers' stories also explored the processes of recruiting workers through exploiting informal networks and kinship ties maintained between employers and workers and between existing and prospective workers. Structural oppression makes it almost impossible for adults to remain jobless in the family and forces teenagers to also seek work in the factories. Manufacturers take advantage of this system. While all interviewed workers started their work between the ages of 12 and 17, Ms. Ara's story added an ideal case to this practice by showing how daughters (below 14) in workers' family experience structural oppression. Mr. Hosen's story showed how a group of employees called lumpen proletariats (or thugs) reinforce instrumental and structural oppression in this industry by helping maintain an extremely exploitative and repressive factory environment.

In the third phase, two dimensions of a balanced division of labor—primary and secondary—ensure an extremely exploitative and abusive work environment by organizing and controlling workers. Ms. Najnin's story described prison-like conditions in the factory, where maximizing a worker's output and generating a higher profit rate for the factory came at the expense of the workers' rights and lives. This is an example of instrumental oppression where workers are forced to work under a system called self-exploitation. The stories of Mr. Molla (a production manager), Mr. Hasan (a labor leader), and Ms. Banu (a worker) provided evidence of how the division of labor demonstrates the unequal distribution of power in the factory. They showed that the upper managerial team maintains exploitative power relations with the lower

administrative team and workers. The lower managerial team also maintains oppressive and exploitative power relations with workers. A thug can even exercise power over a managerial team or workers. These actors, the upper and lower managerial teams and thugs, directly reinforce the practice of instrumental oppression in the factory.

Across the industry, women workers are more severely affected than their male counterparts by instrumental and structural oppression. Within factories, they suffer from sexual harassment, threats, and verbal and physical assault, as well as monetary punishments such as wage discrimination, withheld wages, and forced overtime. Outside the factory, their structural oppression includes the lack of other employment opportunities, violence and harassment in the streets from police and street thugs, and violence and discrimination within the family. All the stories of women workers, including those of Ms. Khatun and Ms. Begum, depicted the cruel realities of social despotism in the RMG industry.

In the final phase, additional examples of instrumental oppression were presented, focusing on how social actors socialize, reward, and punish workers. Ms. Alam's statement revealed that the factory authority blamed buyers for paying a low wage to workers and warned them about capital flight if they demanded a high wage. Factory owners and workers considered this logic a matter of collective interest and vulnerability. Moreover, Ms. Alam and Mr. Biswas detailed how the managerial team used to socialize and discipline workers on the shop floor to give consent to exploitation. Ms. Monira's story showed how she experienced stress, trauma, insomnia, fatigue, and restlessness because of doing overtime work. Since no mistake in the factory goes unnoticed, workers are regularly bullied and forced to make up that work during overtime. This is why Ms. Parvin called her supervisor a "ferocious animal." Ms. Gafur's story revealed that workers who organize other workers are regularly threatened and blacklisted in this industry. Bullying, spying, torture, and threats make workers so vulnerable inside factories that they develop a "sense of worthlessness." This coercive socialization process seeks forced consent from workers to factory owners' exploitation, which Ms. Hannan called "institutionalized terrorism."

One prominent example of structural oppression in the last phase is that family members played a crucial role in socializing RMG workers. Parents, husbands, siblings, and even children often warn women workers not to get involved in any conflict or protest movement in the factory or the street. They even create a sense that working in a highly exploitative factory is a divine punishment for their misdeeds. Thus, a worker learns to tolerate bullies, insults, threats, sexual harassment, or even physical assault inside and outside a factory. Ms. Nahar's story showed another example of structural oppression by revealing how police and thugs harass women workers in the streets and slums, serving the interest of factory owners. Mr. Sheikh and Ms. Sarkar also showed how they became victims of police violence by joining peaceful protest movements. Since

workers have no legal right to complain against factory owners, the factory authority uses violence to dismantle any protest movement.

Finally, a notable example of both instrumental and structural oppression is evident in the actions of factory owners, who filed 35 lawsuits against 5,000 workers and dismissed 10,000 workers from 168 factories for participating in a protest movement to demand higher wages. This evidence demonstrates the vulnerability of workers within both market and social contexts. Overall, the preceding analysis indicates that a new labor control regime, referred to as social despotism, is present in the RMG industry. This regime perpetuates an abusive and exploitative capitalist system at the lower end of the global value chain and further consolidates the dominance of capitalism globally.

Conclusion and Recommendation

This paper has contributed to the global labor control literature by detecting five regimes of labor control: market despotism, ideological hegemony, managerial hegemony, hegemonic despotism, and global hegemonic despotism. However, its major contribution is to frame the idea of social despotism—a new regime of labor control to dominate firms and exploit workers in the Bangladeshi RMG industry. This regime functions in the four phases of labor control: searching for the cheapest labor force, hiring workers, organizing work, and socializing, rewarding, and punishing workers. Two forms of oppression are found in those four phases: instrumental and structural. While instrumental oppression normalizes coercion and demands forced consent of workers to their own exploitation, structural oppression marginalize workers' social existence and undermines their agencies. The interaction between these two forms of oppression constitute the very regime of labor control. The central function of this regime is to reinforce the modern world-system as a capitalist world-economy.

The RMG industry, the world's second-largest apparel industry, is the backbone of the Bangladeshi economy, absorbing more than four million workers and earning more than 85 percent of the country's foreign currency. However, this industry is a historical part of the highly oppressive global apparel industry functioning in the modern world-system. Hence the industry has the social despotic regime of labor control—a regime type created and sustained because of the formal and informal practices of labor control by buyers, certifiers, loan providers, states of the global north and south, manufacturers, co-workers, police, thugs, slumlords, and family members. Under this regime, workers work hard but fail to escape extreme poverty or create a sense of dignity in the factory or broader social life. This regime also maintains the worst form of injustice in the industry, where workers fail to make 22 percent of their living cost by their income since they receive only 4 percent of the industry's total profit share. Exploiting child labor is a gross violation of labor law and labor rights in this industry. Moreover, any collective action

against the interest of capital is highly punishable. Although all workers are the victims of instrumental and structural oppression, women bear most of the burden—they are the lowest-paid, malnourished, dishonored, socially stigmatized, and victims of sexual, police and domestic violence.

I conclude this article by offering some guidelines to fight social despotism. First, the state, manufacturers, and buyers must work together to raise the minimum wages for workers to \$300 monthly so workers can cover their minimum living costs. Second, improving working conditions in the industry is crucial to avoid fatal casualties like the Rana Plaza collapse and protect workers' health and well-being. Next, the international and national authorities must hold global buyers and manufacturers accountable for violating labor laws. Fourth, workers must have the right to take legal action against their employers or manufacturers. Fifth, recruiting child labor (below 18 years) must be stopped in the industry. Lastly, it is vital to allow workers to unionize to protect their rights and benefits.

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Acknowledgements: I thank all the anonymous reviewers and the editors of JWSR for their valuable contributions to this paper. My article also benefited from the critical comments I received after presenting the findings at the ASA Annual Meeting 2019. I also thank Nicholas Copeland, Dale Wimberley, and David L. Brunson for their constructive feedback on the draft manuscript.

Disclosure Statement: Authors have no conflict of interests upon submission of the article to the journal.

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Cheap Water, Catastrophic Costs The Political Ecology of the Oder's Transformation

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Abstract

This paper examines the 2022 Oder River ecological disaster through a world-ecology lens, arguing it is a localized manifestation of global 'Cheap Water' dynamics. It traces the river's transformation across centuries, from its early appropriation in eighteenth-century Prussia to its exploitation under Polish state socialism and its continued devaluation in post-1989 predatory capitalism. The analysis reveals how the state, as an 'inherently environmental entity,' consistently mediated the relationship between capital accumulation and water flows, treating the river as a 'free gift' for energy production, food cultivation, and waste disposal. The concept of 'Cheap Water' is introduced as modern water reconfigured and devalued by capitalist world-ecology, interconnecting the concepts of Capitalocene and Wasteocene. The paper demonstrates how historical geo-managerial practices, driven by economic and geopolitical imperatives rather than socio-ecological justice, created a 'sacrifice zone' in the Oder basin. The 2022 catastrophe, marked by mass aquatic death, exposed the fragility of this state-capital-science nexus and the inherent water injustice. The paper concludes by advocating for a re-politicization of water crises and a shift from control- and profit-oriented governance towards a more democratic, life-affirming, and justice-oriented approach, acknowledging the limitations of current localized solutions within the sovereign nation-state system.

Keywords: Cheap Water, World-Ecology, The Oder, 2022 Disaster, Capitalism



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Of the numerous planetary crises we are currently facing, there is one that often escapes public attention, perhaps because we know nothing about its potential scale or perhaps because we silently accept it as the obvious consequence of human activity (Linton 2010; Mencwel 2023). It is the water crisis in its many forms, from shortages to floods, from overuse to contamination (Neimanis 2017). More specifically, it is the crisis of modern water, stemming from the long-anticipated collapse of all the scientifically and politically backed managerial practices of the supply model (Linton 2010). It is also one of the many aspects of the contemporary crises of capitalism in the web of life (Moore 2015). The Oder, a transboundary river flowing through Poland, Czechia and Germany, serves as a critical case study, especially after its 2022 ecological disaster.

The water crisis is everywhere, but not every part of the world gets the same amount of scholarly attention. While the study of bodies of water in the Americas, Africa, Asia or Oceania has contributed much to political ecology, the plight of rivers in the capitalist West often seems less interesting, even though they too suffer the exploitation by the nexus of state, capital and science/technology. European rivers are good examples of the destructiveness of human capacity to transform the world that had emerged from evolutionary struggles (Harvey 2000). One of such bodies rarely described in political ecology literature is the Oder River. It is a river in a crisis that nobody in Poland had predicted as recently as the 1990s (Mencwel 2023). The latest expression of this crisis was the 2022 ecological catastrophe, when dumping too much post-industrial salinated water into the river caused a mass death of millions of aquatic lives. In 2025 this crisis is still not resolved and looms over the whole river basin once again with the images of multiple dead fish.

Rivers are among the most human-transformed environments and yet they are, at the same time, among the last bastions of biodiversity (Olaczek 2000). The Oder is still one of these and one of the last relatively near-natural large rivers in Europe (IGB 2020). “Relatively” is the key word here demonstrating how far the civilizational transformation of European rivers has gone, as large parts of the river had been transformed so heavily and so long ago that we can only approximate its original shape from geological, geomorphological and archeological studies (Wojewoda 2015). And even though it might not share the plight of the bodies of water on Madeira, it too is victim to the capitalist hydraulic engineering that began in the long sixteenth century (Patel and Moore 2017).

For the Polish journalist and activist Jan Mencwel (2023) the Oder is the most wronged river in Polish history. The river has, at one time or another, been the victim of every possible villain present in environmentalist discourses, i.e. the “enlightenment reason, specieism, modernity and modernization, scientific/technical rationality, materialism [...], technological change [...], multinationals [...], the world bank, patriarchy, capitalism, the free market, private property, consumerism [...], state power, imperialism, state socialism, meddling and bumbling bureaucrats, military industrial complexes, human ignorance, indifference, arrogance, myopia and stupidity, and the like” (Harvey 2000:214-215). It has been “pushed around” under the modern paradigm of water resource development and management and brought to the brink of catastrophe (Conca 2006).

The Oder is also Poland's most political river. The Vistula may have the stronger symbolic meaning, but it is the Oder that flows through three different countries, was key to the development of large parts of their territories, became a border river after 1945, but also floods often and carries enormous amounts of pollution and waste resulting in ecological catastrophes that impact the whole socio-ecological life in its basin. According to Christian Parenti (2016:178), "few forces call forth the state so consistently as water" and the Oder is a great exemplification. The transnational aspect of the river is associated with difficult bargaining situations and potential for conflict (Conca 2006), but it is mostly the capital-subjugated and control-obsessed state itself that causes the crises which it also fails to predict and react to accordingly. The river's body is at the center of the epoch-making character of scientific-technological river management that allows for "reviving, sustaining and advancing the rate of profit for capital" and for "the appropriation of geological and biological work [...] in cheap, and geologically or biologically significant ways" (Moore 2023). Historically, this work had been done by providing water for drinking and agriculture or providing kinetic force for the transportation of goods, but now it is mostly done by absorbing and transporting industrial, agricultural and urban waste.

The article is an attempt to answer the call made by a trio of Polish scholars in 2022 to study the Oder through a *longue durée* perspective—something that is lacking from the otherwise sizeable, yet fragmented and reductionist body of research on the river (Buko, Gaziński and Makowski 2022). It connects with other approaches to study the politics of rivers, such as the research on the water-energy nexus or water justice studies (Weinthal, Vengosh and Neville 2018; Harris et al. 2016). Such an approach is necessary to analyze the specific co-produced ecologies that have developed in the whole Oder basin, their function in the larger capitalist world-ecology, the role of the state in this environment-making and the power-capital-nature relations that enabled the catastrophic events of 2022. The research here is done by translating the complex world-ecology conversation into a political science-oriented analytical framework that focuses on the interplay of state and water. Incorporated into this framework is a necessary working category of 'Cheap Water.' It was first coined by Deckard (2019) as something within the Seven Cheap Things (Patel and Moore 2017) that both forms within their intersection and transcends them due to water's specific role in the flow of capital and waste in the web of life. Cheap Water is when Linton's (2010) 'modern water' becomes reconfigured within and cheapened by the capitalist world-ecology, becoming the flow that interconnects the currents of the Capitalocene and the Wasteocene (Moore 2015; Armiero 2021). The article begins by laying out the theoretical and analytical framework and then follows the story of the Oder as it flowed into the Capitalocene and into the Wasteocene—a story that culminates in a catastrophic finale in one of capitalism's sacrifice zones.

World-Ecology as a Theoretical and Analytical Framework

Analyzing the tragic story of the appropriation of the Oder by the state-capital-science nexus requires a transdisciplinary perspective which is provided here by the potent, evolving and

increasingly accepted within different disciplines world-ecology approach. It ensures that the research does not reduce environmental problems as purely technical or scientific challenges, but as deeply embedded in power relations. This part of the article is not supposed to be a full account of the vast and complex world-ecology conversation, nor a detailed analysis of the thought of its creator, Jason W. Moore. It is rather a synthetic transformation of their elements into a readily utilizable analytical framework for a predominantly political science-centered research of how state power correlates to capitalist hydraulic control and social domination (Worster 1985).

The unending crisis of the Oder, the impotence of the state and the disappointingly low agency of civic engagement in the matter require an explanation that is both intellectually and politically important, and world-ecology promises just that (Moore 2015). It is ontologically founded on challenging the ‘Society + Nature’ dualism in favor of dialectical categories such as the *Oikeios*, which Moore (2015:45) defines as “a concept that moves from the interaction of independent units – Nature and Society – to the dialectics of humans in the web of life.” It emphasizes “the creative, historical, and dialectical relation between, and also always within, human and extra-human natures” (Moore 2015:46). This dialectical understanding of the web of life is essential for grasping how the Oder’s fate has, for the last four centuries, been intrinsically linked to human projects. At the same time, what is also significant about the world-ecology approach is pointing out the inadequacy of calling the global ecological crisis ‘Anthropogenic.’ According to Moore the crisis is in fact capitalogenic as capitalism develops through nature as an ecological regime—a system of organizing nature through “audacious strategies of global conquest, endless commodification, and relentless rationalization” (Moore 2016). Thus, it is the capitalist world-ecology that should be studied to understand the contemporary results of our environmental history, including the 2022 Oder disaster.

This dialectical approach lends itself well to any study of water, as it “provides a way of understanding the flow of history as well as the flow of water, and reveals how these flows are very closely related” (Linton 2010:25). With *Oikeios*, Moore shows the relational nature of historical agency where “every era of class society, and phase of capitalism, is a product and producer of the web of life” (Moore and Antonacci 2023:7). This rethinking of agency as “the capacity to induce historical change (to produce ruptures), or to reproduce extant historical arrangements (to reproduce equilibrium)” (Moore 2015:47) is of great methodological importance. Moore emphasizes that the agency of classes, capital or empire is unthinkable without the agency of extra-human natures and unfolds through configurations of power and reproduction in the web of life. One such configuration is the institutionalization of the flows of water by the state through science, technology and managerial procedures on the one hand, and the co-production of environments and cultures along rivers on the other (Conca 2006). These dialectical processes mutually strengthen both the concept of water as a resource and modern state through ‘cheapening’ water by systematic devaluation and appropriation by capital (Linton 2010; Patel and Moore 2017). Cheap Water becomes both appropriated and a tool central for the appropriation of nature, labor and energy via technological and engineering means of controlling its flow (Deckard 2019; O’Neill 2020).

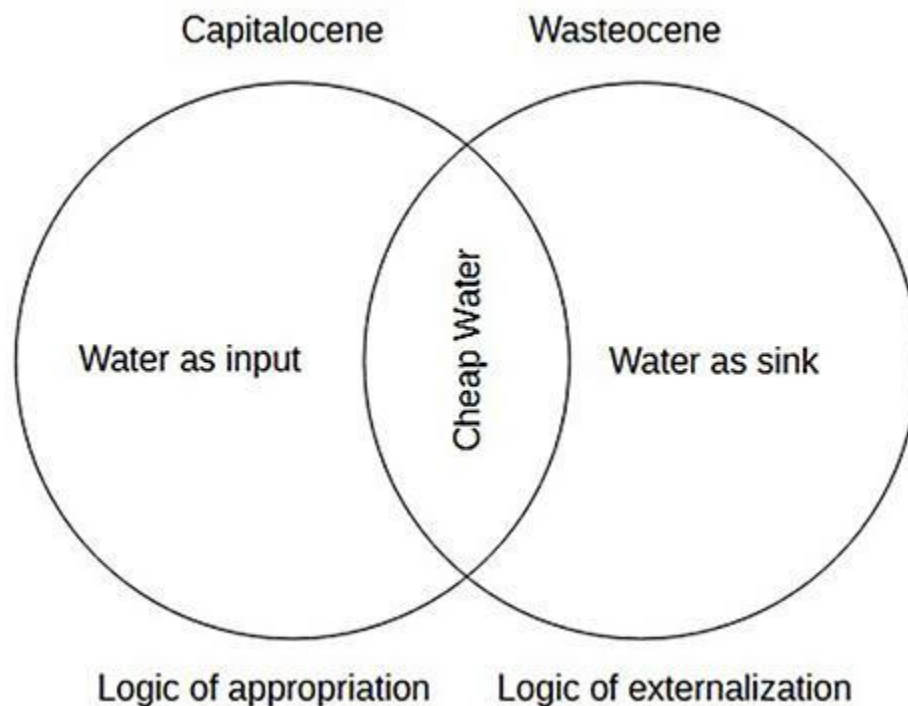
This provides a critical foundation for theorizing the role of the state in mediating the relationship between capitalist accumulation and flows of water. Because production requires not only resources but also fixed infrastructures of various kinds, capital becomes a force that necessarily territorializes and centralizes (Cox 2013). These happen through states—the coordinating devices that connect and integrate networks of power of the dominant economic entities into discrete territories (Agnew 2018). Christian Parenti (2016:171) uses the term “geopower” to describe this political and epistemic power of the state exercised through territory as the “technologies of power that make territory and the biosphere accessible, legible, knowable, and utilizable.” For him the state is understood as an inherently environmental entity, which implements geo-managerial procedures—such as identification, maximization, and restructuring of labor and knowledge—in order to identify nature’s productive potential, control it and make it utilizable to capital (Parenti 2016; Moore 2018). Importantly, geo-managerialism is continuously justified and legitimized through the discourses of ‘corporate and state managerialism’ founded on the applications of scientific-technological rationality through state bureaucracy (Harvey 1996). Within the politics of water this becomes ‘water resource management,’ ‘waste management’ etc. as ways of facilitating the ‘cheapening’ of water through policy and selective regulation.

The legal legitimization of this state-as-environmental-entity is provided by sovereignty—both as a concept and an institution. It underpins and gives permanence to state policies and international politics, with the latter especially important in transnational and/or border rivers like the Oder. State control of territory and national sovereignty are invoked regularly in the discourse on environmental politics and policies, especially when relevant to the state’s energy or food security (Walewicz 2023). What we have then is territorial modes of jurisdiction that prevail over processes that care not for our abstract demarcation lines (Dalby 2021; Latour 2016). These modes work within borders that are generally based on arbitrary, but economically and strategically useful considerations of the alliance of capital and state. They divide the web of life into parts geo-managed by states and thus sovereignty itself becomes an environmental practice through establishing the conditions for capital accumulation and protecting legal property regimes (Wallerstein 1991; Emel et al. 2011). Moreover, not only does the state provide economic entities with legal rights of ownership and conditions for capital accumulation, it also empowers them to stymie efforts to curtail their privilege to extract use value from nature and labor (Walewicz 2023). This also happens with both the rights to consume water as well as rights to use water bodies as sinks for waste, including the state protection of these rights, deciding limits or choosing when to impose or cancel fines for overcoming those. Unlike carbon emissions, which are becoming at least somewhat integrated into global or regional environmental policies, water policies are still mostly sovereign domains of states, even though the transnational nature of the crisis of modern water is as evident as in the case of the climate crisis.

Cheap Water thus has a peculiar place in this paradigm. It is produced through the systematic ‘cheapening’ of both human and extra-human work. It could be positioned at the intersection of Moore’s (2015) Four Cheaps, but has a different relation with each of them. Water has always been a source of food, but is also a necessary input for any other food production. Thus,

there is no Cheap Food without Cheap Water. There is no Cheap Labor without water-as-nutrient, but there is also no globalization of labor without the kinetic energy of water-as-pathway. Water has long provided energy-as-power (starting with the first water mills of ancient Greece), but there is also no power generation without water—at least as long as fossil fuels (or nuclear power) are involved. Water is the most commonly used raw material. It is used in, or is essential to, the production of almost every commodity in the world, taking a special place among Cheap Natures. It also has a specific relation to waste. Waste dumped into water has no fixed location and no boundaries, as it moves with the water. Almost everything thrown into a river ends up in a sea or an ocean, where it becomes a part of a slow-motion and silent unmaking of the global ecosystem. Lastly, it is the foundation of all life—it is the beating, or rather flowing, heart of the web of life and as long as anything in the capitalist world-ecology is being appropriated or exploited, Cheap Water is somehow involved.

Figure 1. Venn Diagram of the relationship between Cheap Water, the Capitalocene and the Wasteocene



Yet people in capitalist societies take water for granted, while capital continuously tries to appropriate it without paying for its reproduction. Within the capitalist world-ecology water is cheapened when the energy it provides for transport, the life it sustains for food, or the waste it carries away are treated as ‘free gifts.’ Moore’s labor theory of life explains how the state-capital-science nexus works together to ensure that the costs of the ecological reproduction of any body

of water are externalized. Water is cheapened in a double manner. It is cheapened as an input (energy for mills, transport for coal, etc.) and it is cheapened as a sink (disposal for industrial, agricultural and urban waste). Cheap Water acts as the blood flow that connects the Capitalocene and the Wasteocene. In the Capitalocene, the focus is on the appropriation of water as an input for accumulation. As the system reaches its ecological limits, it flows into the Wasteocene, where water's primary 'value' lies in its capacity to absorb the overflows of production. The history of the Oder is a good example of leading up to the moment where these two 'Cheaps' collide—the river can no longer function as a sink without destroying its ability to function as a living system being put to work.

Appropriating the Oder in the Capitalocene: Prussian Imperial Ecological Regime

Geologically the Oder is 10 million years old. It had always been a meandering river dotted with numerous islands providing spaces with economic, transit and defensive advantages. The oldest remains of human presence are dated to the Middle Paleolithic, when the use of fire and improved tool-making techniques opened new possibilities for organizing nature (Wojewoda 2015). The first settlements started appearing around 5000 B.C., but the river itself did not become utilized noticeably until 700-600 B.C. (Wolski 2021). Until the Middle Ages the river was not significant economically, but served as an easy access route to the north for the Celts and to the south for the Germanic tribes (Linek 2015). Later the riverside became an inadvertent ally to various Slavic tribes, providing them with easy access to food, drinking water, transportation and protection. When the tribes began uniting under princes and kings, their rivalry kicked off the process of large-scale organization of nature around the river, including urbanization, deforestation and turning swaths of land into farmland. Ships and rafts carrying salt, herring, grain, clay, sand and wood started crowding the waters of a few navigable sections of the river, bonding it forever with the development of civilization in this part of the world (Moździoch 1993; Marszałek 2010). The river also entered into the realm of property and the cycle of currency as early as the thirteenth century with those kings and princes, aristocrats and clergymen haggling over tariffs on goods transported by river. At the same time, it was a period of relative balance between human and non-human natures, with laws established to, for example, hunt and breed beavers, as well as protect and care for beaver dams (Moździoch 1993). The process of transforming the form and course of the Oder continued until the seventeenth century, but was noticeably slowed by political instability and shifting economic priorities. Yet the scope, speed and technological complexity of the interventions into nature increased steadily, as they did all over the emerging capitalist world-ecology (Moore 2017). Another bout of large-scale, systematic river regulation happened in the eighteenth century, emerging as another early Central European example of state-enabled and state-protected mediation between capital and Cheap Nature (Parenti 2016).

The seventeenth century brought a noticeable increase in the number and length of dikes built, but the big planned and organized efforts to transform the river further began in the early 1700s (Ciszewski 2006; Kaak 2019). At that time there were already fifteen riverside towns with a population larger than 1000 each, so the whole river basin was becoming more significant

economically and politically. 1769 is when the first map of the Oder was created, right after the river had become a spoil of war between the Habsburgs and Prussia (Hamplová, Urbaniak and Żurowska 2006). This first formal instance of identification of its productive potential began one of many bursts of appropriation of the Cheap Natures of the whole river basin. It was an instance of *geo-managerialism* during the early stages of development of capitalism in Prussia—even though its path differed from other Western European states (Mooers 1991). Being less driven by the bourgeoisie and more by a transforming nobility, it still depended on increasing accumulation not only by the appropriation of Cheap Natures, but also through perfecting new ways of organizing nature through scientific and technological managerial procedures (Moore 2018). Prussian capitalism was also founded on colonization, with the population being moved from the core of the country into the eastern fringes like the freshly dried marshlands of the Oder basin (Czeczot and Pospiszyl 2021). The river also got entangled into the water-energy nexus by the growing number of windmills built and an ever-increasing number of boats and barges (Weinthal, Vengosh, and Neville 2018).

The process of regulating the river in the early eighteenth century followed the European trend of being enamored with state-run “water management” (Parenti 2016). Prussia was amongst the leaders in new organizational practices and “the first state on the continent waging a systematic and centralized war with nature, founded on sciences, statistics, geology, geography typical of the Enlightenment” (Czeczot and Pospiszyl 2021). It had also entered a vicious cycle—forests were cut down and marshes dried by the building of dikes in order to get more farmland, yet those same actions caused a huge loss of biodiversity and led to the collapse of fishing and fish markets. Every change was subordinated to productivity and intended to provide the state with an immediate fiscal advantage. Not much thought was given to long-term consequences and ecosystem degradation was treated as acceptable collateral damage (Kaak 2019). It was not, however, just a “state project.” It was rather a massive transfer of Cheap Nature to the Prussian landowning elite in order to facilitate grain exports.

Cheap Work was provided by desperate fishermen. Some even attempted sabotaging the construction of further dikes and were punished for the infringement by working on the same construction sites while chained to carts (Patel and Moore 2017; Kaak 2019). Military policing of diking to prevent sabotage and ensure that all landowners fulfil their dike maintenance and marshland drying duties—for agriculture as well as to deprive the subordinated classes of places to hide from the oppression—was one of many aspects of geopolitics’ materialist possibilities (Parenti 2016; Czeczot and Pospiszyl 2021). While the large-scale diking was seen as a sign of progress and improved the lives of new settlers in the many dried marshes, it was also the Oder’s entry into the Capitalocene as the appropriation of nature for the purpose of accumulation for the few wealthy landowners and the owners of ship companies utilizing the straightened river. The power that a meandering river had over people got replaced by the power of the centralized state (Czeczot and Pospiszyl 2021). The state served specific class interests. The transformation of the river was not merely a feat of state engineering, but a class project designed to consolidate the

power of the Junker class. The state provided the landowning nobility with more arable land and turned the river's complexity into a simplified pathway for their export-focused economy.

The plight of the Oder under Prussian and later German rule did not change much throughout the whole nineteenth century, although it did gain an imperialist dimension after the Congress of Vienna in 1815. The Congress, apart from fueling later surges of imperialism, established rules that forced states to ensure free shipping and modernization of all rivers (Jarrett 2013). The geo-managerial procedures of allowing access to Cheap Nature/Work/Energy were now no longer in the hands of states themselves, but became a legal and institutional part of the emerging world order (Moore 2018). The most important effects of technological transformation of the river during that time were shortening its course by 177 kilometers and riddling it with thousands of groynes. Like other big hydrotechnic endeavors it became another illustration of “the role of the state in developing and reproducing the metabolic arrangements that are capitalism” (Parenti 2016:177). What changed in relation to the eighteenth century is that the historical agency of the specific class project that bundled the river with the Junker class got entangled with that of coal—the Cheap Energy from the Silesian mines—by carrying it towards the Baltic so that it could contribute to changing the world (Moore 2015; Malm 2016). The Oder's water-energy nexus now got expanded by this new dimension (Weinthal, Vengosh and Neville 2018). New offices and institutions were established to ensure the navigability of the river and ‘manage’ its flow. At the same time, the state apparatus engaged in an intense struggle against a different emanation of the river's agency—the floods, disastrous to settlements and the economy—by way of large-scale projects like artificial retention reservoirs, canals and dredging the riverbed. This fight was legitimized by promises of more farmland, less flooding or improved health conditions—always at the expense of local population, systematically depriving them of possibilities for emancipation (Czeczot and Pospiszyl 2021).

After World War I the river lost some of its importance, especially as a route of coal delivery to Berlin, after the political rule over its basin was divided between three different states. The final shift happened after the completion of the Mittellandskanal, enabling the transport of more coal from the Ruhr area than from Silesia. This, as well as Szczecin lagging behind Hamburg more and more, was part of a larger trend of uneven economic development between Western and Eastern parts of interwar Germany in a struggle of different vectors of geopower (Ministerstwo Ziem Odzyskanych 1946; Parenti 2016). This was a pivotal moment for the history of the Oder's regulation in the twentieth century, as only by regulating it even more and connecting with the Vistula and the Danube through man-made canals could the imbalance be reduced. Importantly, the idea of connecting the Oder to those other river basins remained a political goal for the later state socialist government of Poland. The last German project of transforming the river was a new 7-kilometer-long canal that was supposed to, but never would, become a part of the larger Oder-Danube canal. At the same time, even though the Oder basin was not under Polish rule at the time, the newly independent state did demonstrate a kind of politically and technologically driven “obsession with water”—affecting all the rivers actually governed by the state between 1918 and

1939—which left a lasting mental impression on Polish attitude towards hydroengineering that would soon affect the Oder as well (Mencwel 2023:72).

Flowing into the Wasteocene: Polish Socialist-Industrial Ecological Regime

As the Capitalocene matured all over the world, the appropriation of the Oder deepened, the river's role evolved further with political and technological transformations, culminating in becoming mostly a receptacle for industrial and urban waste on a trajectory to become one of the hot spots of the Wasteocene. After the Oder once again was majorly under Polish rule, the new post-war government did not waste any time to exploit it as much as possible. As early as 1946 a gathering of scientists and experts discussing the challenges of new territorial boundaries of Poland with a focus on the problems of the sea and the Oder pointed out its usefulness in economic development. The river, in concert with the Vistula, was about to become a “trackway through which the greatest economic currents can be fulfilled [...] by overcoming the relatively smallest terrain difficulties, by the lowest capital expenditure, and by the largest degree of flotation.” This Cheap Nature was anointed as the carrier of Cheap Energy from “one of Europe's biggest reservoirs of mechanical energy accumulated in coal,” used to “multiply the value of human labor” (Ministerstwo Ziemi Odzyskanych 1946:14). Right after reclaiming new land and the Oder back after centuries, the Polish nexus of science, state and technology got into further regulating the river to increase its transport capacity as much as possible and as quickly as possible through a new incarnation of *geopower* (Moore 2018). It began with the first expert-written three-year plan of the new centrally planned economy, aimed at tripling the river's capacity to carry boats and barges. It was intended to facilitate modernizing the country and improving the welfare of its citizens, but got quickly hijacked by party-state bureaucracy for their own political gain (*nomenklatura*).

This scientific management in USSR-dependent countries sometimes tended towards a class-oriented labor organization copied from the West in order to not fall behind in the race to subordinate and maximally exploit all kinds of human and extra-human labor (Foster 1999). In Poland the party-state bureaucracy had its legitimacy rested on rapid heavy industrialization, which necessitated treating the river as a cog in the machine. The desire to maximize productivity using whatever Cheaps available was not at all different to what was happening in the capitalist Western states. What was different was that this was not a project for capital accumulation of a bourgeoisie class, but a legitimization project for the bureaucrats whose careers depended on bringing results. Moreover, the heavy modernization of the Oder basin was also dictated by new geopolitical struggles (Niemczynowicz 1992). In 1946 it was supposed to break the pseudo-colonial relations of only exporting raw materials and food to Western Europe by opening the possibilities of sending more labor-intensive products to other parts of the world. Later, after being subdued by the USSR, the whole endeavor became a part of the Cold War rivalry and an important tool to be used against the pressures from the capitalist West. The logic of commodity production got very close to that in the capitalist states, especially after Poland had become heavily indebted to foreign creditors (Rae 2008). Because the capitalist order after World War II was being imposed by the West onto the whole world, production organized by state bureaucracy still had to compete with its corporate

equivalents in the West under the logic of competitive accumulation (Harman 2014). Being governed by officials competing to see who could best fulfil the state's expectations, Poland had no other choice than to become a part of the joint world-ordering by Moscow and Washington, each desiring to preserve the power relations around the globe (Wallerstein 2004).

A fascinating, yet depressing, account of how the Oder was treated by Polish state socialism is given in a 1977 compilation of reports on the river written by journalists for a literary competition (Hornig et al. 1977). The human attitude towards water was really no different than what hydrofeminism recognizes within capitalism (Neimanis 2017). We learn how the scientists and engineers, enabled by the government and the press, knew everything there was to know about the “river-laborer” (*rzeka-robotnica* in Polish, which could even translate to “river-female-laborer”). We are shown how the sailors were accompanied by “single-cruise female friends”—an euphemism for female sexual workers pushed towards staying on a barge for months by the poverty pervasive in riverside cities—providing Cheap Care (Patel and Moore 2017) and facilitating the maximum exploitation of labor from the sailors who would otherwise leave their backbreaking work much sooner. We are told about the nexus of political power and Cheap Energy, which was either carried by the current in barges full of coal or siphoned straight from the flow of the river, risking Wrocław's University and the Old Town being flooded and collapsing. Finally, we witness how the river flowed straight into the Wasteocene, being injected with waste from “every town, every factory”: rusted splinters and petrol stains from the barges, unsold rotten fish and much more.

After 1977 things did not improve at all. Functioning within the Eastern Block meant that the country did not have to submit to the effects of the oil crisis and followed other East European states in completely neglecting the energy efficiency of the economy. And because the Cheap Energy came solely from fossil fuels—mainly coal—the amount of dust and sulfur emissions greatly degraded soil and water, including the Oder. Environmental law existed in the Polish People's Republic (PRL) only on paper, while actual environmental protection never functioned. The great equalizing project of Polish state socialism improved the lives of much of the proletariat, but at the unfortunate cost of the proletariat. The river thus became a vehicle for the emerging Wasteocene, with lead and zinc waste from ore processing in Silesia coalesced into a “chemical bomb” for the whole river basin (Niemczynowicz 1992). Waste began to take over the waters of the Oder and its tributaries. Heavy industries and municipal waterworks have been releasing untreated waste straight into the rivers. Power plants emitted salinated and heated cooling water—a harbinger of what was to come in 2022, because the science-capital-power nexus managing the rivers had never learned its lessons. These processes had only sped up in PRL, culminating in the Oder itself having no first-class quality water—which means water suitable for drinking—at the turn of the regime in the early 1990s. More than 64 percent was not even suitable for watering crops or fish farming (Niemczynowicz 1992). What happened to the Oder under communist governance is exactly what Foster (1999) describes as the “ecocide” happening all over the USSR and its satellite countries.

Balancing on the Edge of Catastrophe: Neoliberal Ecological Regime

The transition to a capitalist democracy in 1989 was done through an imperialist extension into a non-capitalist market by the West in a kind of shock therapy, cementing Poland's place in the semi-periphery of the world-economy (Klein 2007; Rae 2008; Klementewicz 2015). By destroying elements of the socialist economy and gaining monopoly over whole industrial and financial sectors it was founded on primitive accumulation enabled by the comprador bourgeoisie (Rae 2008; Keller-Krawczyk 2011). Despite these new relations, nothing changed in the state's relationship with water. Full reincorporation into the capitalist world-ecology allowed big business to join the state's war on water, jumping on the opportunity to socialize the costs of private profit (Mencwel 2023). Behind the obscuring euphemism of public-private partnership, new institutions and laws were put in place in order to enable as much appropriation of Cheap Water as could be hidden from the public—all enabled by the rise of crony capitalism (Klementewicz 2015). The enamored with free-market ideology did the rest, persuading everybody that technocratic management, including 'water management,' run by the invisible hand will solve every issue (Bohle and Greskovits 2012). Not many actors understood that "management is about control, not liberation" and state institutions readily underwent the managerial revolution (Moore 2021; Klementewicz 2015). Moreover, the integration with the European Union in 2004 cemented Poland's semi-peripheral position, and the socio-economic problems of the Polish side of the Oder basin (lower income, lower access to health care or other social services, less environmental protection) became more noticeable (Ciok 2000; Rae 2008; Jasiocki 2013).

Thus, the river once again became entangled in a new kind of class project. Long gone were the Junkers and the party-state bureaucrats. This was the time for the neoliberal managers securing Cheap Water for the interests of multinational shipping and industrial mining conglomerates. The water of the Oder became a scarce resource and an economic good "to be supplied and consumed or used in the most rational, economical fashion possible" (Linton 2010:215). Big projects related to mining that required drying big swaths of marshlands caused a drop in underground water and loss of many species. With climate change affecting the amount of water in the Oder itself, the dumping of salinated water from the mines began affecting the river more and more. At the turn of the millennium at least five other industries were responsible for dumping waste into the river as well: food, paper, steel, coking and textile industries (ICPO 1999). The scale of degradation and destruction was steadily growing (Ciszewski 2006). A lot of effort was put into devising a managerial system of water permits issued by state institutions to private businesses. These were intended to simplify and encourage various private endeavors: hydroengineering projects (dams, dikes, canals etc.), mining sand or stone from the riverbeds, deforesting the shores or dumping waste into the water or surrounding grounds. Appropriating and destroying nature became legal, as long as one could stay within the parameters of permitted destruction or stay under the radar of public opinion. It was mostly done through opaque reporting or inadequate oversight (Mencwel 2023). Thus, for more than two decades it has not even been the absence, but the exemption from regulations for the energy industry that resulted in

uncontrolled contamination and ecosystem degradation, following a pattern visible in other parts of the world as well (Weinthal, Vengoth and Neville 2018; Kojzar 2021).

The first years of the transformation did not see any major regulation projects in the Oder basin, but the 1997 great flood was promptly used to legitimize an even further control and regulation of rivers (Kundzewicz et al. 2021). The Polish state—often enabled by the German state which has acted as an accomplice, at least until the 2022 catastrophe after which Berlin’s rhetoric changed drastically (Zimmermann 2022)—never really abandoned the idea originating in eighteenth-century Prussia that the Oder could become a cargo watercourse and that people can engineer their way out of flood risk by pouring more and more concrete into the river. The most recent organized efforts to implement this began in 2015 as a joint Polish and German initiative, even gaining the approval and financing pledges from the World Bank, the EU and the Council of Europe Development Bank. These efforts also ignored most of the expert voices and prioritized short-term economic profit of singular businesses (mostly in the hydraulic engineering industry) which would become obsolete anyway because of the long-term damage done to the ecosystems in the river basin (IGB 2020). Importantly, the 2015 agreement has been made by the ‘liberal democratic’ government and the succeeding ‘right-wing populist’ government decided to continue with its implementation despite Germany’s slow retreat, signifying that the superficial political rhetoric has no impact on the actual treatment of bodies of water by the capital, state and science/technology nexus. The new government simply continued by adding more arguments to the discussion. One of these was the geopolitically necessitated transport of imported coal, but this time from the seaports into the hinterland, reversing the nineteenth century vector of tying the flow of water with the flow of Cheap Energy (Kość 2022).

Another dimension of Cheap Water in the Oder basin is the role of science. Even a cursory glance over the departments in Polish universities reveals that science is mainly involved in enabling the geo-managerial workings of the state. Water is studied mostly in technical universities and some geography or biology departments in other universities, but mostly with a managerial and techno-regulatory focus. Issues of genuine, rather than merely rhetorical, sustainability or socio-ecological justice appear rarely. They are mostly published by authors not really involved with academia that much or scholars representing anthropology, cultural studies or sociology—disciplines not directly associated with water-related issues and with relatively low political impact (e.g. the often cited in this article Mencwel 2023; Tusznió & Strzelecka 2022). Moreover, big businesses (whether state-owned or private) have been missing from most of the scientific discourse on Polish water. For example, in the report co-written by 35 of the most prominent scientists who study water in various forms the ‘energy’ side of the Polish water-energy nexus is completely omitted, including no mention of power plants dumping hot water or coal mines dumping salinated water into rivers. The problem of waste is brought up only in the context of urban and agricultural waste (see Kundzewicz et al. 2021). Water is also missing from analyses of Polish capitalism and Mencwel (2023) was actually the first to write extensively about their relationship in detail.

This long-standing pattern of prioritizing economic activity, technology-based solutions and the accompanying regulatory leniency directly contributed to the profound ecosystemic alterations that set the stage for the 2022 disaster. The state's consistent geo-managerial approach, focused on control and appropriation rather than actual sustainability and justice, laid the critical groundwork for the catastrophe, which in turn laid bare the fragility of not only the ecosystem, but the self-control of the state-capital-science nexus. Driven by a transnational managerial class and local comprador elites, the transformation of the river prioritized industry over the reproductive health of the river.

Cheap Water in Capitalism's Sacrifice Zone

As much as the government has tried to be somewhat proactive with river transport investment in Polish rivers, it has been completely reactive when it comes to the threat of too much (floods) or too little water (drought), as well as the threat of excessive waste. It has only been taking decisive but short-lived action after major floods, droughts or toxic poisonings of rivers (Kundzewicz et al. 2021). Despite the government's own pledges from 2016, the biological conditions in the river have been deteriorating steadily (WWF Polska 2022). Under such political-ecological conditions, the enclosure on the biosphere under "capitalism's sacrifice zone strategy" had to, sooner or later, end badly for the Oder (Moore 2023). The catastrophe happened at the intersection of structure in the form of the state-capital-science nexus and contingency in the form of a specific set of decisions or lack thereof, culminating in a sacrifice zone where waste forced life to concede.

The 2022 ecological disaster that saw a 60 percent reduction in fish biomass and an 88 percent decrease in native mussels and snails stands as one of the most severe environmental catastrophes in recent European river history. The first signals of distress appeared long before any state reaction. Local anglers in southwest Poland reported unusual fish die-offs as early as March 2022, but these were largely ignored by regulatory bodies, first revealing the class divide between the state managerial class securing the interests of industry and members of local communities. Then in July 2022 a mass mortality event was documented in the Gliwice Canal, which is a key industrial waterway connected to the Upper Silesian coal mines. Despite the removal of enormous quantities of dead fish, the event was treated as a localized pollution incident. When members of the Polish Angling Association mobilized to remove tons of dead fish from the Oder, state laboratory facilities did respond, but still without proper testing. Only after the contamination wave moved downstream and entered the city of Wrocław, a major urban center where the river is integral to city life, the Polish Government Center for Security issued public alerts.

The lack of early state intervention placed an immense burden on local volunteers, including the anglers and environmental activists. They were the first to face the physical toll of removing hundreds of thousands of decomposing fish without logistical support from the state, but also the psychological stress of working in an environment which has been contaminated by unknown biological hazards. There were rumors of mercury and other toxic substances, and they spread rapidly due to the delayed testing by state agencies. For many of those volunteers, the river was not just a place of work or hobby, but a central part of their life and community identity.

Feelings of grief were widespread. They were accompanied by the feeling of economic insecurity, as fishing businesses were pushed towards insolvency and tourists were scared away by the presence of massive amounts of decomposing biological matter and bans on river use. The whole Oder basin became a “haunted landscape” (Wilson 2025).

While the immediate biological agent of this devastation was a massive bloom of a toxin-producing alga that led to suffocation and circulatory failure in animals, it was enabled only by profound human alterations to the river’s ecology (IGB 2024). This was a relational agency at work, working through the configuration of class (the neoliberal managers and comprador elites), industrial and agricultural practices, governance failures, heat and drought. The scale of this toxic bloom was only possible through the combination of, among others, high salinity (caused by legal and illegal industrial/mining discharge), high concentrations of phosphorus and nitrogen (caused by legal and illegal agricultural and urban waste), not enough ‘natural’ riparian zones and too many engineering measures implemented to deepen the river bed for navigation (Free et al. 2023).

The disaster laid bare the scale of water injustice present in the core capitalist states that may not be as great as in the so-called ‘developing’ countries, yet exists as an inherent effect of Cheap Water in the capitalist world-ecology. As in other parts of the world, the catastrophic event was felt mostly by the inhabitants of the riverbanks whose livelihood depends on clean water and abundance of aquatic life, not by the big business (Harris et al. 2016). There were documented cases of individuals, including anglers and residents, suffering skin irritations and chemical burns after contact with the river, yet the authorities delayed official warnings for weeks, endangering local communities unaware that the water itself posed a danger. The existing legal framework effectively internalized the environmental degradation as an acceptable cost of doing business, whether coal mining, hydro-engineering or food production, by externalizing waste disposal onto the river ecosystem and downstream communities. The responsibility of the government and the corporate heads even got a judicial confirmation after the investigation by Fundacja Centralna (Ptak-Iglewska 2025). Cheap Energy, Cheap Nature and Cheap Food got entangled within the pressure for Cheap Water and this knot got tightly tied around life in the Oder basin. It still holds strong with new cases of high salinity or mass fish deaths observed each year after 2022 (Kojzar 2025).

The geo-managerial practices of the Polish government that led to the 2022 disaster were founded on the pressure to facilitate accumulation by appropriation as well as on national security concerns, as all around the world the scarcity of both energy and water had already entered the decision-making calculus (Weinthal, Vengosh and Neville 2018). In a kind of paradoxical situation, however, the hydromorphological modifications to the Oder and providing conditions for continuous appropriation met with the global capitalogenic climate crisis on a local level, undermining the most basic existential security of the web of life. The development projects going on in post-1989 Poland intersected with the impacts of the climate crisis to render the Oder basin more and more susceptible to external shocks, whether ‘natural’ or ‘civilizational.’ The state lacked any foresight before, and it also lacked any insight during and after the 2022 disaster. World Wildlife Fund (WWF) experts agree that it was this state neglect that ultimately allowed the crisis

to happen (WWF Polska 2022). The government's response was widely criticized as slow, politicized and lacking transparency. There was initial downplaying of the disaster or attributing it to 'natural' (as in outside of human control) causes, as well as national posturing directed towards German media and scientific institutions. Cross-border cooperation was hindered as national political agendas founded on concerns for sovereignty overrode ecological imperatives in the transboundary basin of the Oder. The state's lack of foresight and its slow, politicized response exemplify not only the state's nature as an environmental entity subservient to capital, but also the human ignorance and indifference that Harvey (2000) identified as contributing factors to environmental degradation. On top of that, the internally contradictory nature of science allowed the government to plan even more destructive engineering investments and legal relaxation by appealing to the authority of one group of 'experts,' while the opposite group advocated for swift restoration of the natural flow and ecosystem of the river and legal tightening (WWF Polska 2022; Free et al. 2023).

The struggle between the way of technological fixes that would ensure capitalism's business-as-usual, the way of state-of-the-art expert knowledge of the so-called 'Nature Based Solutions,' and the way of the fight for justice for all life continues (Moore 2023; Mencwel 2023). Its latest embodiment is the proposition to give legal personhood to the Oder, although time will tell whether this idea brings with it any noticeable paradigm shift, gets absorbed and appropriated by capitalism, or falls into oblivion. There is a lot of fuel for this movement coming from the actions of the state itself. Apart from allowing even more saline discharge to enter the river *after* the disaster, there were also some specific controversial issues. One example was the leaked report by the Ministry of Industry to the European Commission from 2024, revealing the astounding number of fines for saline discharge that were waived and legitimized through legislative loopholes regarding public financing (Osoba Odra 2025).

Conclusion

The 2022 disaster was not an isolated incident but a localized manifestation of a global pattern within the capitalist world-ecology. It reveals how state responses to such catastrophes are optimized for market tolerability, rather than socio-ecological stability and justice, while risks, instead of being eliminated, are only smoothed and re-framed for industry's confidence and national security concerns. It also shows how water policies, by remaining largely sovereign domains of states, hinder effective solutions to water crises which are inherently transnational. But what is even more interesting than analyzing the singular event and its immediate consequences is the *longue durée* perspective on the processes that facilitated the disaster on a political level.

The history of the appropriation of the whole Oder basin shows water as a relational agent that becomes both 'modern water' through resource-making, as well as Cheap Water through continuous devaluation and appropriation in either early capitalist, state socialist or late capitalist conditions. The treatment of water, among other elements of the Oikeios, as a "free gift" by the state-capital-science nexus that began in the sixteenth-century Madeira exists in the contemporary

Oder basin as much as any other place in the world (Patel and Moore 2017). It began with the state-enabled regulation in eighteenth-century Prussia, continued with the exploitation under state socialism and never slowed down in the Polish post-1989 predatory capitalism that maintained the constant cheapening of water for energy or food production and ‘waste disposal.’ The currents of both the Capitalocene and the Wasteocene intertwine between the riverbanks of the Oder and its tributaries leading to the creation of these ‘sacrifice zones’ where aquatic life dies on the altar of Cheap Water.

This relation between water and capital has always been mediated by strong government involvement, public financing, agencies, institutions, state-led science and state-led infrastructural projects. It proves Parenti’s (2016:166) point that through this multifaceted mediation the state, as an “inherently environmental entity,” becomes the actual “relationship” that capital uses to work through nature. The history of the Oder lets us expand on Parenti’s original thesis that it is only the ‘capitalist state’ that fits this description, as the state socialist era of Polish organization of nature followed all the same paths, albeit with end goals of a more political than economic nature. It was thus the imposition of the rules of the capitalist world-ecology that caused the non-capitalist state to behave exactly as its capitalist counterparts, cheapening and appropriating water while externalizing costs into it.

The 2022 disaster is not something of the past, but a persistent, localized emanation of the crisis of ‘modern water.’ It continues and will continue until the current geo-managerial approach to water, prioritizing control and profit, gets replaced with a more socio-ecologically just relationship. This relationship would have to both acknowledge the historical agency of extra-human nature as a relation within the web of life (rather than an inherent property of the water itself, as new materialists would have it) as well as re-politicize the crisis itself, albeit via a different politics of water. Scholars like Moore (2022:30) advocate for a global shift “from a privatized logic of planetary dictatorship to one that favors a biospheric socialism of the associated reproducers.” Water, with all its role in the web of life, would certainly benefit from such a transition. But the issue of the Oder, while being part of a global pattern, is also a local issue within the system of sovereign nation states and thus there exist localized solutions that are already in play. There is already a discursive shift that makes water crises as much of an issue as carbon-dioxide emissions or a redirection of the discourse on water away from quantity towards quality. Then there is the movement for a legal personhood for the Oder, which may be hopeful, but still carries the same problems as any rights-of-nature movements that function in the capitalist world-ecology and its constraints. It is, however, the first big movement in Poland aiming to shift water governance from a resource-based to justice-based approach, engaging activists, artists and scholars alike (Harris et. al. 2016).

The 2022 disaster did somewhat open the eyes of the public to the plight of Polish rivers and the big business’ role in it, as well as put the democratization of access to the river into the mainstream discourse. However, the government and its overall course seem unmoved. On one hand, the bill to give legal personhood to the Oder got introduced by a small group of members of the parliament. On the other, there are new laws being passed that will enable even more

appropriation of the Cheap Water. Riverbed regulation and riverbank deforestation are being made easier, coal power plants are still being given more permits to utilize the Oder's water and the fines for dumping saline are still negligible to the industry. The expert voices chosen to shape institutional decisions are still mostly those transfixed on steel and concrete-focused engineering projects rather than those advocating for 'nature based solutions' to water issues. Thus, a revolution in the politics of water, at least in the case of the Polish part of the Oder basin, will not happen solely in a bottom-up manner, because it has to contend with another bottom-up pressure—that of capital. It will have to be accompanied by a top-down reconfiguration of the state and its knowledge-making capabilities in a more democratic, life-affirming and justice-oriented way.

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Disclosure Statement: Any conflicts of interest are reported in the acknowledgments section of the article's text. Otherwise, authors have indicated that they have no conflict of interests upon submission of the article to the journal.

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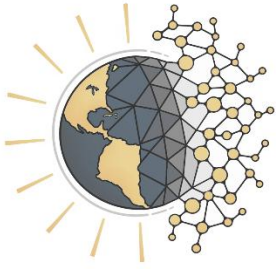
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Lead Battery Recycling and the Ecologically Unequal Exchange of a Crescive Contaminant Across the U.S.-Mexico Border

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Abstract

In 2008, the United States announced stricter occupational and ambient air emissions standards for lead, the first such change in three decades, but the regulations remained unchanged in Mexico. This has driven hundreds of millions of lead batteries across the border for recycling as U.S.-based companies side-step higher domestic compliance costs. In doing so they perpetuate the unequal valuation of labor and human health commonplace across the U.S.-Mexico border. Leveraging regulatory asymmetries is one dimension of ecologically unequal exchange or the patterned exploitation of nature whereby corporations based in more dominant nations gain access to raw materials and shift the risks of pollution intensive economic production. In this regard, the U.S.-Mexico border produces racialized environmental violence as batteries flow freely but people do not. The veracity of this violence is detectable in the blood of those laboring under a three-fold higher occupational standard and the children living in the shadow of smelter facilities operating with a ten-fold greater threshold for the imposition of ambient, lead-laced, air releases. Battery manufacturing comprises a circular economy in which nearly all lead comes from secondary recovery rather than mining, but there is a detour spanning thousands of miles and traversing through working class communities in Mexico. It is a central contradiction within what is widely touted as the most ecologically modern industry in the U.S.

Keywords: Ecological Unequal Exchange, Trade and Development, Hazardous Wastes, Recycling, Environmental Degradation, Environmental Sociology, Neoliberalism, U.S.-Mexico Border, Ecological Modernization



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In 2012, executives from Johnson Controls assembled in Florence, South Carolina to celebrate the opening of their battery recycling facility. The event drew over 300 people and included local leaders, community members, and state politicians from afar (Johnson Controls 2012). It is a well-worn ritual: individuals dressed in business attire wearing hard hats, awkwardly holding shovels, skirting about some dirt, a large ribbon, ceremoniously cut. Smiles, handshakes, and promises of economic prosperity abound. Indeed, the plant was designed to recycle up to 14 million automotive batteries each year (Johnson Controls 2012). Spent batteries are disassembled and the lead is recovered, smelted to remove impurities, and the refined ingots are remelted to produce plates that are fashioned into new batteries. And company officials stressed that the emissions controls were state-of-the-art (Johnson Controls 2012).

Lead battery recycling is the most ecologically modern industry in the United States. A closed-loop system predominates as state and federal law prohibits unregulated end of life disposal. For the consumer, a spent battery is delivered to a retailer when making a new purchase and then handed back to the manufacturers. Few batteries are disposed of in a landfill, and the transformation of the industry is consistent with the tenets of ecological modernization theory stipulating that the institutions of the state in tandem with market incentives and technological innovation can contribute to less polluting and resource intensive economic development (Mol 2003). A key aspect is the continual reintegration of materials back into production processes.

Soon after the festivities concluded in Florence, however, violations of state and federal law commenced. These violations pertained to workplace conditions and ambient air emissions (Fretwell 2022). Fines were imposed and remediation steps sketched out. And then in 2021 Johnson Controls officials announced they were closing the plant, less than a decade after it opened. They denied that the closure was due to environmental and regulatory considerations, insisting it was necessary to streamline overall operations, and that it would “strengthen our position as a global leader in advanced battery technologies” (Fretwell 2022).

A fuller explanation lies 1,500 miles to the south. Johnson Controls acquired their battery recycling facility in Ciénega de Flores in 2004 and in Garcia in 2011, both on the outskirts of Monterrey, Mexico. And in-between the U.S. Environmental Protection Agency (EPA) announced a tightening of occupational and ambient air standards for lead, the first such update in 30 years. Prior to 2008, regulations were equivalent between the United States and Mexico. After this point the occupational exposure threshold was three times greater and the ambient air standard ten times higher south of the border. And for nearly two decades the export of used car and truck batteries from the United States to Mexico has continually increased.

The automotive battery division of Johnson Controls was sold to outside investors and renamed Clarios in 2019. In a Securities and Exchange Commission filing Clarios stated something rarely spoken of publicly, “As an example of the benefits of our vertically integrated model, in fiscal year 2020, our Mexico recycling facilities were able to operate at a cost basis 70% less than the cost of our average third-party tolling contract when evaluated on a per-ton basis” (Clarios 2023:10). Tolling refers to an agreement in which an independent facility agrees to smelt lead for another party for a fee or “toll.” Clarios’s operations in Mexico in 2020 engaged in such

processing at a cost 70 percent lower than outsourcing to a third-party in the U.S. Overall, Clarios saves around \$30 million annually employing its recycling operations across the border (Clarios 2023).

This cost-reduction is borne by Mexican children. The costs do not dissipate into thin air. The costs migrate south in an undocumented manner. Coating indoor windowsills, toys lying about the yard, mixed in the soil, picked up by foot traffic and the vagaries of the wind, in smelter communities throughout Mexico there are a litany of examples over an extended period depicting a familiar narrative: children burdened by the decisions and non-decisions of adults in distant locales. Indeed, each year millions of spent batteries are transported by truck or rail southward, processed, and then shipped back. Rather than internalizing compliance costs within the production cycle U.S.-based companies leverage regulatory asymmetries and perpetuate the unequal valuation of labor and human health. And Clarios is a key actor—accounting for up to two-thirds of all used batteries exported to Mexico in recent years (Gottesfeld, Chavez Arce, and Macias Raya 2023).

On the outskirts of Monterrey and elsewhere, pollution reflects structural inequities within the world-system and is readily detectable in soil, air, water, and the bodies of laborers and the most vulnerable within society. Power is the capacity to impose upon others the unpaid costs of economic production, on the one hand, while declaring a commitment to corporate responsibility, on the other. In 2025, for the third year in a row, Clarios was recognized as one of the world's most ethical companies (Clarios 2025).

Leveraging regulatory asymmetries is one dimension of ecologically unequal exchange or the patterned exploitation of nature whereby corporations based in more dominant nations gain access to raw materials and shift the risks of pollution intensive economic production. As Immanuel Wallerstein observed (1974), there is an extensive division of labor across the world that is occupational and geographical. The social organization of work or range of tasks performed at different places, and how these tasks are performed and remunerated, enhances the capacity of some to exploit the labor of others (Hickel, Hanbury Lemos, and Barbour 2024; Wallerstein 1974). Ecologically unequal exchange illustrates that an extensive division of labor runs parallel to differential access to natural resources and the imposition of polluting activities.

Spent battery exports between the U.S. and Mexico also illustrates the barriers to ecological modernization amid the persistence of unequal exchange dynamics, and a slow, iterative violence (Nixon 2011). Lead is particularly hazardous for infants and children as it is associated with cognitive impairment and behavioral problems that last a lifetime, and among adults it contributes to high blood pressure, cardiovascular damage, and kidney disease (Muller, Sampson, and Winter 2018). Over the past three decades disability and premature death due to lead pollution in Mexico has more than doubled (Institute for Health Metrics and Evaluation [IHME] 2025).¹

Battery recycling between the U.S. and Mexico comprises the ecologically unequal exchange of a virulent contaminant as companies side-step higher domestic compliance costs. The greenest

¹ This includes lead exposure from all sources.

industry in the U.S. has a detour in its closed-loop production cycle traversing thousands of miles. It highlights the mobility of capital amid the more constrained movement of labor as batteries move south with ease while people moving north confront the coercive power of the state. Moreover, it underscores central blind spots in ecological modernization theory as efficiency gains in the core countries can coexist with rising global material throughput and the shifting of hazardous production to the semi-peripheral and peripheral countries. Examining lead battery exports from a World-Systems framework highlights how green technology and closed-loop production can mask the expropriation of cheap labor and environmental sink capacity. Given Clarios is responsible for a majority of exports, halting much of the environmental damage is dependent upon the policies of just one company.

The next section outlines the theoretical postulates of ecological modernization and the theory of ecologically unequal exchange. I then outline the data depicting the export of lead batteries and the racialized environmental violence made possible by the differential valuation of life across the U.S.-Mexico border. The discussion then turns to Mexico's neoliberal turn beginning in the late 1970s as this is the larger context in which batteries and a myriad of other hazardous materials are either produced within or transported to the country. The conclusion reiterates the central lessons of lead battery recycling across the U.S.-Mexico border which entails the mobility of capital to leverage regulatory asymmetries and the failure of ecological modernization theory to confront an extensive division of labor in which countries fulfill distinct roles in a larger system characterized by ecologically unequal exchange.

Ecological Modernization and Unequal Ecological Exchange in the World-System

Ecological modernization theory traces its roots to the 1980s and the idea of a fundamental shift occurring in many European countries towards a greater embrace of "ecological rationality" (Mol and Sonnenfeld 2000; Mol, Spaargaren, and Sonnenfeld 2014). This encompasses technological innovation, market incentives, evolving state regulations and initiatives, and new social movements spurring a restructuring of production to reduce natural resource consumption and attendant pollution. Researchers have documented changes within politics, economics, and culture in the most developed countries, and all ostensibly heralding a new era in which the profit-motive can be harnessed to environmental improvement. Ecological modernization theory is thus a counter to de-industrialization and de-growth schools of thought stressing that economic production must be scaled back to within the limits of global ecological systems, and it is distinct from neoliberal economics insisting that markets alone are the optimum mechanism for addressing widespread pollution and landscape change (Mol 2002). In turn, ecological modernization theorists suggest that human societies can pursue economic production, material consumption, and environmental improvement in tandem. As Gibbs notes, "Ecological modernization indicates the possibility of overcoming environmental crises without leaving the path of modernization" (2017:3).

A fundamental principle is reflexive modernization and, in turn, the transition from brute and unrefined capitalist relations of production to something more evolved. It hinges on societal self-correction which may be iterative and uneven across industries but, as Arthur Mol stresses (2003), it is nonetheless semi-permanent. Indeed, Mol argues political economy and neo-Marxist scholars fail to appreciate the significance of processual change over time and the prospect for more sustainable social organization (2003).

A central ecological modernization theme is the progressive de-coupling of economic development and material resource flows (Mol and Sonnenfeld 2000). It entails doing more with less. Decoupling is predicated upon circular production and consumption sequences at scale and the reintegration of materials and waste back into the system. Ecological modernization theorists stress that consumer products should be designed to keep them in circulation for as long as possible.

The lead-acid battery industry is a prominent example of a closed-loop production and consumption cycle. Around 99 percent of used batteries in the United States are recycled, a figure higher than any other consumer product. The Battery Council International argues this constitutes a “near-zero waste model of sustainability” (Battery Council International 2023). In turn, there is significantly less reliance upon the mining of lead to meet consumer demand. It illustrates the productive confluence of state regulations, market restructuring, and self-contained industrial production that ecological modernization proponents advocate.

Ecological modernization research often focuses on detailed case studies at the firm or industry level within a given national context (Ewing 2017; York and Rosa 2003). In this sense, scholarship runs the risk of the fallacy of composition in which inferences derived at a lower level of abstraction are inappropriately applied at a higher level. The fallacy of composition lies in the erroneous conclusion that what is true of the parts, must be true of the whole (Samuelson 1948). A single data point, or indeed a litany of data points, does not necessarily define a more complex structure which often illustrates emergent processes not evident by simply examining any given part(s) from which it is derived. What is crucial is the way the parts interact and how this shapes the overall properties of the system. In turn, ecological modernization theory derived from a purely case study approach is prone to the fallacy of composition because proponents do not recognize the social organization of work across national boundaries.

The “Netherlands fallacy” is a related critique (York and Rosa 2003). It is based on the observation that the Dutch population and their average standard of living are only made possible through reliance upon imported resources. To assume the Netherlands is sustainable because it is a country with a strong environmental state and comparatively lower domestic environmental problems is to miss the “bigger picture.”

The modern world-system is that bigger picture. Immanuel Wallerstein argued the Western industrialized countries and Japan constitute the core of a stratified system and illustrate the control of capital, value-added manufacturing, preferential trade relationships, and political and military prowess (1974). Peripheral countries primarily rely upon the export of raw materials and labor intensive, low wage assembly manufacturing. The semi-periphery includes those countries

exhibiting core-like and peripheral economic production processes (Wallerstein 1974). Countries fulfill distinct roles, and this contributes to an over-arching hierarchy. Wallerstein observes (1974:349):

We have defined a world-system as one in which there is an extensive division of labor. This division is not merely functional – that is, occupational – but geographical. That is to say, the range of economic tasks is not evenly distributed throughout the world-system. In part this is the consequence of ecological considerations, to be sure. But for the most part, it is a function of the *social organization of work*, one which magnifies and legitimizes the ability of some groups within the system to exploit the labor of others, that is, to receive a larger share of the surplus (emphasis added).

The social organization of work across the world-system underlies the patterned exploitation of nature. Enduring uneven development rests upon a material foundation which “magnifies and legitimizes” the capacity of some to exploit the resources and ecological carrying capacity of others. Power is the ability to control how labor is organized and remunerated across national boundaries and the asymmetric environmental flows constituting the matter and deleterious side-effects of production. All production begins with a material foundation (Bunker 1985), and this includes ecologically modern technology. All production begins with nature, but the crucial question is whose nature?

Ecologically unequal exchange is comprised of three dimensions (Givens, Huang, and Jorgenson 2019; Hornborg 2025; Jorgenson 2016a). First, natural resources move up the hierarchy of the world-system. The most developed countries are net importers of raw materials (Dorninger et al. 2021; Hickel et al. 2022; Rammelt and Ylla-Català 2025). Despite importing vast amounts of materials, the core sustains a trade surplus by selling manufactured goods abroad, and often to nations dependent upon resource-exports (Dorninger et al. 2021). The few core countries that are net-exporters of raw materials derive more economic value per unit than do non-core countries exporting the same resource (Dorninger et al. 2021; Rammelt and Ylla-Català 2025). In turn, there is a loss of development potential even as it contributes to economic growth at the upper echelons of the world-system. As Stephen Bunker observes, “Additional value is created when extracted materials are transformed by labor. The important point, however, is that the additional value is generally realized in the industrial center, rather than at the periphery” (1985:45).

This vertical flow of resources, measured as trade with more developed nations, is correlated with undernourishment (Mejia 2023), water pollution (Shandra, Shor, and London 2009), air pollution (Hekmatpour and Leslie 2022), and higher per capita carbon dioxide emissions in non-core nations (Jorgenson 2016b). A variety of primary sector exports from poorer to richer countries are correlated with deforestation outside the core (Austin 2010; Jorgenson 2006; Jorgenson, Austin, and Dick 2009; Noble 2017; Shandra, Leckband, and London 2009). Indeed, developed countries transitioning from deforestation to reforestation over time have done so in large part by importing agricultural and forest products from abroad (Meyfroidt et al. 2020).

Material and pollution intensive manufacturing exports moving up the hierarchy of the world-system comprises a second dimension of ecologically unequal exchange. Foreign capital utilizes

domestic resources and pollution intensive production that is “embodied” in manufactured exports. The degradation and emissions stay behind, but the goods are consumed thousands of miles distant. Accounting for the land, energy, raw materials, and pollution embodied in manufacturing exports points to a long-hidden dimension of the asymmetric flows in the world-system (Jorgenson, Dick, and Mahutga 2007; Hornborg 2006). Bruckner et al. (2023) document a variety of environmental harms “outsourced” to the point of production to meet consumption demands in the European Union: greenhouse gas emissions, land use changes, consumption of surface and ground water, particulate matter formation, photochemical oxidation, and attendant biodiversity loss. Dorninger et al. (2021) highlight that between 1990-2015 all high-income nations are net importers of embodied land, materials, and energy from virtually every other country on the planet. Hickel et al. note (2022:1):

Our results show that in 2015 the North net appropriated from the South 12 billion tons of embodied raw material equivalents, 822 million hectares of embodied land, 21 exajoules of embodied energy, and 188 million person-years of embodied labor, worth \$10.8 trillion in Northern prices—enough to end extreme poverty 70 times over.

Even as natural resources and embodied emissions flow up the hierarchy of the world-system, hazardous materials flow down to what R. Scott Frey labelled the “waste disposable frontiers” (2015:41). Electronic or e-waste, chemical wastes, asbestos, and discarded plastic are prominent examples (Bai and Givens 2021; Frey 2012; Theis 2021; Tong et al. 2022). An estimated 3.3 million metric tons of used electronics were shipped from developed to developing countries in 2022 and often processed within informal or poorly regulated facilities (Baldé 2024). The Basel Convention provides oversight of the trans-border exchange of hazardous materials, but the effort is beset by loopholes, vague definitions, intentional mislabeling, and weak enforcement (Khan 2020; Lucier and Gareau 2015). Of all the loopholes, “recycling” is the biggest. Discarded goods are shipped across borders to leverage juxtapositions in compliance costs and enforcement or mislabeled as destined for secondary recovery when they are fated for end-of-life disposal. Moreover, the transport of toxic materials down the hierarchy of the world-system is characterized by terms of trade ensuring low compensation but high risks. It constitutes one more example whereby richer countries sustain high consumption rates amid comparatively cleaner environmental conditions at the expense of structurally disadvantaged nations.

Lead battery exports across the U.S.-Mexico border illustrate both the second and third dimensions of ecologically unequal exchange. They are a hazardous waste that is legally imported into Mexico only for recycling, but amid the secondary recovery of lead there is a degree of occupational and environmental risk production that is illegal north of the border. The closed loop of the greenest industrial sector in the United States has a detour thousands of miles long and traversing through working class neighborhoods in Mexico possessing little political voice and minimal environmental oversight. It highlights a key weakness of ecological modernization—the distributional effects of technological innovation and attendant economic production. Such environmental cost-shifting operates in tandem with the militarization of the border and rigid

immigration policies. The coercive arm of the state restricts the movement of people northward, but millions of batteries are transported southward each year. These are mutually reinforcing systems as labor and environmental exploitation are interwoven. Occupational and environmental risk run in tandem. In this regard, an industry touted as a model of sustainability reproduces long-standing structural disadvantages in the world economy.

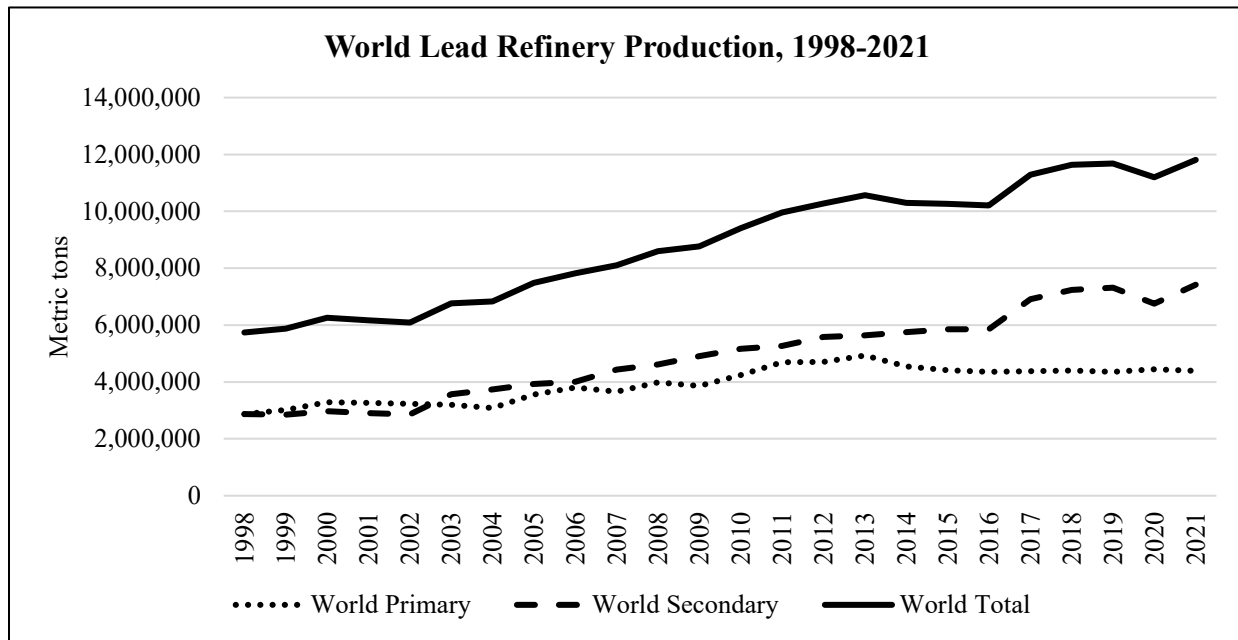
Ecological modernization is predicated upon the adoption of state initiatives, advanced technology, and market mechanisms that incentivize cleaner and less resource intensive industrial production, but such efforts exist in tension with ecologically unequal exchange dynamics in the world-system. The battery trade between the U.S. and Mexico exemplifies this contradiction, and it illustrates that ecological modernization is not an end state, arrived at after a long journey, but an enduring struggle. What may appear to be movement towards an ecological modernity may instead be simply the shifting of the material consequences of production and consumption along the hierarchy of the world-system.

Indeed, ecological modernization theory does not account for an extensive division of labor wherein countries fulfill distinct roles in a larger whole. The mobility of capital is key to the social organization of work spanning national boundaries and contributes to significant distributional effects (Arrighi 1990; Ortiz 2024). These distributional effects are not readily captured through case study research that may point to gains in eco-efficiency within a larger context of increasing material throughput and the imposition of pollution and environmental degradation far afield.

Lead Battery Exports and Ecologically Unequal Exchange Across the U.S.-Mexico Border

Despite the greening of the industry in the U.S. and elsewhere, lead is becoming more ubiquitous rather than less in the world economy. Figure 1 outlines world primary refining based on the smelting of ore and secondary refining from scrap material between 1998-2021.² By 2003 global production relied less on mining and more on recycled materials. Mining is environmentally destructive, and primary smelting is more energy intensive and produces greater greenhouse gas emissions. In this regard, greater reliance on secondary recovery around 2003 is consistent with the ecological modernization principle stressing the reintegration of materials back into production. However, as depicted in Figure 1, primary refining continues to increase. An additional 1.5 million metric tons of ore were produced in 2021 than in 1998. China accounts for half of this increase. Total production, combining primary and secondary sources, doubled between 1998-2021. Although secondary smelting is more efficient and less polluting, it is nonetheless accompanied by occupational hazards as well as stack and fugitive emissions. Figure 1 illustrates the increasing reintegration of materials back into production in lieu of end-of-life disposal but greater overall production over the past two decades.

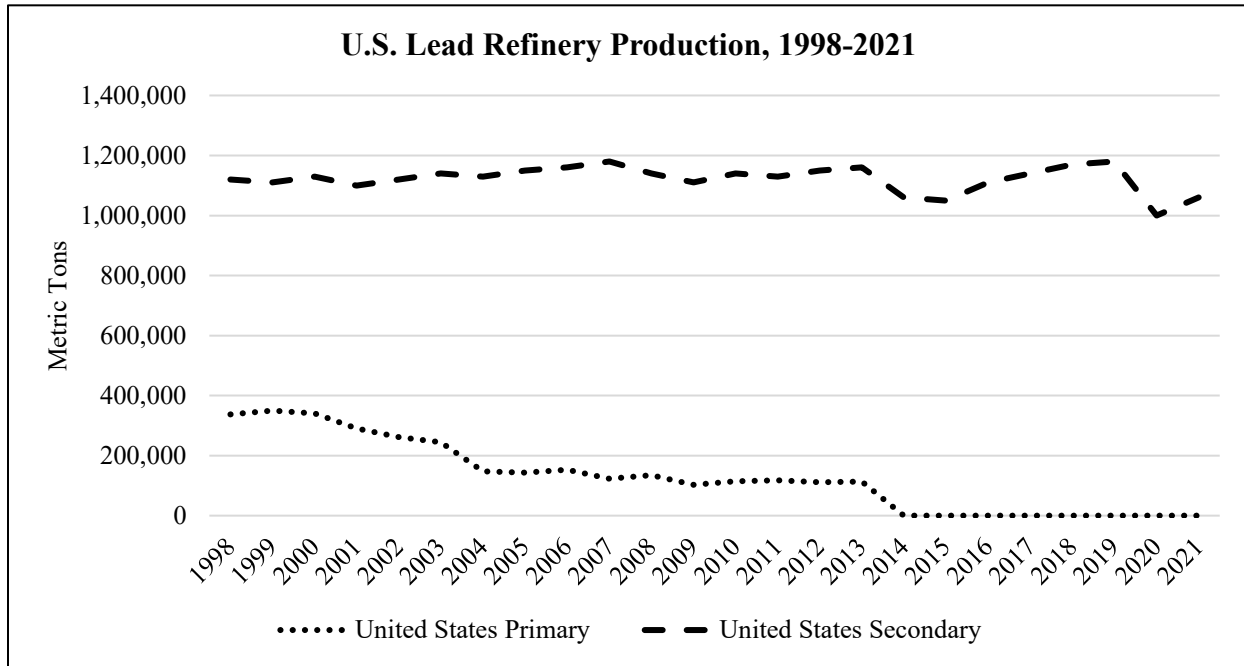
² Data presented in Figures 1 and 2 obtained from the U.S. Geological Survey Annual Mineral Commodity Summaries.

Figure 1. World Primary and Secondary Refinery Production, 1998-2021

It is a central challenge confronting the ecological modernization of industry—efficiency gains relative to the scale of production (York and Rosa 2003). When demand outpaces efficiency, material throughput continues to rise. Indeed, the less of a resource utilized per unit of output, and the declining cost of its production, can contribute to greater overall use of that resource over time (York and Rosa 2003). Described as Jevons paradox, this rebound effect illustrates that technological innovation alone is unlikely to contribute to sustainable social organization (Jorgenson and Clark 2012).

Figure 2 depicts primary and secondary lead refining from 1998-2021 in the United States. Secondary smelting declined slightly over this period and primary refining illustrates a precipitous decrease. In 2013 the last primary lead smelter in the U.S. ceased operations. All refining now encompasses recycled materials—consistent with the tenets of ecological modernization. The reuse of lead is now commonplace. Although primary refining has ceased the mining of lead ore has not, and the U.S. now exports all domestically mined ore abroad and often to places with varying occupational and environmental standards. A large proportion is destined for China. Although secondary refining changed little between 1998-2021, the demand for lead batteries increased over this period. When secondary refining is roughly stable and primary refining is non-existent, but battery sales are growing each year, the difference must be met through export-import patterns. And this is where the challenges of ecological modernization are the most apparent.

Figure 2. U.S. Primary and Secondary Refinery Production, 1998-2021

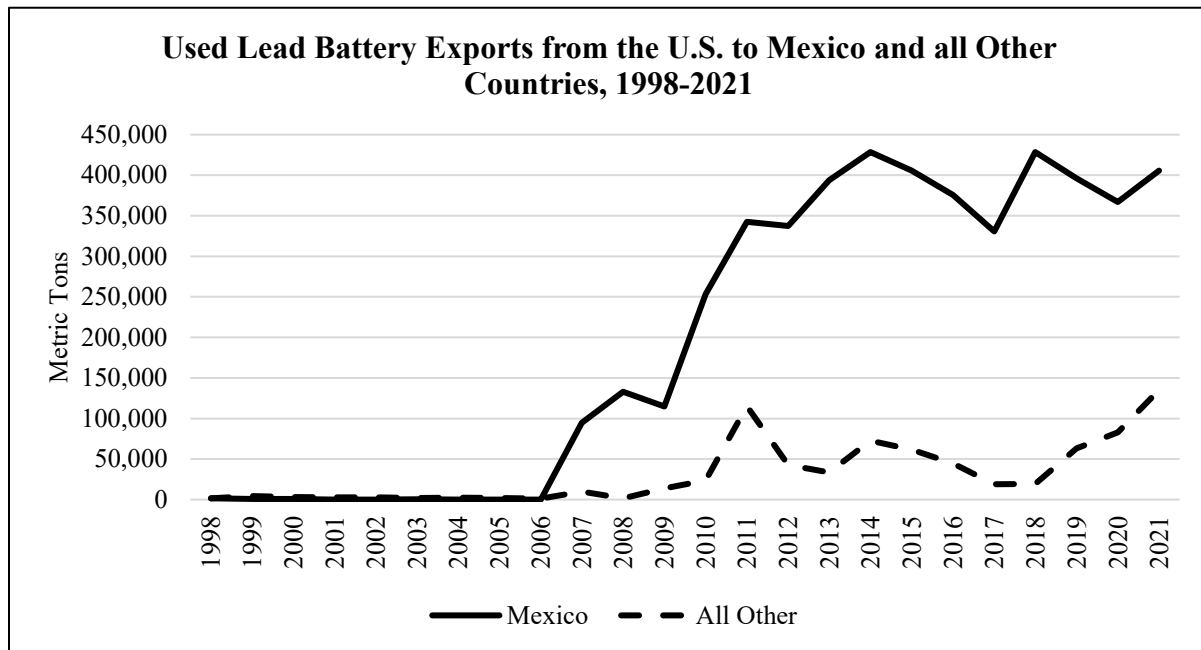


In 2007, the EPA announced plans to reduce the lead emissions standard. The change went into effect in 2008. The National Ambient Air Quality Standard was lowered by a factor of 10 (from 1.5 ug/m³ to 0.15 ug/m³), but it remained unchanged in Mexico (1.5 ug/m³). It is a ten-fold difference, and it has driven millions of used batteries across the border.

Figure 3 illustrates spent battery exports to Mexico abruptly increased coincident to the reduction in the ambient air standard in the United States.³ Between 2007-2021, an average of 88 percent of all exports were shipped to Mexico. An enormous quantity of lead now travels thousands of miles southward, where it is recovered, and then travels thousands of miles northward to whence it began. In between there is regulatory asymmetry. In 2021, more than 400,000 metric tons, 24 million spent batteries, were shipped to Mexico and U.S.-based Clarios accounted for 68 percent of this total.

³ Data obtained from the U.S. International Trade Commission’s DataWeb database (<https://dataweb.usitc.gov/>) and include Harmonized Tariff Schedule (HTS) 8548100540. The data are reported in kilograms but have been converted to metric tons.

Figure 3. Used Lead Acid Battery Exports from the U.S. to Mexico and all Other Countries, 1998-2021



Ecologically unequal exchange underpins consumption at the upper echelons of the world-system amid environmental degradation and threats to human health elsewhere. But borders are the crucial transition points making such disparate outcomes possible. And nowhere is this more prominently expressed than the “unequal territorialization of value” enacted across the U.S.-Mexico border (Heyman 2007:327). Batteries flow freely, but people do not. This is key to the arbitrage at the heart of unequal exchange. Arbitrage referring to the practice of taking advantage of differences in valuation of the same or similar things across two or more distinct settings. These differences are not intrinsic but politically and economically enforced, and borders are the enforcement point. As Josiah Heyman observes (2007:328), “At this seam between the territories of two nation-states, a peculiar phenomenon occurs: monetary valuations of people and goods undergo sudden, stepwise changes as they move across the boundary.”

Unequal valuation is not an episodic dynamic in the modern world-system. It is the modern world-system.

Lead is not a new problem in Mexico. In 1981, researchers sampled the blood of children living near a smelter in Torreón, Mexico. Three-year old Julieta had 34 micrograms per deciliter (Smith 1999), far beyond what is considered “safe” then or now. As she aged Julieta had difficulty learning to read and write, and this only compounded the challenges of an already impoverished life. Retested in 1999, at the age of 22, her blood lead level had doubled and was so high as to cause kidney and brain damage (Smith 1999). That same year research observed that 90 percent of soil samples collected in neighborhoods surrounding industrial sites in Torreón were higher than the EPA’s Superfund cleanup threshold, on the other side of the border (Benin et al. 1999). High

levels of lead pollution were also discovered in Chihuahua and Monterrey (Benin et al. 1999). In 2011, research documented lower average blood lead levels among a sample of children in Torreón due to remediation efforts and enhanced emissions control technology, but the risks remained persistently high, particularly compared to average blood lead levels of children ages 1-5 years, on the other side of the border (Rubio-Andrade et al. 2011; Soto-Jimenez and Flegal 2011).

U.S. exports of spent batteries add a new twist to an ongoing threat to public health. In 2023, non-governmental organizations (NGOs) from both sides of the border attempted to do what Mexican government officials too often do not—account for the influx of contamination downwind of the country's 26 lead smelters. Mexican based Casa Cem and American-based Occupational Knowledge International collected soil samples near seven battery recycling plants and determined that a majority exceeded the Mexican standard for industrial areas (Gottesfeld et al. 2023). Of these, the two owned by Clarios are two of the largest facilities and two of the dirtiest. Despite having only been in operation since 2011, soil collected adjacent to Clarios's facility in Garcia averaged 8,502 parts per million (ppm) or more than ten times the Mexican Standard of 800 ppm (Gottesfeld et al. 2023). Further research documents lower birth weights among infants born within two miles of Mexico's battery recycling facilities in the period after 2009 when exports rose rapidly (Tanaka et al. 2022).

Racial disparities and pollution exist in a parallel manner. This is particularly the case with lead exposure (Muller et al. 2018). Within the United States lead contamination reflects segregated housing markets and a greater proximity of communities of color to sources of industrial pollution. At a broader register, modernity is built upon racial and ethnic marginalization within and across borders (Boatcă 2017; Dunaway and Clelland 2016). It is a crucial fulcrum through which the violence of "progress" is enacted (Morris 2022).

The U.S.-Mexico border does not simply reflect variations in racialized violence; one side contrasted to the other. The border produces legally sanctioned racialized violence (Bermúdez Tapia 2022). Mexican law does not allow for the import of hazardous wastes, including spent batteries, for storage or final disposal but only recycling. But it is a recycling predicated upon differential valuation of human life and health. Moreover, in crucial respects suffering south of the border is invisible to the north because it is expected (Bermúdez Tapia 2022). It is routine.

And profit underlies it all. When EPA officials announced tighter ambient air standards for lead emissions, Clarios officials countered that it would cost the industry \$600 million to comply with the new regulations (Amend 2012). This may appear a substantive sum, but Clarios's revenue in 2024 alone was over \$10 billion dollars (Clarios 2024). The annual revenue of all U.S.-based battery manufacturers is projected to rise to more than \$42 billion by 2030 (Grand View Research 2024).

The United States is the only country exporting spent lead batteries to Mexico at an industrial scale, and this practice is controlled by a handful of firms dictating much of the manufacturing, distribution, and recycling. But Clarios (formerly Johnson Controls) is the "industry leader." In a 2011 *New York Times* story raising concerns about lead-laced emissions, a senior Johnson Controls executive declared that the company would voluntarily upgrade both of their facilities in Mexico

to meet the new American standards (Rosenthal 2011). While emissions controls at the Ciénega de Flores and Garcia facilities have changed little over time, in 2024 it was announced that production at Ciénega de Flores would be increased from 30 to 40 tons per hour (Engitec Technologies 2024).

The Mexican Neoliberal Turn

Mexico is an export manufacturing hub congruent with neoliberal prescriptions and structural adjustment demands (Cypher and Delgado Wise 2010). The 1982 Mexican debt crisis, membership in the General Agreement on Tariffs and Trade (GATT) in 1986, and passage of the North American Free Trade Agreement (NAFTA) of 1994 were pivotal steps. The economy is deeply interwoven with foreign capital and global supply chains amid trade liberalization, fiscal austerity and state downsizing, the privatization of state assets, and deregulation. The shift to export manufacturing as a significant proportion of economic output has been accompanied by social dislocation and a retrenchment of social-class based hardship (Cypher and Delgado Wise 2010; Shefner and Stewart 2011). In tandem, Mexico serves as a central node within the waste-disposal frontier beyond the core of the world-system (Frey 2003, 2015).

Ecological modernization theory has not fully theorized or empirically accounted for the neoliberal transition engulfing many developing countries since the 1980s and the shifting social organization of work. Ecological modernization and neoliberalism are both optimistic about market-based mechanisms and the decoupling of economic growth and environmental intensity. However, the former argues for an active role of the state in disciplining capital accumulation and promoting greener technology and social organization. Neoliberalism favors minimal regulation and the roll back of the state. In particular, ecological modernization has failed to confront *neoliberalism in practice*, which entails the subordination of environmental concerns to market growth and competitiveness.

NAFTA has contributed to the production of large volumes of hazardous waste within Mexico and the importation of toxic and polluting materials (Cruz 2024). In a side accord to NAFTA, it is stipulated but not mandated that Canada, the United States, and Mexico work to harmonize their respective regulations to avoid a “race to the bottom.” Mexico is that bottom. Foreign-owned maquiladora assembly factories generate substantial amounts of hazardous materials: solvents, greases, acids, heavy metals, plastics, synthetic chemicals, wastewater, and sludge. By Mexican law the companies owning these facilities are required to repatriate these wastes, but a large proportion never leave the country nor are they processed domestically (Cruz 2024). There is a hazardous waste void somewhere in Mexico. Further, domestic resource consumption has significantly expanded in the post-NAFTA era (Tetreault 2022; Virta 2022). From 1990-2015, Mexico’s consumption-based carbon footprint increased by 50 percent, land by 32 percent, materials by 46 percent, and the domestic water footprint increased 566 percent, while gross domestic product (GDP) illustrated only moderate growth (Virta 2022).

The larger logic in which Mexico is enmeshed is visible in the dangerous levels of air pollution enveloping Monterrey, and it extends well beyond the impact of battery recycling. A city of 5 million, it often ranks as the worst metro area for fine-particulate air pollution in all of North America (McCormick and García de León 2025). Factories operated by companies from the core leave their imprint on the area while primarily exporting goods to the U.S. The reclassification of toxic substances on one side of a border to recoverable resources on the other is the linchpin whereby hazardous materials make their way around the world (Lucier and Gareau 2015), including Monterrey. In 2022, nearly 200,000 tons of electric arc furnace dust (steel dust) generated during the smelting and recovery of metals in the U.S., including discarded cars and refrigerators, were transported to the Monterrey area for processing (García de León and Quinto Elemento Lab 2025). Steel dust contains lead, arsenic, cadmium, and other heavy metals. Industrial solvents and chemical wastes, including paints, resins, oils, and greases, are also routinely exported to Mexico for reprocessing (García de León and Quinto Elemento Lab 2025; Lewis and Fry 2023).

The United States is not a party to the Basel Convention, and this gives U.S.-based companies more flexibility in transporting hazardous materials to Mexico. It likely contributes to a greater degree of mislabeling, falsified documentation, and inadequate tracking (Schmidt 1999). This makes it more difficult for Mexican government officials to monitor hazardous waste and easier for actors participating in the illicit trade of toxic materials crossing into Mexico.

Battery recycling and a myriad of other hazardous production processes are emblematic of being “trapped in the middle.” Semi-peripheral nations possess greater industrial capacity than the peripheral countries but are not fully integrated into the world-system. They are characterized by economic development, and then stagnation as they have the capacity to elicit foreign investment but struggle to retain the profits generated from export manufacturing and exhibit limited domestic reinvestment (Anastasi 2023). Pollution intensive export manufacturing is one strategy whereby semi-peripheral nations leverage their middling position, but they nonetheless confront structural barriers (Anastasi 2023). They industrialize but illustrate a lack of economic diversification and weak environmental state capacity.

Wages differ globally even in the absence of differences in productivity, and this is perpetuated through the mobility of capital amid the more constrained movement of laborers (Arrighi 1990; Emmanuel 1972; Ortiz 2024). This wage-gap underpins the unequal exchange of labor value through international trade. The most developed economies amassed 826 billion hours of embodied labor through trade with the developing countries in 2021 (Hickel et al. 2024). It is a “net-appropriation” cutting across all skill levels of labor and all major economic sectors, including agriculture, mining, manufacturing, and services (Hickel et al. 2024).

Wages are lower in Clarios’s facilities in Mexico, but the new batteries fashioned from recovered lead are not sold at local prices but at the world market price, as are batteries made in the U.S. In turn, batteries remanufactured in Mexico do not sell for less simply because of the lower labor costs incurred in their production, and, in turn, extra surplus value is embodied in each battery relative to their production in the U.S. Value is captured not simply on the factory floor but through trade across the U.S.-Mexico border.

Examining Figure 3, exports to Mexico only grew in anticipation of tighter regulations. Whatever the equation prompting Clarios and other companies to move operations abroad, clearly, environmental considerations were key. This is consistent with Bunker's examination of the underdevelopment of the Amazon region of Brazil (1985). He argued uneven development hinges on separate but complementary types of unequal exchange. The "hidden transfers" of value underpinning relative positioning in the world-system are enacted through the exploitation of labor and the extraction of natural value. Bunker defines natural value as the productive potential inherent to different raw resources, realized through human labor, and the capacity to disrupt or alter ecological systems without accountability or recompense. The underlying thread is uneven material exploitation amid the inherent materiality of all production and consumption. In turn, the procurement of energy, biomass, minerals, and the off-loading of the waste products of industrial production are crucial considerations in addition to wage differences and the cross-national flow of surplus value.

In this regard, the secondary recovery of lead constitutes a form of unequal exchange as surplus value, environmental sink-capacity, and bodily risk are differentially allocated across the U.S.-Mexico border through the combined forces of corporate strategy, state policy, and the materiality of hazardous production. It illustrates the challenges of ecological modernization when the social organization of work spans distinct regulatory regimes and is characterized by the fluid movement of capital and more constrained mobility of labor.

Of note, the extraction of surplus labor and environmental sink-capacity across the U.S.-Mexico border is characterized by contradictory processes. Clarios's decision to recycle spent batteries near Monterrey generates industrialization, albeit an industrialization subservient to the prerogatives of a core-based company, and deindustrialization and the loss of 360 jobs in Florence, South Carolina (Brown 2021). Working class communities on both sides of the border have been impacted. There is social dislocation to the north and threats to human health and the environment to the south. Unequal exchange reproduces differential impacts depending upon class positioning in both the United States and Mexico.

Dependent industrialization or industrialization shaped by and oriented primarily towards the interests of external actors is made possible through the contributing services of domestic elite factions within Mexico (Cypher and Delgado Wise 2010; Morton 2013). They are tied to external capital by way of mutual benefit and serve as political brokers, financiers, subcontractors, and intermediaries. Their economic interests are not linked to broad-based development of the national economy but, rather, industrialization under conditions of external control and trade dependence (Cypher and Delgado Wise 2010; Morton 2013). In this regard, unequal exchange in the world-system is not so much imposed upon a country in a unilateral manner but coordinated with select class segments within a given country (Arrighi 1990; Cardoso and Faletto 1979).

There are localized benefits tied to the recycling of batteries in Mexico that include employment, subcontracting with domestic firms providing support and services, and the payment of taxes. In tandem with ties to domestic elites, these activities help to secure local consent and to shield companies from sustained critique. However, these benefits coexist with, and arguably do

not outweigh, the simultaneous production of risks to human health on the factory floor and in surrounding communities. More broadly, localized benefits do not outweigh the costs tied to the ecologically unequal exchange of a crevice hazard across the U.S.-Mexico border with significant, life-long consequences for children, in particular.

The lead-acid battery industry is an ecologically modernized segment of the U.S. economy and an important component of green technology, including the expansion of renewable energy sources. However, the development of green technology tends to reproduce rather than stand outside the structural inequities of the broader world-system (Bonds and Downey 2012; Ewing 2017). Raw materials are often extracted from countries outside the core and exact a heavy environmental toll (Bonds and Downey 2012; Ewing 2017). And as battery recycling in Mexico illustrates, even the most circular economies may detour far afield to leverage the differences in regulatory regimes. Ecological modernization theorists have not fully confronted such contradictory processes underlying the division of labor in the world economy. It is a challenge to develop profitable, greener industrial production anywhere when the social organization of work across countries is characterized by enduring structural inequities.

Ecological modernization has been described as a fundamental turn in the most developed economies towards less resource-intensive and polluting economic production (Mol and Sonnenfeld 2000). However, as Bunker notes (1985), all production begins and ends with a material foundation, and this includes ecologically modern technology. A “holistic” view of green technology uncovers a variety of contradictions (Bonds and Downey 2012; Ewing 2017). The pervasiveness of lead pollution throughout the world is a further challenge as electric vehicles and renewable energy are dependent upon lead and other materials, including lithium, cobalt, and rare earth minerals. Indeed, green technology necessitates an increasing reliance upon lead in a world already beset by lead-related threats to public health.

Conclusion

The social organization of work across the world-system is dependent upon the patterned exploitation of nature, and these patterns magnify and legitimize the ability of some to exploit the resources and environmental carrying-capacity of others. The most developed countries coordinate the organization and remuneration of work across vast distances and cast “ecological shadows” extending well beyond their political boundaries (Chew 2001). They do so along three intertwined dimensions of ecologically unequal exchange. This includes the trade in under-valued raw materials up the hierarchy of the world-system, the domestic resources and pollution intensive materials “embodied” in manufacturing exports from the non-core nations, and the off-shoring of hazardous wastes down the hierarchy of the world-system. The thread running through all three dimensions is the shifting of the environmental burden.

In 2007, the U.S. EPA announced plans to implement stricter lead pollution standards—the first such change in three decades. The intent was to improve public health, but the outcome, in large part, was the transference of environmental risk. Over the past 20 years the volume of spent

batteries shipped to Mexico has steadily risen. In 2021, more than 400,000 metric tons, 24 million used automotive batteries, were exported to Mexico.

This highlights the ecologically unequal exchange of a crecive contaminant to side-step tighter regulations. Rather than internalizing compliance costs within the production cycle, U.S.-based companies leverage regulatory asymmetries and perpetuate the unequal valuation of labor and human health. In this regard, the border produces racialized environmental violence as batteries flow freely but people do not. The weight and veracity of this violence is readily detectable. It is inscribed in the blood of those laboring under a higher occupational threshold and children living and playing in the shadow of smelter facilities operating under a ten-fold greater threshold for the imposition of ambient, lead-laced, air emissions.

U.S.-based Clarios owns two of the largest lead smelters in Mexico. These facilities process up to two-thirds of the batteries completing the U.S.-Mexico arbitrage cycle. Curbing the bulk of this practice is dependent upon the actions of just one company. A firm ranked “one of the most ethical companies in the world” in 2025, for the third year in a row (Clarios 2025).

Mexico is a central node within the waste-disposal frontier of the world-system, and it encompasses more than battery recycling. But, in important regards, suffering south of the border is invisible because it is expected (Bermúdez Tapia 2022). The tacit endorsement of the slow violence of industrial production between the U.S. and Mexico is commonplace, as it is down the hierarchy of the world-system in general. Indeed, the production of crecive environmental violence is often dismissed in the expectation that, over time, such sacrifices will abate as nations develop. However, as Giovanni Arrighi observes, “Industrialization is not the equivalent of development” (1990:12). Manufacturing has expanded in tandem with Mexico’s neoliberal turn. A significant proportion of the manufacturing base, however, is subject to outside control and attuned to the needs of external capital and markets abroad as well as competition from dependent industrialization within other semi-peripheral and peripheral countries (Cypher and Delgado Wise 2010). As ecological modernization theorists stress, the embedding of ecological rationality within multiple spheres in society reflects evolutionary, processual change as nations develop. Dependent industrialization is not development, however, nor does it tend towards ecological modernization.

On paper, the lead battery industry is the greenest sector of the American economy. Nearly all lead comes not from ore but secondary recovery. Such transformations are notable but scarcely the uniformly positive success story portrayed by the industry. And while ecological modernization is predicated upon the adoption of state initiatives, advanced technology, and market mechanisms that incentivize cleaner and less resource intensive industrial production—such efforts exist in tension with ecologically unequal exchange dynamics. Indeed, a key weakness of ecological modernization theory is failure to confront an extensive division of labor in which countries fulfill distinct roles in a larger structure characterized by unequal exchange and reverberating distributional effects.

Most people do not think about batteries, even as they are pervasive in our daily lives. They are crucial to the viability of wind and solar electricity generation as well as the development of electric vehicles and the decarbonization of economic growth. Whether lead-acid or lithium-ion,

we are at the precipice of a “battery-powered future” even as they are already everywhere (Turner 2022:14).

That we are on the precipice of a battery powered future raises a number of challenges. They are already everywhere, and so too is lead-related disability and disease. The disability-adjusted life years foregone attributable to lead exposure worldwide grew from 21.8 to 33.8 million years from 1990-2021 (IHME 2025). This is despite significant strides in banning lead gasoline throughout the world and more moderate success restricting lead-based paint. Disability-adjusted life years (DALYs) refers to the number of years lost to illness, disability, or premature death. One DALY is equivalent to one year of healthy life foregone, and 95 percent of the 33.8 million years of healthy life lost in 2021 occurred outside the core of the world-system (IHME 2025). China and India account for roughly 50 percent of the global years of healthy life lost in 2021 due to lead pollution (IHME 2025). China’s lead consumption outpaces that of the core countries due to concerted investment in battery manufacturing and rapid industrialization. This calculation includes exposure from all sources, including food and consumer products, but battery recycling is the largest industrial source of lead pollution, constituting around 85 percent of all lead consumption worldwide (World Health Organization 2017). Although China and India account for a substantial proportion of the total burden, many peripheral nations illustrate higher rates of death and disability due to lead pollution, including Pakistan, Nepal, Zambia, Uganda, and Nigeria (IHME 2025). Over half of children in many peripheral nations have blood levels deemed lead poisoning in the core countries (Ericson et al. 2021).

In 2019 alone there were 5.5 million adult deaths due to cardiovascular disease derived of lead exposure and the loss of 765 million IQ points among children under five, overwhelmingly occurring in the developing countries (Larsen and Sánchez-Triana 2023). The economic cost in 2019 was approximately \$6 trillion U.S. dollars, or seven percent of global GDP (Larsen and Sánchez-Triana 2023). In turn, lead exacts a significant toll on human health, and the impact is recursive as it is shaped by structural disadvantage and contributes to its perpetuation.

This raises broader questions regarding lead exposure and the totality of the burden of hazardous production outside the core. How many hazardous materials flow down the hierarchy of the world-system in the name of recycling and secondary recovery? What are the cumulative and recursive effects of these waste recovery circuits on human health and uneven development? What strategies do community groups and NGOs employ in highlighting and contesting differential valuation and the slow violence of industrial production?

Spent battery recycling across the U.S.-Mexico border is but one instance of ecologically unequal exchange in a hierarchical world-system whereby more dominant nations gain access to natural resources and shift the risks of pollution intensive production. Future research examining the export-import of used lead batteries from a social network approach would be valuable in depicting the contours of this practice at a more macro register. Untangling such relational dynamics would contribute to a more comprehensive understanding of the enactment of ecologically unequal exchange and the attendant recursive effects (Theis, Betancourt, and Sikirica 2024). Moreover, it would further highlight the unequal territorialization of value and associated

threats to public health from the flow of lead across borders. This matters as we are on the precipice of a battery-powered future (Turner 2022), even as lead-related disability and death is already a significant burden in Mexico and, indeed, throughout the modern world-system.

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Disclosure Statement: The author declares no conflict of interest.

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Revisiting World-Systems Theory in the Age of Dual-Core Competition Technological Disruption, Institutional Shifts, and the Repositioning of the Periphery

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Abstract

This study revisits Wallerstein's world-systems theory to assess its explanatory leverage under dual-core U.S.–China competition, accelerating technological change, and institutional reordering. We argue that core–semi-periphery–periphery hierarchies persist but are increasingly mediated by (1) dual-core bargaining spaces, (2) institutional chokepoints in trade, finance, and standards, and (3) politically mediated technological infrastructures, including digital-currency and platform-based payment systems. Using a structured secondary-analysis design, we first synthesize contemporary debates to derive observable implications for semi-peripheral and peripheral mobility. We then map evidence from systematically selected policy documents, institutional reports, and peer-reviewed studies to evaluate whether reported autonomy gains reflect durable structural shifts or contingent responses to shocks (e.g., sanctions, inflation, payment disruptions). The findings indicate heightened boundary fluidity and new modalities of contestation, yet continued asymmetries in rule-setting, liquidity provision, and standards dependence. We conclude by specifying boundary conditions and measurement priorities for future cross-national tests.

Keywords: World-Systems Theory, U.S.–China Rivalry, Decentralization, Global Inequality, Technological Restructuring



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The traditional discourse of world-systems theory in international political economy is primarily based on the work of Immanuel Wallerstein, who conceptualized the world-system as an enlarged version of a society, characterized by a defined scope, structure, membership, organization, and an internal cohesion shaped by shared rules (Wallerstein 2015). Due to historical and spatial differences, Wallerstein (2015) identified two distinct types of world-systems. The first is a cross-regional power structure governed by imperial politics, in which authority is centralized in a single actor or institution. In essence, such a system relies on centralized control to extract economic surplus from producers. The emergence of the second world-system introduced a mechanism of division of labor and exchange, whereby inequality is institutionalized, allowing the transfer of economic surplus to entities that do not necessarily hold political power.

Wallerstein also suggested that the long-run contradictions of capitalism would generate recurrent crises and eventually open the possibility of systemic transformation beyond the existing order (Wallerstein 2015). For present purposes, however, the analytical value of his framework does not depend on accepting any deterministic end point. Rather, its continuing relevance lies in its capacity to explain how recurring instability, uneven exchange, and hierarchical differentiation remain embedded in the organization of the global economy. This study therefore treats Wallerstein's prognosis not as a settled prediction to be validated, but as a theoretical prompt for examining whether contemporary changes alter the structure of hierarchy itself or merely change the mechanisms through which it is reproduced.

In contrast, peripheral countries are primarily producers of raw or primary goods such as agricultural and mineral products and depend on low-cost labor, often exhibiting weak state capacity or even occupying an ambiguous space between sovereignty and colonial subordination. Their economies are dominated by primary industries rather than industrial or service sectors. Semi-peripheral countries, meanwhile, are both constrained by core powers and capable of exerting influence over peripheral regions. These states occupy a fluid position within the world-system, susceptible to shifts either upward to the core or downward to the periphery, depending on external factors such as financial crises or geopolitical changes. Historical cases, such as the Netherlands in the sixteenth century, Britain in the eighteenth century, and the current U.S. hegemony, exemplify the transformative nature of global leadership, in which core countries possess not only political and economic power but also discursive authority in shaping the world order (Falkner 2005).

However, the conflict between theory and contemporary realities calls into question the continuing applicability of Wallerstein's model. Emerging technologies, especially artificial intelligence, may disrupt traditional labor-based value systems, undermining the structural divisions among core, semi-periphery, and periphery. Furthermore, the rapid evolution of the global economy has blurred the once-clear boundaries of international labor divisions. To

distinguish clearly between the author's argument and existing scholarship, this paper specifies the attribution of claims about shifting sources of influence in the contemporary world-system. Prior research on hegemony and global knowledge hierarchies suggests that dominance is increasingly exercised through agenda-setting authority, informational infrastructures, and the institutional production of legitimacy, rather than through coercion or commodity control alone (Persaud 2022; Marginson and Xu 2023). These studies show that power is reproduced not only through material advantage but also through the normalization of preferred categories of expertise, governance, and rule-making. Building on this literature, the present study argues that contemporary core power is partly mediated by control over platforms, standards, and knowledge networks. Such mechanisms do not replace older instruments of domination; rather, they coexist with sanctions, alliance structures, and financial leverage, thereby extending the channels through which uneven exchange and institutional asymmetry are reproduced in the digital era. Building on this insight, the present study argues that the contemporary reconfiguration of core power is partly mediated by control over platforms, standards, and knowledge networks, mechanisms that can coexist with traditional instruments such as sanctions and military alliances. This clarification matters for world-systems analysis because it preserves the theory's central concern with uneven exchange while updating the channels through which surplus extraction and rule-making are organized in the digital era.

Another area of inquiry concerns the simultaneous, but not identical, inward turns of the United States and China under intensifying strategic rivalry. In the U.S. case, the political return of Trump reinforced protectionist and re-shoring narratives aimed at strengthening domestic manufacturing, limiting external dependence, and using tariff instruments as leverage in broader geopolitical competition. In China's case, the policy emphasis was framed less as conventional protectionism than as the strengthening of internal circulation, domestic demand, and resilience under conditions of external pressure and deglobalizing uncertainty (Woon and Sidaway 2025; Zou, Dresner, and Yu 2025). The analytical significance of this parallel lies not in treating the two strategies as equivalent, but in asking whether their coexistence signals a reconfiguration of hegemonic practice within the world-system. Although such strategies may be economically justified, this convergence raises critical questions: Do these approaches align with the framework of world-systems theory, or do they indicate a fragmentation of global hegemonic discourse between the two powers? This dilemma forms the central concern of the present study.

Through an integrated approach combining literature review and empirical analysis, this paper seeks to revisit Wallerstein's world-systems theory in light of current global transformations. It examines whether the theoretical framework requires revision or whether observed developments are the result of structural shifts in the global order. Ultimately, the study aims to reconsider the international economic implications of U.S. and Chinese efforts to fortify their domestic markets and assess how such strategies might reshape the contemporary world-system.

To clarify the paper's theoretical stance, this study does not abandon Wallerstein's framework; instead, it proposes a bounded revision that preserves the core–semi-periphery–periphery logic while specifying the conditions under which positional mobility and hierarchy-blurring become plausible. Concretely, we revise world-systems analysis along three dimensions: (1) dual-core bargaining spaces, where competition between leading states alters the price of alignment and expands strategic room for semi-peripheral actors; (2) institutional chokepoints, where rule-setting and standards (trade, finance, technology governance) continue to reproduce asymmetries even under apparent multipolarity; and (3) technology as politically mediated infrastructure, where digital innovations can reconfigure transaction costs and surveillance capacities but do not operate as power-neutral tools. Taken together, these revisions generate a theoretically grounded expectation: apparent autonomy gains in the Global South are most likely to emerge where dual-core rivalry weakens enforcement at institutional chokepoints, but they are least likely to endure where technological infrastructures remain anchored in core-centered standards, capital, and compliance systems. The point is therefore not to claim a generalized erosion of hierarchy, but to specify the conditions under which temporary bargaining space may open without producing durable structural transformation.

Literature Review

World-systems theory continues to be a key analytical framework in contemporary international relations and global political economy studies, particularly in the context of shifting global power dynamics and the rise of multipolarity. The theory offers a structural lens through which the interactions among core, semi-peripheral, and peripheral states can be understood. Buzan and Lawson (2015), from a political economy perspective, recast interstate competition as a mode of interaction embedded within the wider capitalist order. They argue that core countries, led by the United States, sustain global stability through arrangements that are inseparable from structural inequality and systemic domination. They further suggest that the post-liberal era and mounting global crises have weakened the foundations of U.S. hegemony, rendering its leadership role increasingly vulnerable within the world-system.

Buzan and Lawson (2015), from a political economy perspective, redefines interstate competition as a form of collaboration within the capitalist system. They argue that core countries, led by the United States, maintain global stability through mechanisms fundamentally grounded in inequality and systemic domination. Buzan and Lawson (1994) further suggests that the post-liberal era and mounting global economic crises have eroded the foundations of U.S. hegemony, rendering its leadership role increasingly vulnerable within the world-system.

The application of world-systems theory has also extended into other disciplinary domains. Adhikari (2023) applies the framework to disaster studies, analyzing Nepal's dependency on core

and semi-peripheral states following the 2015 earthquake. The study reveals that post-disaster reconstruction and international aid reflect entrenched systemic hierarchies. Coordination failures among national institutions and the conditional nature of international aid, often provided as loans underscore the continued dominance and influence of core countries over peripheral governance.

From the perspective of global academia, Steger (2023) critiques the tension between world-systems theory and global studies. Despite their epistemological differences, both traditions share commitments to opposing methodological nationalism, promoting interdisciplinarity, and advancing critical thinking. Through an analysis of Arno Tausch's academic contributions, Steger advocates for renewed dialogue and integration between these theoretical paradigms to foster greater epistemic pluralism.

Regarding the trajectory of American hegemony, Grinin and Korotayev (2021) systematically outline seven structural vulnerabilities observed during the Trump administration, ranging from political polarization and declining global trust to economic bubbles and isolationist foreign policy. They argue that these weaknesses foreshadow a decline in U.S. dominance and the restructuring of the global system. Beeson and Crawford (2023) compare the Marshall Plan with China's Belt and Road Initiative, highlighting how China lacks the institutional architecture and ideological narratives that supported U.S. global leadership during the Cold War. This, they argue, constrains China's hegemonic potential.

A more systematic engagement with world-systems scholarship requires situating U.S.–China rivalry within debates on hegemonic transition and long-run accumulation cycles. Building on Arrighi's account of systemic cycles of accumulation, the present moment can be interpreted less as a clean rupture with hierarchical ordering than as a transitional phase in which financial expansion, institutional reconfiguration, and geopolitical contestation unfold simultaneously. This perspective is analytically useful because it cautions against reading visible rivalry as proof of structural symmetry. Even under conditions of dual-core competition, historically accumulated advantages in finance, security architecture, and rule-setting may continue to reproduce core-like asymmetries. The paper therefore uses “dual-core” not to imply equalized power, but to identify a more contested and unstable configuration of hierarchy. This perspective helps discipline the paper's contribution in two ways. First, it reframes U.S. responses (tariffs, technology controls, monetary-financial strategies) as attempts to manage positional erosion during a transitional moment rather than as episodic policy swings. Second, it cautions against equating observable rivalry with structural symmetry: even under dual-core competition, command over financial infrastructures, standard-setting arenas, and security institutions may continue to generate core-like advantages. Accordingly, the paper's revised claim is that world-systems theory remains relevant, but must be updated to specify how financial-institutional power and technological governance mediate transition dynamics in the present cycle.

Persaud (2022) examines how the field of international relations itself contributes to sustaining hegemonic orders. By tracing the reciprocal roles of scholars and policymakers, he demonstrates how liberal hegemony is normalized through dominant epistemologies that legitimize U.S. leadership.

Conversely, Marginson and Xu (2023) critique the epistemic hierarchies embedded in the global knowledge system. They argue that the Anglo-American-centered scientific networks systematically marginalize non-English and local knowledges, constituting a form of cultural hegemony. They caution against the oversimplification of world-systems theory and call for an “ecology of knowledges” approach to rethink the governance and distribution of scientific authority on a global scale.

On the dynamics of China’s rise, Liu and Tsai (2021) analyze the internal contradictions within Chinese capitalism, including the dominance of state-owned enterprises, reliance on foreign investment, and the constrained development of the private sector. These factors, they argue, hinder China’s transformation into a global consensus-based hegemon. Shah (2023), applying securitization theory, examines the Trump administration's antagonism toward the Belt and Road Initiative, critiquing its underestimation of local agency and positive contributions to Asian infrastructure development. Liu (2024), through media analysis, identifies the personalization of political leadership in Chinese and U.S. media, demonstrating how institutional and cultural values shape public perceptions and leader legitimacy.

Blanchette, J. and Medeiros (2023) explore how Xi Jinping integrates the concept of “national rejuvenation” into China’s global strategy, emphasizing the role of personal leadership in legitimizing power. Callahan (2016) provides a comprehensive evaluation of China’s policy initiatives including the “Chinese Dream,” “Community of Shared Future for Mankind,” and the Belt and Road Initiative arguing that while these policies reflect strategic ambition, China has yet to effectively expand its global influence amid growing international pushback.

Regarding cross-strait policy, Madoka (2022) analyzes Xi Jinping’s shift from military intimidation to “unilateral unification” strategies, signaling a move toward structural changes in the Taiwan Strait status quo. Xu and Yu (2022) reveal the dual strategies embedded in China’s internet governance, combining domestic authoritarian consolidation with efforts to shape global digital norms. These developments also carry implications for Taiwan, particularly as semiconductor competition, digital governance, and security signaling become more tightly linked within the broader U.S.–China rivalry. Rather than treating this as a separate forecasting question, the present paper uses the Taiwan case primarily to illustrate how regional actors are repositioned within overlapping technological, military, and institutional pressures generated by dual-core competition.

From a broader geopolitical perspective, Loke (2021) proposes the concept of “compound hegemony,” suggesting that the U.S. and China may develop a layered system of competition and cooperation in East Asia that challenges linear models of hegemonic transition. Caria (2022) notes the contestation among Western-led multilateralism, China-led institutional transformations, and South–South cooperation, arguing that developing countries may find new opportunities for asserting agency within this evolving global order. Gürcan (2022) emphasizes the potential of Eurasian regional organizations such as the Shanghai Cooperation Organization, the Collective Security Treaty Organization, the Eurasian Economic Union, and the Asian Infrastructure Investment Bank to offer non-hegemonic models of governance. These frameworks integrate security, economic, and cultural dimensions, presenting an alternative to U.S.-centric global hegemony.

In summary, this body of literature underscores the continued relevance and critical potential of world-systems theory in analyzing the transformation of global power, the erosion of U.S. hegemony, and the emergence of regional integration initiatives. Through interdisciplinary approaches, scholars have not only deepened our understanding of U.S. decline and China’s strategic expansion but have also developed new conceptual tools to respond to the challenges posed by multipolarity and the post-hegemonic international order. As a result, world-systems theory has evolved beyond a static structural model and now serves as a vital resource for rethinking agency in the Global South, institutional competition, and future possibilities for cooperative global governance (Haug, Braveboy-Wagner, and Maihold 2021).

The Impact and Influence of World-Systems Theory

Since its introduction by Immanuel Wallerstein, world-systems theory has provided a profound analytical framework for understanding the structure of the international political and economic order. It reveals the systemic inequalities embedded in the global division of labor, emphasizing that the development of the global economy is not homogeneous but stratified through a tripartite hierarchy of “core–semi-periphery–periphery.” This stratification not only defines the economic roles and functional positions of states within the global system but also determines the direction of resource, technology, and capital flows, as well as the forms through which benefits are distributed.

Within this structure, core countries possess systemic advantages through their control of high value-added industries, advanced technology, and vast capital resources. These advantages allow them to monopolize global market rules and production standards, thereby consolidating their dominant status in the world-system (Babic 2023). In contrast, peripheral countries are largely relegated to the supply of raw materials, low value-added production, and dependent development models. Consequently, they struggle to escape economic dependency and political subordination

to core powers. This structural imbalance is not only visible at the international level but is also reflected domestically within nation-states. Whether analyzed through the lens of geography, industrial distribution, or market competition, the allocation of value between producers and beneficiaries often exhibits a one-way flow from “internal cores” to “internal peripheries.” This means that even within a single country, capital and resources tend to concentrate in specific regions or social classes, reproducing inequality as a structural feature.

Despite these parallels, the key distinction between domestic and international systems lies in the presence of the state as a political entity. The state, through its centralized government, possesses mechanisms of political integration that enable it to redistribute resources and balance power through taxation, subsidies, and social welfare policies. These tools allow for partial mitigation of market failures and social inequality. By contrast, the international system lacks a supranational authority with binding power. While core countries can exert influence through economic sanctions, tariffs, and technological embargoes, they cannot intervene directly in the policy execution or resource allocation of other states as a central government would. As a result, global governance relies more on the balance of power and negotiated interests, rather than on structural enforcement (Ulum 2022).

Situated between core and periphery, semi-peripheral countries serve as crucial intermediaries. These states often possess some degree of industrial capacity and technological competence, enabling them to extract residual value from the global system left behind by core states. During periods of political instability or economic crisis in the core, semi-peripheral countries may improve their relative status through flexible policy adjustments and competitive repositioning. This underscores the dynamic nature of international hierarchies, which shift in response to variables such as natural resource distribution, technological innovation, institutional design, and geopolitical developments. To maintain their dominance, core countries often rely on institutional exclusion and economic exploitation to control the flow of technology and capital to subordinate regions. In the age of globalization and digitalization, this is increasingly facilitated through “center-optimized” models of production, research and development, and distribution, making it difficult for non-core countries to transcend structural constraints.

To overcome these structural barriers, subordinate countries must develop long-term national strategies involving comprehensive planning across multiple dimensions, including policy-making, education, industry, and technology. Only through such coordinated efforts can they strengthen autonomy and bargaining capacity within the global system and shift away from structurally imposed dependency. Broadly speaking, world-systems theory reveals the hierarchical nature of contemporary global capitalism and reminds us that domestic and international factors must be analyzed in tandem. Only by integrating these dimensions can one fully grasp a country’s position within the global structure and identify pathways for future development.

The U.S. Shift from Global Political-Economic Engagement to Domestic Reorientation

In recent years, the United States has increasingly emphasized a logic of “national interest first” in its foreign and economic policy decisions (Epstein 2019), signaling a fundamental shift in its approach to the global political and economic order. The “America First” doctrine, prominently advocated during Donald Trump’s first presidential term, is not a novel invention but rather a revival of the isolationist tradition rooted in early twentieth century American political thought. This policy orientation emerged from the interwar period’s reflections, during which American society began to question whether overinvolvement in international affairs might undermine domestic economic interests and social stability. During times of economic expansion, particularly in the post–World War II era foreign aid and international engagement were viewed as strategic tools for maintaining U.S. global leadership. However, in periods of economic downturn or structural stagnation, such commitments were increasingly criticized as causes of domestic resource depletion and industrial decline.

This dual concern with economic self-interest and national security has led to the re-legitimation of isolationist and protectionist policies, shaping the foundational contours of the Trump administration’s trade agenda (Farias 2022). This trajectory became even more pronounced following Trump’s re-election in 2024, as his renewed emphasis on “America First” reflected a broader political and economic consensus within the U.S.: a reevaluation of globalization’s impact on domestic industries and labor markets, and a push to reduce external dependencies in order to restore the nation’s manufacturing base.

Against this backdrop, trade protection measures and economic sanctions emerged as primary policy instruments. Though outwardly framed in terms of tariffs and export-import regulations, these tools are in fact strategically deployed in response to global technological competition and the scramble for strategic resources, especially in the context of U.S.-China geopolitical and economic rivalry. The transformation of U.S.-China relations has transcended trade disputes, evolving into a broader competition over status and influence within the international system. China’s rapid ascent is increasingly perceived as a direct challenge to U.S. global leadership, prompting intensified technological, financial, and geopolitical contests.

From the perspectives of institutional economics and world-systems theory, Trump’s tariff wars and manufacturing revitalization agenda may be interpreted as a structural adjustment initiated by a core country to preserve its hegemonic position. By imposing tariffs on China, Mexico, Canada, and other trade partners, the United States aims to erect trade barriers that encourage supply chain reshoring and stimulate domestic employment (Jones 2025). These policies also function as political signals, intended to pressure bilateral and multilateral trade renegotiations that would yield more favorable terms for the U.S. Notably, trade relations with Canada and Mexico are not limited to commodities but also touch upon politically sensitive issues

such as immigration and labor export (Carlson and Wheeler 2024). In this context, tariffs become a strategic bargaining chip to force concessions on labor standards, industrial location, and border policy.

On the issue of the Russia–Ukraine war, Trump’s stance has diverged significantly from that of former President Biden’s interventionist approach (Jakupec 2025). Trump’s more restrained posture reflects skepticism toward expansive overseas military commitments, arguing that unconditional financial and military support for Ukraine could excessively drain U.S. domestic resources. This strategic pivot has unsettled European allies, compelling them to consider scenarios in which they may need to establish autonomous defense systems and diplomatic capacities should the U.S. further retreat from its traditional “global police” role. More critically, a U.S. policy of non-intervention could facilitate Russia’s expansion of regional influence while simultaneously allowing China to extend its economic and strategic presence in Asia, Africa, and beyond, thereby undermining the U.S.-led liberal international order.

In this context, Trump’s economic nationalism and protectionism not only reflect domestic voter anxieties over economic insecurity but may also be viewed through the lens of world-systems theory as a strategic recalibration by a core country in response to the rise of semi-peripheral and peripheral states. According to this theory, core states often maintain their structural advantage and control over resources through technological monopolies, market manipulation, and institutional design. Recent U.S. policy initiatives in advanced sectors such as semiconductors, biotechnology, and telecommunications can be interpreted as direct responses to China’s push for technological self-reliance and industrial upgrading. Through supply chain realignment and export controls, the United States aims to hinder China’s technological advancement and limit its global market share, thereby achieving strategic delay and disruption.

From a structural economic perspective, decades of outsourcing to Asia and Latin America have eroded the U.S. industrial base (Baily and Bosworth 2014), exacerbating deindustrialization and rising unemployment among middle- and lower-income groups. Trump’s approach of raising tariffs and import barriers to increase the cost of foreign goods is designed to enhance the relative competitiveness of domestic products and incentivize local manufacturing and consumption. This strategy rests on an import-substitution economic model, premised on the belief that consumers, facing higher prices on imported goods, will shift their purchasing preferences toward domestic alternatives, thereby boosting capacity utilization and job creation.

However, the success of this policy depends on whether domestic industries possess sufficient supply elasticity and innovation capacity, and whether the labor market can absorb the newly created demand for workers. Without these conditions, tariff increases alone may simply generate inflationary pressures and reduce consumer welfare, thereby weakening the economy’s long-term growth potential.

In sum, the policy shifts undertaken during Trump's presidency reveal a distinctly inward-looking orientation that has nonetheless generated systemic effects on the global political-economic order. While such policies may yield short-term domestic benefits in terms of employment and industrial output, their long-term efficacy in reviving U.S. manufacturing and sustaining core-state status remains uncertain and contingent upon the evolving dynamics of global power. Furthermore, as other major powers proactively reconstruct their regional influence and economic sovereignty, the realignment of global power will likely reshape the core-periphery structure of the world-system. In this light, the challenges facing the United States arise not only from external competition but also from deep-seated structural transformations and the evolving resilience of its institutional frameworks.

China's Economic Slowdown and Domestic Demand Expansion Policy

Since the launch of its reform and opening-up policy, China has relied heavily on infrastructure-led economic growth as a core pathway to modernization (Wu 2000). Particularly in the twenty-first century, the strong correlation between infrastructure development and economic performance has become a key mechanism explaining China's rapid growth (Hou 2011). Under the tri-fold national strategy of urbanization, industrialization, and modernization, the Chinese government has invested massively in transportation, energy, telecommunications, and urban development. Infrastructure development, as a precursor, has generated vast employment opportunities and upstream-downstream industrial linkages, fostering a dual-growth structure driven by both domestic demand and exports. As manufacturing has gradually shifted from light industry and OEM models toward high-end heavy industry, the demand for industrial upgrading and technological renewal has surged. Enterprises, in this process, have relied heavily on debt financing to expand production capacity and maintain technological competitiveness. While such mechanisms have contributed to short-term industrial expansion and output growth, they have also led to mounting debt levels among local governments and financial institutions, generating long-term structural risks (Tao 2015). When diminishing returns on investment and deteriorating balance sheets persist, these dynamics risk triggering systemic financial crises.

Among these risks, imbalances in the real estate sector are particularly significant. Demographic shifts further challenge the country's economic fundamentals. As China converges with developed economies in terms of population structure, declining birth rates and population aging have reduced labor supply, weakened consumption momentum, and increased pressure on pension and welfare systems, all of which constrain fiscal space and corporate profitability (Bloom, Canning, and Fink 2010). As the demographic dividend diminishes, China's historical reliance on cheap labor and resource-intensive growth becomes increasingly unsustainable. As China converges with developed economies in terms of population structure, trends such as declining

birth rates and population aging have reduced the labor supply, lowered consumer willingness to spend, and increased pressure on social welfare systems all of which constrain fiscal space and corporate profitability (Bloom, D. E. et.al, 2024)2010. As the demographic dividend diminishes, China's historical reliance on cheap labor and resource-intensive growth becomes increasingly unsustainable. This compels policymakers to reassess the resilience of internal growth engines and the strategic configuration of national industries.

Externally, the environment has grown increasingly uncertain. Structural competition between the U.S. and China in the field of technology, along with institutional frictions over tariffs, directly affects the global positioning of China's export-oriented industries and undermines the stability of industrial supply chains. In cutting-edge sectors such as semiconductors, artificial intelligence, biotechnology, and green energy, the U.S. and its allies have imposed export controls, technology embargoes, and formed industrial alliances to restrict Chinese firms' access to critical components and advanced technologies, measures intended to delay China's industrial upgrading (Jiao et al. 2024). Although such restrictions pose short-term challenges to technological advancement, they have also accelerated policy momentum toward indigenous innovation and import substitution. As external dependency becomes a source of economic vulnerability, technological self-reliance has been elevated to a national strategic priority. This has prompted increased state investment in core technologies and strategic sectors. Driven by external pressure, this process of "re-industrialization under deglobalization" has paradoxically created an opportunity for China to upgrade its industrial structure, strengthen domestic market integration, and advance its internal circulation strategy (Woon and Sidaway 2025).

Within the framework of the "dual circulation" strategy, exports and investment remain key growth drivers, but domestic demand and consumption upgrading have been repositioned at the center of China's economic agenda. In the context of a slowing global economy and rising external trade pressures, China's large population base and expanding middle class have become vital stabilizing forces in its economic transition. By expanding domestic consumption, improving social security, enhancing public services, and nurturing emerging industries, the government aims to increase economic resilience while addressing structural issues such as regional disparities and social stratification. Furthermore, technological development and talent cultivation are critical to overcoming external blockades. Through reforms in higher education, the strengthening of vocational training, and the encouragement of scientific research, industry-academia collaboration is becoming a key model for supporting innovation and upgrading. Government tools such as state-guided capital, policy-based finance, and industrial guidance funds have been employed to accelerate capital flows into high value-added sectors, with the hope of gaining a favorable position in the next wave of technological and industrial transformation.

Nevertheless, this transition is not without risks. On one hand, technological upgrading requires long-term investment and is fraught with high R&D risks, making it difficult to rapidly replace external technological dependencies. On the other hand, although the domestic market has vast potential, its effective activation depends on the restoration of consumer confidence, improved income distribution, and the removal of institutional barriers. Without these conditions, structural mismatches between supply and demand may persist. In addition, international sensitivity to China's industrial expansion and state intervention remains high. Failure to manage trade frictions and align with international norms could lead to heightened geopolitical and economic tensions, undermining external stability.

In sum, China is now entering a critical stage of structural adjustment and economic reconfiguration, shaped by overlapping pressures from internal debt risks, industrial transformation demands, and external geopolitical challenges. While infrastructure-driven high growth has made notable historical contributions, its long-term sustainability and fiscal viability are increasingly constrained. A new phase of economic development must be built on policy innovation, institutional reform, and structural optimization. In the post-pandemic global economic landscape, China's ability to strike a balance between social stability and enhanced innovation capacity will determine whether it can successfully achieve its stated goal of "high-quality development" (Chen et al. 2024).

Conflict and Tariff Escalation Between the Two Economic Powers

Although the United States and China do not easily fit into the traditional typologies of "core–semi-periphery" or "semi-periphery–periphery" within world-systems theory, their bilateral dynamics have undoubtedly emerged as a principal force in the restructuring of the contemporary global system. According to world-systems theory, a state's position in the global hierarchy is shaped by a constellation of factors, including capital flows, technological control, institutional discourse, and power resources. As the two most economically expansive and strategically influential entities in the present era, the U.S. and China are competing over the allocation of global resources, the shaping of international institutions, and the establishment of technological standards. This competition has effectively transcended conventional hierarchical categorizations, forming what some scholars identify as a new "dual-core competitive system" (Lind 2024). Within this system, both countries seek to enhance their structural influence and discursive authority through economic strength, technological self-reliance, and institutional leadership.

A useful historical benchmark is the post–Second World War period, when U.S.–Soviet competition also produced a form of dual-core rivalry within a globally stratified order. Yet the contemporary U.S.–China configuration differs in at least three analytically relevant respects. First, whereas Cold War competition was partially insulated by segmented blocs, today's rivalry unfolds

inside deeply integrated value chains and financial networks, making coercion and decoupling simultaneously more disruptive and more selective. Second, institutional arenas have expanded from security alliances to dense regimes governing trade, investment screening, data, and technology standards, creating new “chokepoints” through which hierarchy is reproduced. Third, digital infrastructures (payment systems, platforms, and programmable money) make monetary and informational governance central battlegrounds, blurring the boundary between economic and security logics. This comparison clarifies the paper’s claim: dual-core competition is not unprecedented, but its contemporary mediation through integrated markets and digital governance changes how semi-peripheral and peripheral actors navigate constraint and opportunity.

Historically, the United States has maintained its core status in the world-system through dollar hegemony, military alliances, and dominance in global technological innovation. However, as China’s economic output has expanded rapidly, particularly in manufacturing, high-tech industries, and infrastructure, spillover effects have generated a sense of systemic and institutional anxiety within the U.S. In response, the Trump administration adopted a series of aggressive external measures, including withdrawal from the Paris Agreement (von Allwörden 2025), renegotiation of NAFTA (Arnaud 2024), and the imposition of punitive tariffs on China and other trade partners. These actions were designed to use tariff leverage to extract concessions and preserve U.S. leadership in the global economic order. In contrast, China has advanced a different trajectory through initiatives such as the Belt and Road Initiative (Zou et al. 2022) and the domestic “dual circulation” strategy, focusing on global infrastructure cooperation, domestic demand expansion, green technology, and digital finance. While differing in form and ideology, both countries ultimately aim to enhance institutional confidence at home and increase their capacity to project global influence.

In the domain of trade conflict, the U.S.–China rivalry has evolved from disputes over trade balances to a contest for control over global value chain restructuring and technological standard-setting. While tariffs may impose short-term pressure on specific sectors, they can also lead to long-term inefficiencies, resource misallocations, and increased costs for consumers. For instance, U.S. tariffs on Chinese imports have curtailed China’s market expansion but have simultaneously raised domestic prices, elevated production costs, and intensified inflationary pressures. China has retaliated through export restrictions on rare earth elements and intensified efforts toward domestic substitution, resulting in a structural impasse where both sides incur losses. The ripple effects of this confrontation include inflation, supply chain instability, and capital market volatility, casting doubt on the efficacy of trade tools as instruments for geopolitical competition.

In the monetary and financial spheres, the rivalry extends to digital currencies and decentralized financial technologies. While the U.S. government has adopted a cautious stance

toward cryptocurrencies, segments of the financial sector have increasingly recognized Bitcoin as a strategic reserve asset for hedging against inflation and economic uncertainty.

Importantly, technological disruption does not unfold outside power; core actors can strategically re-institutionalize innovations to preserve structural advantages. Rather than treating stablecoins and crypto-infrastructures as inherently anti-hegemonic, a world-systems approach highlights how leading states and incumbent financial institutions may domesticate these instruments through regulation, licensing, reserve requirements, and integration with existing payment and surveillance architectures. Such moves can convert an initially “circumventing” technology into a new layer of core-centered monetary governance, expanding monitoring capacity, shaping standards, and channeling liquidity through approved intermediaries. This mechanism matters for the paper’s central claim: even if peripheral states adopt digital tools to reduce reliance on traditional rails, the durability of any autonomy effect depends on whether the underlying infrastructure becomes anchored in core jurisdictions, core currencies, and core-defined compliance regimes. Hence, the relevant analytical question is the political economy of standard-setting and institutional capture, not technological novelty per se.

Some institutional voices have even advocated for integrating cryptocurrencies into national financial strategies. Meanwhile, China has taken a more proactive approach by launching the digital yuan, aiming to establish financial digital sovereignty. Through regional mechanisms such as BRICS currency proposals and cross-border payment platforms, China seeks to undermine the dollar’s monopoly in global trade and settlement (Gedikli and Erdogan 2025). This form of tech-driven financial competition reflects a deeper restructuring of the global monetary order, challenging the primacy of sovereign currencies through transnational technological innovation. The implications extend beyond core powers, affecting the economic governance practices of semi-peripheral and peripheral states.

This paper therefore treats digital currency innovation as an ambivalent development whose distributional effects depend on state capacity and external constraints. While decentralized payment rails may lower certain transaction frictions or provide stopgap channels under stress, they can also weaken domestic resource mobilization, amplify volatility transmission, and expose peripheral economies to new forms of dependency mediated by platforms, exchanges, stablecoin issuers, and compliance infrastructures. For developing countries, the critical question is not whether “crypto” is emancipatory, but under what conditions experimentation improves monetary-policy room without eroding tax bases, capital-control effectiveness, and financial integrity. Accordingly, any claimed autonomy gains should be framed as contingent and potentially reversible, especially where technological infrastructures and standards remain anchored in core-centered capital and regulatory networks. This adjustment shifts the paper from celebratory

narratives toward a world-systems-consistent concern with how new infrastructures reallocate surplus, risk, and monitoring capacity across the hierarchy.

Significantly, U.S.–China competition has had profound consequences for countries in the Global South, particularly those situated in the semi-periphery and periphery. These states have long struggled under the structural constraints of core-dominated monetary policy and capital flows, making it difficult to stabilize exchange rates, control inflation, or upgrade their industrial sectors. Decentralized cryptocurrency technologies offer these countries an alternative to traditional financial systems.

To operationalize “financial autonomy” in a way compatible with the paper’s secondary-evidence design, the analysis focuses on observable proxies rather than sweeping claims. Autonomy is treated as a limited capacity to (a) sustain cross-border settlement under stress, (b) reduce immediate exposure to single-currency liquidity shortages, and (c) preserve domestic policy instruments (taxation, capital controls, prudential regulation). The paper therefore evaluates digital-currency initiatives by asking three questions: Do they measurably diversify payment channels during disruption? Do they shift volatility and balance-sheet risk onto households and local financial intermediaries? And do they increase or weaken the state’s monitoring and enforcement capacity? This framing turns “crypto adoption” from a normative opportunity into an empirical puzzle about risk redistribution and governance capability. It also clarifies why autonomy gains, when present, are likely to be partial and conditional, especially where dependence on offshore exchanges, stablecoin issuers, or external compliance regimes remains high.

El Salvador’s adoption of Bitcoin as legal tender is frequently cited as an institutional challenge to dollar dependence and as an attempt to expand monetary sovereignty through borderless digital assets. At the same time, available evidence indicates that the case is marked by substantial volatility exposure, uneven public uptake, and significant implementation frictions rather than a straightforward autonomy gain (Msefula, Hou, and Lemesi 2024; Rappalini 2024). The analytical value of the case therefore lies less in proving successful structural breakout than in illustrating how peripheral states may use technological experimentation to test the limits of existing monetary hierarchies under conditions of external constraint.

Other semi-peripheral countries, such as Nigeria, Argentina, and Venezuela, have also begun to experiment with cryptocurrencies as mediums of exchange or reserve assets (Rosales et al. 2024), in response to hyperinflation, currency depreciation, and foreign exchange shortages.

A balanced world-systems reading must also incorporate scholarship emphasizing the destabilizing effects of cryptocurrencies in developing contexts. In particular, widespread crypto usage may weaken domestic resource mobilization where transactions become harder to monitor, tax capacity remains limited, and capital flight pressures intensify through offshore channels

(Rosales et al. 2024). Related concerns include heightened exposure to externally generated volatility, the uneven social distribution of losses during market downturns, and persistent dependence on exchanges, wallet infrastructures, and compliance systems embedded in core-centered networks. These risks do not eliminate the possibility of limited tactical benefits under stress, but they sharply narrow the conditions under which digital-currency experimentation can plausibly be interpreted as an autonomy-enhancing strategy. These cautions do not negate the possibility of limited tactical benefits under stress, but they sharply delimit the scope of “autonomy” arguments: where state capacity and regulatory reach are weak, digital-currency diffusion may deepen uneven exchange by shifting adjustment costs onto peripheral societies while preserving core advantages in liquidity provision, compliance rule-setting, and crisis backstops.

Although decentralized financial mechanisms have yet to replace traditional monetary systems entirely, their flexibility and adaptability under specific economic conditions are beginning to alter the discourse and practice of global financial governance. These developments pose a latent challenge to the monetary hegemonies constructed by both the U.S. and China. Moreover, the spread of decentralized currencies and their technological applications may catalyze new models of financial restructuring, enabling more diverse and asymmetric capital flows within the world-system. This could potentially destabilize the one-way dependencies that have historically characterized core–periphery relations.

In conclusion, although the U.S. and China do not conform to traditional roles within the world-systems framework, their economic strategies, policy practices, and technological deployments have created a complex, multilayered, and dynamic global power configuration. Through tariffs, technological competition, currency innovation, and institutional diffusion, both powers are contesting the leadership of the world-system. While such rivalry may generate structural shocks and institutional uncertainties in the short term, it also creates opportunities for reimagining global economic governance and experimenting with institutional innovation. For states situated at various levels of the world-system, this great power rivalry simultaneously represents a source of risk and a potential catalyst for transformation, opening new avenues for strategic positioning and institutional redesign. In doing so, it challenges and reshapes the traditional core–periphery structure in increasingly profound and diversified ways.

Reflection and Discussion

Within the current global context, the structural classifications proposed by world-systems theory are increasingly characterized by ambiguity and fluidity. Traditionally, world-systems theory divides the global economic system into three hierarchical levels: core, semi-periphery, and periphery, based on a state's role in the international division of labor and its control over power resources. However, with rapid technological advancement and the continued intensification of

global industrialization, particularly in the domains of information and communication technology (ICT) and artificial intelligence this stratified system no longer holds absolute stability. Instead, it now exhibits patterns of multi-layered interaction and role reconfiguration. Through technological innovation and institutional reform, states may transcend their historically assigned positions and redefine their functions and status in global political economy, thus challenging and potentially reversing the foundational logic of world-systems classification.

This phenomenon is especially evident in the actions of the two leading economic powers, the United States and China, as they adopt distinct foreign and trade policies aimed at drawing various countries into their respective spheres of influence. The U.S. emphasizes traditional strategies such as free markets, democratic values, and military alliances. In contrast, China promotes initiatives like the Belt and Road Initiative, the Asian Infrastructure Investment Bank (AIIB) (Jiang, Liu, and Zhang 2024), and South–South cooperation (Gray and Gills 2016), creating a network of international cooperation centered on infrastructure and resource development. In this competitive landscape of dual influence, many countries historically occupying subordinate positions within the world-system have acquired greater bargaining power and economic incentives. These states can now maneuver between competing power centers to secure a more favorable share of surplus value and opportunities for industrial upgrading. Against the backdrop of emerging technologies such as digital currency, blockchain, and decentralized finance (DeFi), some peripheral countries are exploring new models of autonomous economic governance that reduce reliance on traditional financial systems and sanction regimes.

To avoid overstating hierarchy-blurring, the paper distinguishes discursive fluidity from structural mobility. Digital payment experiments may create short-run workarounds, but they rarely eliminate the core mechanisms through which classification is reproduced: control over liquidity backstops, access to hard-currency financing, and dependence on standards and compliance networks. Accordingly, the claim is not that technological innovation renders core–periphery distinctions obsolete, but that it can temporarily reallocate bargaining leverage and risk exposure across nodes of the system. In world-systems terms, this implies a shift from static positional labels to an analysis of sector-specific capabilities and constraints: a state may gain transactional flexibility in one domain (remittances, cross-border settlement) while remaining structurally dependent in others (reserve assets, credit conditions, technology inputs). This refinement makes the argument consistent with the theory’s emphasis on uneven exchange and the political organization of markets, while still accounting for observable episodes of experimentation in the Global South.

For example, blockchain technologies not only disrupt traditional transaction verification mechanisms but also offer novel solutions in areas like sovereign currency management and cross-border settlement. For peripheral nations long constrained by the dollar-dominated financial order

and international regulatory oversight, the adoption of decentralized technologies presents an opportunity to mitigate the effects of economic sanctions and potentially gain a first-mover advantage in digital finance and crypto-asset markets (Arner, Barberis, and Buckley 2017). These developments suggest that when technological innovation becomes a pathway for breaking structural dependencies, conventional classifications based on economic size, trade dependence, or geographic proximity may no longer fully capture the complexity and dynamism of the global system.

In this context, the world-system appears to be gravitating toward a bipolar configuration, with the U.S. and China forming a dual-core structure that increasingly defines the global economic and political order. This shift diverges from earlier linear models of a single hegemon surrounded by dependent states. Under the emerging framework, formerly peripheral nations that strategically utilize external resources and enact domestic reforms may ascend to semi-peripheral or intermediary positions, functioning as bridges between North and South or East and West. While such transformations cannot occur overnight, the disruptions caused by the COVID-19 pandemic, such as global supply chain fragmentation and systemic instability have compelled many states to re-evaluate their development models and structural positioning, thereby enhancing their capacity for adaptation and realignment.

Nevertheless, such transformations do not signify the disappearance of peripheral states but rather point to the coexistence of “developed” and “underdeveloped” logics within the same classification system. In the restructured system, clear divisions of labor persist, but with reduced mobility between strata and heightened barriers to structural transition, leading to the entrenchment of internal socioeconomic hierarchies. In other words, while the boundaries between periphery and semi-periphery may appear blurred, functional and institutional asymmetries remain entrenched and are continually reproduced through mechanisms such as global value chains, financial systems, and technological standards. In particular, with the widespread adoption of AI and automation technologies, the labor cost advantage that peripheral countries once relied upon is rapidly losing its efficacy. Global capital now increasingly favors technology-intensive over labor-intensive investments, marginalizing the role of labor in the international division of labor and reinforcing trends of capital monopolization and technological dependency.

Consequently, the traditional vertical hierarchy is gradually giving way to a more horizontal, multi-nodal network structure. States are no longer classified solely by hierarchical status but by their functional roles and control capacities within specific sectors of the global value chain. While such horizontal structuring may enhance system flexibility and interactivity, in practice, these relationships remain asymmetrically interdependent. Core countries continue to dominate critical technologies and standard-setting capabilities, whereas non-core states must adjust and adapt to

these prevailing norms. While this interdependence holds potential for cooperation, its inherent asymmetry may amplify systemic risks and the likelihood of conflict.

Moreover, the role that states play in the international system is increasingly determined by their ideological alignment and institutional choices, rather than by traditional factors such as geography, transportation access, or physical barriers. While geopolitics remains a key variable in shaping national security and trade policy, its scope has expanded to include institutional compatibility, technological competition, and ideological antagonism. In this evolving scenario, the ideal of globalization defined by free trade and open markets is gradually being replaced by tariff protectionism and economic nationalism. Especially after the exposure of global supply chain vulnerabilities, more states are prioritizing domestic interests through trade barriers, strategic resource controls, and the reinforcement of national production chains to ensure economic security. Accordingly, the efficient utilization of surplus value has become central to national policy design and resource allocation strategies. Amid intensifying competition for labor, capital, and land, states are compelled to fine-tune their internal resource deployment to enhance productivity and social stability, thereby responding effectively to external pressures.

In sum, the contemporary evolution of the world-system reflects three interrelated shifts: the blurring of classification boundaries, the restructuring of functional roles, and the increasing ideologization of global relations. Technological development and institutional innovation have loosened rigid structures and created new opportunities for states to reposition themselves in the international order. At the same time, these shifts have intensified global uncertainty and competition. Whether the world-system will evolve into a more pluralistic and mutually beneficial network structure or regress into binary divisions and protectionist closure remains contingent on how states coordinate their institutional choices, value commitments, and policy practices. Only through structural understanding and institutional adjustment can the global community navigate the volatility of systemic transformation while pursuing stable development and shared interests.

Conclusion

Undoubtedly, the world has always been a dynamic system characterized by cyclical change. Such cycles are neither linear nor governed by fixed patterns; rather, they are shaped by the complex interplay of diverse factors. Within this global structure, the intersecting effects of environmental change, climate anomalies, and political dynamics have long rendered any single disciplinary or theoretical lens insufficient to fully account for the trajectories of global development. From ecological disasters and resource depletion to great power rivalries and geopolitical tensions, these forces collectively challenge the structural stability of the world-system. Although Immanuel Wallerstein's world-systems theory originated in the twentieth century as a critique of capitalist expansion and global labor division, it retains substantial explanatory power. Particularly amid

deepening global inequality and power asymmetries, the tripartite classification of core, semi-periphery, and periphery continues to offer a coherent framework for understanding international hierarchies.

Nevertheless, the operational logic of the world-system now faces increasing pressure for adjustment, driven by rapid technological advancement and transformations in modes of social organization. The emergence of digital technologies and artificial intelligence has fundamentally altered the nature of economic interdependence among nations. Decentralized innovations such as cryptocurrencies, blockchain systems, and digital platforms challenge traditional models of international economic governance and monetary hegemony. The “empirical” impact of technological change also compels both academic and policy communities to reconsider the “normative” adjustments required in response. In other words, as technological transformations reshape modes of production and distribution, the monopolistic advantages long maintained by core countries through capital, technology, and institutional exports may be undermined by institutional innovation and technological leapfrogging from non-core states, ultimately altering the global hierarchy and the distribution of discursive authority.

While the vision of decentralization has yet to be fully realized, and practical implementation still faces technical, legal, and social acceptance barriers, the underlying values and ideologies of this vision already pose a latent threat to the current system. There is a growing awareness of the structural exploitation and inequality embedded in centralized systems, particularly for countries in the Global South, which have historically remained subordinate in international markets, with their resources controlled and institutions shaped by external powers. These constraints have limited their developmental momentum and exacerbated social tensions. Against this backdrop, calls for systemic revision have emerged not only from theoretical critiques within academia but also from the practical experiences and institutional experiments of peripheral and semi-peripheral countries. Through institutional reform, economic alliances, and digital sovereignty initiatives, these states are seeking to reposition themselves within the global order, moving from dependency toward autonomy, and from the periphery toward semi-peripheral status.

However, systemic revision does not necessarily entail a transition toward greater equality for all. In fact, it is likely to produce further polarization. As new technologies and capital concentration accelerate, countries with first-mover advantages and institutional flexibility may consolidate their positions at the core or near-core levels, fostering a new wave of technological and market monopolies. Meanwhile, countries lacking infrastructure and technical capacity may become increasingly marginalized, facing growing digital divides and development traps. Hence, while systemic restructuring may loosen the grip of long-standing structural constraints imposed by a handful of dominant states, it may simultaneously generate new forms of inequality and

asymmetric risk distribution. Such transformations are not merely economic in nature but also deeply impact national political cultures and social configurations.

Within this broader development context, both domestic and international political environments are shifting toward a complex interplay of multi-level competitive-cooperative dynamics. On the domestic front, governments are challenged to balance the demands of globalization with localized needs, particularly in navigating structural transitions through industrial upgrading, social welfare reforms, and democratic governance enhancement. Internationally, states must grapple with pressures of institutional selection amid multipolarity and ideological divergence, engaging in varying degrees of adjustment and competition across systems, technologies, and values, thereby redrawing the contours of global political order. This entangled landscape of domestic and international contestation implies that state governance can no longer be approached through singular logic; instead, it must address both internal social pressures and external systemic competition, posing new challenges to national sovereignty, global cooperation, and institutional design.

In conclusion, the contemporary world-system is undergoing a critical historical transition and reconfiguration. Traditional classifications and power structures are loosening, giving way to a more complex configuration shaped by technological disruption, ideological fragmentation, and institutional rivalry. Reflections on centralization and aspirations for systemic reform signal a broader effort to forge mechanisms of global governance that are more inclusive and equitable. At the same time, there is a need to remain vigilant about emerging risks, including systemic polarization and institutional fragmentation. Navigating this turbulent period will require a delicate balance between stability and transformation, and between competition and cooperation, challenges that lie at the heart of the world-system's future development.

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Disclosure Statement: Any conflicts of interest are reported in the acknowledgments section of the article's text. Otherwise, authors have indicated that they have no conflict of interests upon submission of the article to the journal.

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Development of Information Technologies and Specifics of their Use to Reach Ideological Goals:

International experience and practices

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Abstract: Information technology, particularly through its use for ideological purposes, is an issue that is becoming increasingly important amid digital transformation and geopolitical change. This study uses a comparative framework to analyze how information technology influences both the internal and external policies of states by examining the impact of information technologies on political processes and ideological strategies in the United States, China, Kazakhstan, and selected EU member states (Germany, France, and Poland).

Using comparative and content analysis, as well as the historical logical method, we assess how digital technologies shape political ideology and systems of social governance over time. Systematized international practices and national approaches to the use of information technologies are compared, focusing on their role in shaping ideological narratives.

Findings show that China and Kazakhstan use digital technologies to reinforce state control through censorship, social media monitoring, and the dissemination of propaganda via fake accounts. In the United States, policy efforts emphasize cybersecurity, labeling inaccurate content, and regulating digital platforms during election campaigns. In the European Union, legislative measures have been actively developed to regulate online content, combat disinformation, promote platform transparency, and support anti disinformation platforms and independent fact checking initiatives. Across all cases, the use of social media to influence historical memory and political attitudes has become a widespread trend.

The practical significance of this research lies in its recommendations for enhancing public policy in the areas of digital regulation, media literacy, and countering disinformation.

Keywords: digital policy, disinformation, information security, social media, media literacy



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With the rapid development of information technologies (IT), the digital space is becoming not only an arena for knowledge sharing and communication, but also a powerful tool for influencing mass consciousness. States around the world are increasingly using IT to pursue their ideological objectives – from building patriotic spirit to promoting foreign policy narratives and suppressing dissent. The relevance of the topic is especially growing in the context of global digitalisation, the growing role of social networks, algorithms, and artificial intelligence (AI) in the dissemination of information. International practice shows that approaches to the use of IT for ideological purposes vary depending on political regimes, the level of freedom of speech, and technological development of countries.

The use of information technologies for advancing the implementation of ideological goals gives rise to a series of global threats, that extend beyond national borders and have taken on a transnational character. The digital environment now makes it possible to influence the consciousness of millions of people in real time, shaping or manipulating public opinion regardless of borders. Ideological messages disseminated through the Internet and social networks rapidly become global, allowing states and non-state actors to interfere in the internal processes of other countries, undermining their informational and political independence (Abdygalym et al., 2025).

Modern research confirms the growing significance of information technologies in the transformation of ideological processes and the development of public consciousness. Hyzen and Van den Bulck (2021) explored the role of ideological entrepreneurs in spreading conspiracy narratives through digital popular culture. The researchers emphasised that social media has become a space for the formation and amplification of radical ideologies that influence users' political consciousness. Hyzen (2021) revisited the theoretical foundations of propaganda, offering a contemporary framework for analysing digital propaganda in the context of evolving communication channels and algorithmic amplification. Mexhuani (2024) examined a theoretical model for ideological analysis in post-conflict societies. The researcher emphasised that political ideologies play a crucial role in post-conflict transformation processes, helping to interpret different notions of progress, identity, and democratic participation. While Mexhuani focuses on ideological frameworks, this study examines how digital technologies interact with political ideologies in contemporary contexts. Xiaoyang et al (2021) examined the effectiveness of reforms in ideological and political education in Chinese universities using artificial intelligence technologies. In their opinion, digitalisation of the educational process can markedly increase students' ideological loyalty and automate the analysis of political attitudes.

Feldstein (2021) detailed how technology has become a tool of digital authoritarianism. The researcher provided examples of countries where state authorities use artificial intelligence, algorithms, and online platforms to control the ideological landscape, including manipulation of public opinion and suppression of dissent. Saida (2023) argued that a technological approach to

ideological security is becoming a critical element of public policy, especially in the context of digital globalisation. The researcher emphasised the significance of cybersecurity as a means of preventing ideological subversion.

Olimova (2023) investigated the influence of ideological processes on the development of the national idea in the context of globalisation. The study emphasised that the digital environment is becoming an arena of ideological confrontation, where attempts to transform the identity of society take place. Park et al. (2022) also analysed the perception of intelligent information technology in society in the context of digital transformation. The researchers emphasised the significance of the social context for the adoption of new technological solutions and their integration into sustainable development, including political and ideological spheres. Subekti et al. (2025) performed a bibliometric analysis of publications on political campaigns in social networks, identifying trends and dominant strategies of digital campaigning. The study found that technology has become a key factor in political mobilisation and ideological impact.

A gap in previous research is that most studies focus either on individual countries or solely on the technical aspects of information technology, leaving out comparative analyses of precisely how the ideological use of IT operates in a global context. The impact of social networks or disinformation within the Western world is often studied, while the experience of countries such as Kazakhstan or China is insufficiently systematised and comparatively rarely analysed in terms of their political and cultural specificities. There is also a lack of a comprehensive approach to analysing the role of transnational platforms in the implementation of state ideological strategies in different political regimes, from liberal democracies to authoritarian systems.

The purpose of this study is to investigate how information technologies are used to implement ideological goals in different countries, particularly in Kazakhstan, European countries, the USA, and China.

Materials and methods

The study is analytical and comparative in nature, combining an overview of current international practices of using information technologies to achieve ideological goals with an analysis of their impact on political processes in different countries. The time frame covers the period from 2015 to 2025, to capture the evolution of digital transformation, the globalization of information flows, key legislative initiatives (e.g., EU laws from 2017-2018, U.S. electoral reforms in 2016), and the use of technology in political strategies.

The study employed methods of content analysis and secondary analysis of data obtained from scientific publications, official documents of international organizations, and national governments (Law of the Republic of Kazakhstan No. 567 “On Communications”, 2004; Law of the Republic of Kazakhstan No. 93-VIII “On Mass Media”, 2024; Article 274 of the Criminal

Code of the Republic of Kazakhstan, 2014; S.486 – Honest Ads Act, 2023; Digital Millennium Copyright Act, 1998; NetzDG, 2017; Law Against Information Manipulation, 2018; Digital Services Act, 2022; Digital Markets Act, 2022; Audiovisual Media Services Directive, 2018). The analysis also built on studies that examined the specifics of information technology use in different regions, including China, the USA, Kazakhstan, and EU countries (Germany, France, Poland), as these countries present distinct approaches to information technologies and digital platforms in achieving ideological goals. This enables a comparative analysis of their political strategies, regulation of information flows, and the impact of technology on public opinion in diverse political and social contexts (Feldstein, 2021; Hyzen, 2021; Humprecht et al., 2022; Bradford, 2023; León & Rosen, 2021; Park et al., 2022; Hua, 2022).

The method of comparative analysis is used to systematically compare: (1) national approaches to the use of digital technologies for ideological purposes; (2) legal and regulatory frameworks governing online content; (3) the use of social media platforms and digital campaigns in shaping public opinion; and (4) the balance between state control and individual freedoms in different political regimes. Criteria for comparison included the level of state intervention, mechanisms for combating disinformation, digital platform governance, and the effectiveness of ideological strategies across countries. This identifies similarities and differences between approaches across countries and political systems.

To investigate the evolution of these phenomena over time, a historical-logical method was employed to trace the development of ideas from 2015 to 2025, highlighting key events and trends that influenced the use of technology for ideological purposes and the transformation of political strategies.

Potential limitations and biases of the secondary data were considered. These include the reliance on publicly available documents and studies, which may reflect the perspectives or agendas of the original authors, the varying quality of data across countries, and the possible underrepresentation of certain political or social contexts. Awareness of these limitations guided careful interpretation of results and comparison across cases.

Findings are analyzed from the standpoint of systemic and comparative approaches, to identify the key trends and challenges in the use of information technologies to achieve ideological goals. Special attention was paid to the influence of technological changes on political processes and governance.

Impact of Information Technologies on The Internal and External Policy of The State

The development of information technologies has radically changed the way states approach internal and external policy. Digital platforms, social networks, big data, and artificial intelligence

technologies have become not only means of communication, but also powerful tools for managing public opinion, spreading ideologies, and projecting political influence. Presently, IT is an integral element of modern geopolitics, influencing the strategic behavior of states both domestically and internationally.

In internal politics, information technologies are used to shape civic identity, strengthen patriotism, and control the information space. In authoritarian and semi-authoritarian regimes, such as in Kazakhstan and China, digital technologies are actively used to monitor the population, restrict access to alternative sources of information, and promote official ideology. Kazakhstan, as part of its Digital Kazakhstan program, is developing e-governance and cyber security infrastructure, while strengthening control over the online space – blocking undesirable resources, regulating social media, and combating “disruptive” content. This is part of a broader strategy to strengthen national sovereignty and stability (Hyzen, 2021).

China demonstrates the most advanced model of integrating IT into ideological and political control. Here, digital technologies are being used to create a large-scale social ranking system, digital surveillance, monitoring online speech, and promoting the “Chinese dream” narrative, which represents the vision of national rejuvenation, prosperity, and the collective well-being of Chinese society. Externally, China is also actively leveraging IT tools for soft power – through global platforms such as TikTok, Chinese media holdings, and cyber diplomacy.

In Western countries, especially in the US and Europe, the approach to the use of IT is characterized by a greater emphasis on freedom of speech and human rights (Fekolli & Cela, 2024). However, even here digital technologies are actively used to promote ideological values such as democracy, gender equality, and minority rights. The US uses IT within the framework of the concept of “information superiority”, as well as in cyber operations abroad. American digital giants (Meta, Google, X) play a key role in shaping the global information field, often promoting certain values and political orientations. Therewith, on the international stage, the US faces accusations of digital interference in the affairs of other states – especially against the backdrop of USAGM and government-funded platforms.

In the European Union, digital technologies are viewed as a tool for public diplomacy and strengthening social and political cohesion. The EU is actively combating disinformation, including through platforms like the East StratCom Task Force, aimed at countering external influences. At the same time, Europe is seeking to develop its own digital sovereignty through legislative initiatives – e.g., DSA (2022) and DMA (2022).

A summarized analysis of the impact of information technologies on internal and external policy in Kazakhstan, Europe, the US, and China is presented in comparative Table 1.

Table 1. Comparative characteristics of the use of information technologies in domestic and foreign policy: The experience of Kazakhstan, European countries, the USA, and China

Country	Use of IT in internal policy	Use of IT in external policy	Specific features
Kazakhstan	Electronic government (e-Gov); monitoring the internet and social media; supporting national identity through digital channels	Partnership with China in cyber security; deterring external information threats	Focus on digital modernisation while maintaining political control
China	Censorship, social media control; social rating system; total surveillance using IT	Dissemination of narratives via TikTok, CGTN; export of Chinese technology; cyberdiplomacy	Digital authoritarianism with global ambitions
USA	Big Tech's influence on politics; attempts to regulate misinformation; defence of free speech.	Global digital presence; promotion of democratic values; cyber operations and information strategy	Leading in the digital space, but regulatory challenges are present
Germany	NetzDG to combat hatespeech and fake news; support for digital literacy	Counter-propaganda and digital diplomacy; EU cooperation on countering disinformation	Focused on the regulation and protection of human rights
France	Law Against Information Manipulation; digital campaigns against extremism	Active participation in EU cyber security; strengthening information sovereignty	Combines control with the promotion of the values of freedom
Poland	Countering misinformation; strengthening national digital infrastructure	Active cyber cooperation with the North Atlantic Treaty Organisation and the EU; information support to Ukraine	Focus on cyber defence and national ideological resilience

Source: compiled by the authors of this study based on data from Fornasier and Borges (2022); Urman and Makhortykh (2025).

Thus, international practices demonstrate a wide range of strategies depending on the political system, technological level, and foreign policy ambitions of states. Regardless of the governance model, information technologies have become an integral part of both internal politics

(in terms of ideological control, public opinion management) and external policy mechanisms of influence and confrontation in the conditions of digital globalization.

Social Media, Historical Memory, and Electoral Technologies

In the conditions of digital transformation of modern society, social networks have taken a key place in the information ecosystem, considerably influencing the processes of shaping historical memory and political choice. The integration of digital technologies into the sphere of public policy has generated new forms of communication between the state, society, and transnational actors. The use of algorithmically controlled content, micro-targeting, and instant dissemination of information makes social media a unique tool for both democratic participation and ideological manipulation (Oklander et al., 2017). This section aims at a comparative analysis of the practices of using social networks in the shaping of historical narrative and electoral strategies using the examples of Kazakhstan, European countries, the USA, and China.

Kazakhstan's practice demonstrates a transitional model of digital ideology, combining modernization initiatives and elements of digital control (Hyzen, 2021; Bryczek-Wróbel & Moszczyński, 2022). In the context of historical memory, the government actively promotes postcolonial narratives aimed at rethinking the Soviet past, shaping the image of the nation and glorifying independence. For this, both official accounts of government agencies and pro-government bloggers are used in social networks. Elections in Kazakhstan are accompanied by an increased use of digital platforms for campaigning: creative content on Instagram, TikTok, and Telegram is used to mobilize young people, broadcast candidates' programs and discredit opponents. However, there is a parallel restriction of digital freedoms: temporary blocking of access to platforms, filtering political content, and cyberattacks on independent media. Thus, social media in Kazakhstan are becoming an arena of competition between state discourse and growing civic activism (Bryczek-Wróbel and Moszczyński, 2022; Mukayev et al., 2022).

American practice vividly illustrates the impact of social media on electoral dynamics. The use of Big Data and content personalization algorithms has enabled political campaigns to create highly effective targeting strategies (Shahini & Shahini, 2025). A well-known case study was the 2016 presidential election, when social media became a field of large-scale information operations involving external players, including the use of fake accounts, bots, and troll farms (Urman & Makhortykh, 2025; Fornasier & Borges, 2022; Zhang et al., 2025). These tactics amplified misleading or polarizing content, shaped voter perceptions of candidates, reinforced partisan identities, and, in some cases, suppressed engagement among targeted groups, directly influencing voter behavior and electoral outcomes.

Historical memory in the US has also undergone a digital transformation. Virtual debates on racial discrimination, slavery, and Confederate symbols take place in the public space of social

networks, where the narratives of democratic movements (Black Lives Matter, Stop Asian Hate, etc.) form an alternative picture of the past (Bryczek-Wróbel & Moszczyński, 2022; Monsees, 2023). These processes influence public opinion, increase social polarization, and find direct expression in electoral behavior.

The Chinese model represents the most centralized and controlled form of digital memory politics. All major platforms – WeChat, Weibo, Douyin – operate within the confines of tightly controlled and state-sponsored censorship. State organs disseminate the only acceptable narrative about the role of the Communist Party, resistance to Western influence, and China’s historical mission.

Historical memory is shaped as a tool of political loyalty: glorifying Party figures, suppressing alternative interpretations (such as the events in Tiananmen Square) and popularizing the “common destiny of the Chinese nation”. Although there are no formal competitive elections in China, social media are used for symbolic citizen participation – supporting party initiatives, expressing ‘opinions’ allowed within censorship limits, and monitoring the loyalty of regional administrations.

In European countries (e.g., Germany, France, Poland, Sweden) there is a pluralistic approach to digital memory and electoral processes. Social media is a space for open debate, but also become a target for disinformation campaigns, including foreign ones. The EU has responded with initiatives to regulate platforms: e.g., the NetzDG law in Germany or the provisions of the Digital Services Act at EU level.

Historical memory in Europe is actively debated on social media: Germany on the Nazi past and the Holocaust, France on colonialism, Poland on its role in the events of the Second World War. In these countries, public memory policies are confronted with alternative narratives ranging from academic to marginalized. In the context of elections, platforms are used both for political campaigning and to protect voters from manipulative content: factchecking, monitoring mechanisms, and educational campaigns are active (Monsees, 2023; Oleksy-Gebczyk, 2024).

To illustrate and systematize approaches in different countries, Table 2 presents a comparative analysis of the impact of social media on historical memory and electoral technologies in Kazakhstan, some European countries, the USA, and China. Special attention was paid to concrete cases demonstrating both positive and problematic aspects of digital political communication.

Table 2. Comparative characterization of the influence of social networks on historical memory and electoral processes: Cases and approaches

Country	Historical memory (examples)	Use in electoral technologies (cases)	Specifics of regulation
Kazakhstan	<ul style="list-style-type: none"> • Rethinking the Soviet heritage; • The “Jaña Qazaqstan” campaign; • Heroisation of national figures through TikTok and Telegram. 	<ul style="list-style-type: none"> • Use of TikTok and YouTube in the 2023 election campaign; • Participation of pro-government influencers. 	<ul style="list-style-type: none"> • Temporary blocking of Telegram and Facebook during protests; • Control of opposition content.
USA	<ul style="list-style-type: none"> • Black Lives Matter movement; • Digital deconstruction of Confederate symbols; • Online debate on slavery and segregation. 	<ul style="list-style-type: none"> • Facebook and Cambridge Analytica data leaks in 2016; • Active use of Facebook and X (Twitter) for microtargeting. 	<ul style="list-style-type: none"> • Limited regulation; • Congressional hearings on Russian Federation interference and disinformation.
China	<ul style="list-style-type: none"> • Propaganda of a unified historical narrative through WeChat and Weibo; • Blocking mentions of the Tiananmen Square events; • Movement for a Common Destiny. 	<ul style="list-style-type: none"> • Absence of elections in the Western sense; • Douyin (analogue of TikTok) is used for party propaganda and loyalty control. 	<ul style="list-style-type: none"> • Total censorship: the “Great Firewall of China”, banning YouTube, Twitter, and other Western platforms.
Germany	<ul style="list-style-type: none"> • Holocaust remembrance, denazification in the digital space; • Museum initiatives on Instagram; • Discussing the Nazi past in TikTok. 	<ul style="list-style-type: none"> • Party activity on Facebook; • Counter-campaigns against misinformation (e.g., on the topic of migration). 	<ul style="list-style-type: none"> • NetzDG law (removal of banned content within 24 hours); • Fines for fakes.

Source: compiled by the authors of this study based on data from Dowse and Bachmann (2022).

Comparative analyses show that social networks have become a transforming factor of political culture and historical identity on a global scale. In democratic systems, they play an ambivalent role – both as a mechanism for widening participation and as a tool of manipulation. In authoritarian regimes, they become a channel for ideological mobilization and control. Kazakhstan demonstrates a model of hybrid use of digital platforms, combining elements of modernization and restriction (Zhandossova et al., 2017). The US illustrates the consequences of digital polarization, China illustrates the effectiveness of a managed digital environment, and Europe illustrates the ways of democratic regulation of new challenges.

Thus, social media has not only changed the methods of political mobilization but are also re-designing collective memory and identity. This calls for rethinking conventional models of political communication and developing sustainable information security strategies, especially in the context of transnational digital influence.

War of Fakes in the Information Space

The modern information space has undergone dramatic changes with the development of digital technologies and the mass spread of social media. These changes have led to the emergence of new threats, among which the spread of fake news and disinformation is one of the most significant. Fake news is distorted or false information specifically created to manipulate public opinion, destabilize the political situation or influence social processes.

International experience shows that fakes are used as a tool of political struggle and as a weapon in information wars, which requires the development of strategies and mechanisms to protect against this phenomenon. Fakes can be disseminated through various channels, including social media, messengers, and news sites (Barlybayev et al., 2024). Social platforms play a key role in spreading false information. This happens through algorithms that facilitate the rapid dissemination of content to users.

In the context of information warfare and the fight against fakes, Kazakhstan stands as an example of a country with a hybrid political system that combines authoritarian methods of governance with attempts to introduce elements of democratic governance (Smailov et al., 2025). This creates a duality in approaches to regulating the digital space, fighting fakes and disinformation: on the one hand, the need to protect society from external information influences, on the other hand, the use of the topic of disinformation as a tool to control opposition discourse and civil society.

The majority of Kazakhstan's population consumes news from the Russian-language media space, which increases vulnerability to external disinformation, especially in the context of conflicts in the post-Soviet space (e.g., during the war in Ukraine). In this context, the spread of fake news, particularly through Telegram channels, YouTube, and Facebook, has become a

challenge not only for internal stability but also for the country's foreign policy positioning (Ludwig et al., 2025).

Since 2020, Kazakhstan has intensified the implementation of legislative changes aimed at strengthening control over information on the Internet. Specifically, amendments were adopted to the Law of the Republic of Kazakhstan No. 567 "On Communications" (2004) and the Law of the Republic of Kazakhstan No. 93-VIII "On Mass Media" (2024), which require foreign platforms to register in the country and have official representation.

In 2021, the National Information Space Monitoring System was established to automatically identify fake messages and content deemed to be a 'threat to public stability'. State fact-checking projects that perform both an educational and reputational function are also being actively developed. However, these mechanisms are often criticized for selective application. Despite the dominance of the political-security paradigm in information policy, Kazakhstan is also investing in the development of digital literacy (Amandykova & Kalmaganbetova, 2016; Syzdykov et al., 2016).

Kazakhstan's model of combating fakes is an example of an attempt to balance information security and freedom of expression. In the context of exposure to external sources of disinformation, weak democratic institutions and elevated levels of censorship, measures against fakes often become forms of control over the opposition and public activists. However, the presence of elements of international cooperation and educational initiatives indicates the potential for a more measured and transparent approach in the future (Krasznay et al., 2024).

The US is a prime example of how fake news can markedly affect political stability and electoral processes. A key example of the use of fake news to influence electoral processes in the US was the 2016 presidential election. According to various experts, thousands of fake Facebook and Twitter accounts actively influenced public opinion by spreading content aimed at increasing political polarization in the country. This case demonstrated how fakes can become a tool to manipulate election results, which emphasized the importance of raising citizens' awareness of possible manipulation through digital platforms. The issue of fighting misinformation has become one of the most critical issues on the U.S. policy agenda. Government and technology companies have begun to pay more attention to the influence that social media has on political processes. The Federal Communications Commission and other government agencies have proposed new initiatives to increase transparency in political advertising and combat fake news. One crucial step has been the introduction of standards for political advertising on digital platforms. Platforms such as Facebook and Google have been forced to implement new rules that mandate the publication of information about who pays for political advertising, which has helped to increase transparency in election campaigns (Fornasier and Borges, 2022).

The US has developed a series of mechanisms and policies to combat fake news and disinformation. One major step was the enactment of laws regulating digital platforms, such as the Election Advertising Transparency Act of 2018, which requires social media to adhere to certain standards in the management of political advertising. Furthermore, the US government is actively working with technology companies to develop mechanisms to combat fake news. For example, Twitter and Facebook have begun to more actively identify and block fake accounts that are used to spread misinformation (Barlybayev & Turginbayeva, 2025). Education is also a significant aspect of the fight against fake news. Governments and public organizations are promoting digital literacy among citizens, learning how to recognize fake news and manipulation in media space.

Despite efforts to combat misinformation, the problem of fake news in the U.S. continues to be a pressing issue. One of the principal challenges is the political polarization in the country, which contributes to greater vulnerability of citizens to manipulation through social media (Othmeni, 2024). With significant political divisions, diverse groups actively use fake news to bolster their positions, which only complicates the combating of misinformation. Research shows that voters often tend to believe information that confirms their existing beliefs, even if the information is false. This jeopardizes democratic processes and requires the continuous development of strategies to combat fake news, considering not only technological solutions but also social and psychological aspects (Bryczek-Wróbel and Moszczyński, 2022).

In the European Union, the problem of fake news has become particularly relevant since the early 2010s, when the spread of social media facilitated the emergence of new forms of disinformation. This phenomenon has manifested itself not only in the distortion of facts, but also in the creation of targeted information campaigns to influence public opinion, especially in the context of significant political events. Specifically, interference in the results of elections and referendums has become one of the greatest problems, which calls into question the effectiveness of democratic procedures (Karasheva et al., 2024).

The European Union is actively working on developing legislative and policy initiatives to combat fake news. In 2018, the EU published the Audiovisual Media Services Directive, which includes measures to combat disinformation. Under this initiative, social media and internet platforms are obliged to take measures to prevent the spread of fake news and online manipulation (Romaniuk & Yavorska, 2022). Specifically, social platforms are obliged to provide transparency of algorithms and control advertising campaigns that could be used for manipulation. The EU also established an Expert Group on Combating Disinformation, which aims to provide recommendations to public authorities on best practices and policies to combat fake news.

Germany was one of the first EU countries to adopt legislation to combat disinformation. The NetzDG Act (2017) requires social media companies such as Facebook and Twitter to take measures to remove hate speech and fake news within 24 hours of detection. France has also passed

a bill aimed at combating fake news. The Law Against Information Manipulation was passed in 2018, which allows French courts to require social media platforms to remove fake news that could influence elections. The law also sets transparency requirements for political campaign finance and advertising. In a crucial step, the EU created the EDMO platform, which brings together academics, media, and technology companies to study and combat fake news and disinformation. EDMO is working with all member states to establish national centers that analyze and monitor digital media.

China is one of the most authoritarian countries, where state control over information flows in the Internet space has reached an extremely high level. The Chinese government uses digital technologies and social media not only to regulate the information space, but also actively manipulates it to support the existing political power and strengthen social stability. In the context of fake news and disinformation, China occupies a unique position because, unlike in Western democracies where fakes are often used for political manipulation or to support the opposition, in China disinformation is used to retain power and promote official policies.

One of the most telling strategies is the use of fake news to support official political narratives and discredit opposition forces. China actively disseminates false information or manipulates facts to maintain the political positions of the Communist Party, particularly on issues of human rights, political protests, and foreign policy. One of the most high-profile examples of China's use of fake news is an information campaign aimed at discrediting the Uighur people and other ethnic minorities in Xinjiang. The Chinese government has actively used social media to disseminate false or distorted information that substantiates the massive repression carried out by the Chinese authorities. Fake news created or disseminated by state agencies emphasize the 'nobility' of government actions to "fight terrorism" and "restore order" in the region (Zhang et al., 2025).

During the COVID-19 pandemic, China became one of the key creators and disseminators of fake news that justified its strict quarantine measures and critical strategies. For example, Chinese media and official channels actively disseminated reports that China was successfully handling the pandemic due to its leadership and effective measures, unlike other countries. This included creating false reports on the number of COVID-19 cases and attempts to reduce criticism about the initial response to the virus outbreak. Many of these news reports were based on false data or were distorted to support political stability.

Table 3. Sources of fake news and public policies to counter disinformation in different countries

Country/region	Key sources of fakes	State policy of counteraction
Kazakhstan	<ul style="list-style-type: none"> • Opposition Telegram channels; • Pro-Russian media; • Anonymous accounts on Facebook, Instagram; • Spreading rumours during protests. 	<ul style="list-style-type: none"> • Article 274 of the Criminal Code of the Republic of Kazakhstan; • Monitoring of social networks by government agencies; • Launching government Telegram channels to refute fakes; • Initial educational programmes on media literacy.
USA	<ul style="list-style-type: none"> • Foreign intervention; • Radical media (Breitbart, InfoWars); • Movements like QAnon; • Anonymous Twitter/Reddit accounts. 	<ul style="list-style-type: none"> • Legislative initiatives (Honest Ads Act, Digital Millennium Copyright Act); • FBI and DHS cybersecurity activity; • Pressure on technology platforms to label fakes; • Digital security programmes during the election period.
China	<ul style="list-style-type: none"> • Dissident channels (from emigration); • Foreign media (BBC, DW – considered “hostile”); • Massive state generation of fakes through the “50 cent army”. 	<ul style="list-style-type: none"> • Internet censorship (Great Firewall); • Social media control (Weibo, WeChat); • Proprietary platforms to combat misinformation; • Propaganda through fake accounts promoting the official line.
EU (Germany, France, Poland)	<ul style="list-style-type: none"> • Political radical forces; • Clickbait media; • Misinformation about vaccines, war, refugees. 	<ul style="list-style-type: none"> • Digital Services Act; • NetzDG in Germany; • European platform EUvsDisinfo; • Media literacy campaigns; • Support for independent fact-checking platforms (Correctiv, AFP FactCheck).

Source: Compiled by the authors of this study based on data from Priyanto and Azzahra (2025).

China has also been a leader in using technology to combat fake news, albeit for different purposes than in democracies. The Cyberspace Administration of China oversees the activities of all major digital platforms. Legislation in China requires these platforms to adhere to strict regulations regarding publications that may qualify as ‘unnecessary’ or ‘harmful’ to national security and stability. For example, China has initiated a policy of strict content regulation through internet censorship, which requires platforms to control information that could be perceived as ‘harmful’ or ‘subversive’. Platforms are also required to give the government access to user data and all published information. China has also actively countered international criticism of its information policies. When international organizations such as the United Nations raise human rights concerns, the Chinese government responds with information campaigns that attempt to discredit opponents or present an opposite image of reality. China uses its digital diplomacy to spread fake news through international media platforms and organizations to justify the government’s domestic policies on the world stage (Song, 2023).

The summarized comparative Table 3 demonstrates the key sources of fake news in four geopolitical contexts – Kazakhstan, the United States, China, and the European Union – as well as the approaches of national governments to counter the spread of disinformation. This analysis not only reveals the specifics of information strategies of different countries but also allows understanding the effectiveness of certain forms of regulation of the digital space.

The war of fakes in the information space is a global threat that affects all countries and regions, regardless of the political context and the level of digital technology development. Kazakhstan, the United States, China, and European countries demonstrate different approaches to regulating the information space and fighting disinformation, which is conditioned by political, social, and cultural differences. However, in all these countries fake news continues to influence public opinion, political processes, and democratic institutions. To effectively combat fake news, comprehensive approaches are needed, including both legislative initiatives and the development of international cooperation in the field of information security and media literacy.

Discussion

The analysis of international studies confirmed that the role of information technologies in the implementation of ideological strategies varies significantly depending on the political and cultural context of countries, which is consistent with the findings of Humprecht et al. (2022). In a comparative analysis of 30 countries, the researchers found that the effectiveness of the digital media environment in broadcasting ideological messages depends on the level of media pluralism and regulatory mechanisms. This study also recorded those countries with high levels of digital freedom, such as the US and EU countries, have an intensive use of online platforms for both educational and manipulative purposes, while countries with authoritarian elements, such as China

and Kazakhstan, are dominated by the centralized distribution of ideologically charged content through state channels and controlled platforms.

Reisach (2021) highlighted the responsibility of social media in the context of political manipulation, which is supported by current data: over 60% of respondents indicated that they had encountered biased or ideologically charged content on social media. Weismueller et al. (2022) also focused on the role of emotional coloring and source credibility in the dissemination of political content – the current study found that anger or anxiety provoking content showed the greatest level of dissemination, especially in times of political crises.

Hua (2022) made valuable conclusions regarding educational practices, investigating the integration of IT in the ideological education of students. Data from this study from China and Kazakhstan also confirmed that the digitalization of the educational environment enhances the role of ideology in universities, especially through e-learning platforms and automated assessment systems that shape students' sustainable political-cultural attitudes. Ma et al. (2023) showed analogous results, noting the effectiveness of incorporating digital technologies into Chinese educational programs with an ideological component. However, the present study showed that in countries with less digital maturity, such as Kazakhstan, such initiatives often stay formal and less effective.

Indicative was the contribution of León and Rosen (2021), who viewed technology as a form of ideological control in urban governance. The current analysis of cases from China and Kazakhstan revealed analogous trends: digital platforms are used not only for administration, but also as a tool to strengthen political loyalty through the dissemination of official discourse.

Consideration of digital empires in the context of technology regulation in the book by A. Bradford (2023) provided useful guidelines for analyzing global information technology policy. The researcher emphasized the value of international regulation that could guarantee protection against manipulation through digital platforms. The present study, using the US and EU as a case study, also confirmed that countries with advanced digital systems regulate media use, but the differences in approach between the EU and the US regarding privacy protection and combating fake news continue to be significant. For example, the EU has stricter measures against disinformation, which is in line with the analysis of A. Bradford.

Sartori and Theodorou (2022) considered the use of AI to manage political and ideological processes. The present study also noted the growing application of AI in the political sphere, especially in automated big data systems, which enabled the analysis of citizens' ideological preferences and adaptation of information flows. For example, China is actively using algorithms to analyze public opinion and build political loyalty among students and citizens.

In countries such as China and Kazakhstan, it was found that ideological education actively integrates digital technologies into the process of educating politically oriented cadres. Rong and

Gang (2021) focused on the application of artificial intelligence technologies to assess students' political and ideological strategies, which echoes the findings of the present study on the significance of data analysis in shaping and maintaining ideological positions in educational institutions. Specifically, it is confirmed that the use of data collected through distance learning platforms helps in the construction of ideological models aimed at increasing control over students' thoughts and behaviors.

Garnham (2020) in his study on the theory of information society as ideology raised issues related to the formation and dissemination of ideological messages through information technology. This is comparable to the findings of the present study, which found that many states utilize digital technologies to create and reinforce dominant ideologies, particularly through online platforms and social media.

Thus, the generalized findings of the present study correlate with the international academic convention, demonstrating that technology is both a tool and an arena for the struggle for ideological influence. At the same time, regional differences in the strategies and effectiveness of using IT for ideological purposes were revealed, which highlighted the need to adapt international approaches to local conditions.

Conclusion

Information technologies have become a key tool in shaping and disseminating ideological narratives, managing public opinion, and transforming political loyalties. They are actively used in both democratic and authoritarian states. Internal political control in countries with authoritarian features, such as China and Kazakhstan, is exercised through monitoring digital space, blocking oppositional content, controlling social media, and disseminating state fakes. These states use both strict censorship and their own digital platforms to promote official positions, including through fake accounts and propaganda networks.

At the same time, countries such as the US use technology to target the electorate, especially in the context of election campaigns. Social media, big data, and algorithmic platforms enable the construction of personalized ideological messages, which increases the degree of influence on citizens' political behavior. In the European Union countries (Germany, France, Poland) there is an active state and supranational policy to counter disinformation. Work is underway to regulate digital services, promote media literacy and support independent fact-checking platforms, which indicates an institutionalized approach to combating fake news. Overall, fake news has become a serious threat in the global information space, especially given its widespread use for ideological manipulation in the US, China, Kazakhstan, and EU countries.

One of the limitations of the present study was that the comparative analysis covered only a limited number of countries – China, the USA, Kazakhstan, and some European Union states

(Germany, France, Poland), which does not allow fully reflecting the diversity of international experience in the use of information technology to achieve ideological goals. Recommendations for further development include strengthening international regulation of the use of digital technologies to protect privacy and combat disinformation, as well as expanding the use of innovative approaches in education to effectively shape ideological and political orientations. For further research, it is advisable to focus on investigating the effectiveness of technology use in managing ideological processes and on studying the impact of the latest technologies on the shaping of political loyalty among different social groups. It is also advisable to explore the impact of artificial intelligence algorithms on the management of ideological processes, since such technologies are already actively employed to analyze public opinion and form political guidelines.

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Acknowledgements: None

Disclosure Statement: The authors declare that there is no conflict of interests.

Funding: This study was carried out with the financial support of the Science Committee of the Ministry of Science and Higher Education of the Republic of Kazakhstan (IRN BR24993082 “Comprehensive Study of Humanitarian Aspects of Information Security of Kazakhstan and Components of “Soft Power” in Ensuring Sustainable Development and Consolidation of Kazakhstani Society”).

Data Availability Statement:

The authors confirm that the data supporting the findings of this study are available in the article.

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JOURNAL OF WORLD-SYSTEMS RESEARCH

ISSN: 1076-156X | Vol. 32 Issue 1 | DOI 10.5195/jwsr.2026.1432: | jwsr.pitt.edu

Review Symposium:

Claire Decoteau's *Emergency: COVID-19 and the Uneven Valuation of Life*

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Abstract

*This symposium is based upon comments from a 2025 author meets critics discussion at the Eastern Sociological Society Conference. Between August 2020 and May 2021 Dr. Decoteau worked with four graduate students: Cal Garrett, Fructoso Basaldua, Cindy Brito and Bianca Perez to recruit interviewees from across the city of Chicago at a time when COVID-19 made any sort of qualitative analysis incredibly challenging. Interviewing Chicagoans living under increased public health focus because of COVID-19, those subjectified and hailed as Essential Workers as well as policy makers and health professionals, *Emergency* captures the struggles of communities living under the weight of legacies of racism, structural neglect and oppression and the limits of addressing systemic harms through the lens of emergency response.*



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Robin Wagner-Pacifi:

I am honored to be a participant in this Journal of World Systems Research book symposium discussing Claire Decoteau's excellent book, *Emergency: Covid 19 and the Uneven Valuation of Life*. Indeed, it is an excellent book – empirically rich and theoretically sophisticated. It's also a hard book to read – for the complexity of its arguments (though a close and careful reading is highly rewarded), but mostly for the long-and-short term tragedies it lays bare. One city (Chicago), one pandemic (Covid-19), one national social and cultural context (the United States) on which history weighs heavily and often. And as our political history has moved onward both with and from the pandemic, we are now also confronted with an equally intensified vision of the city of Chicago under the deportation and militarized “emergency” frames of the Trump administration. All the prior vicissitudes of the undocumented “essential” pandemic workers are exacerbated by their sudden refiguring now as not only non-essential but actually intolerable.

Part of the very project of Decoteau's book is the articulation and management of multiple “events” (like pandemics and military occupations) through the analytical strategies of making both connections and distinctions. Decoteau argues that COVID-19 was actually a convergence of three emergencies (each with different symbolic and material emphases, types of media of formation, and temporalities): a combined short and long term state of emergency protecting white supremacy and wealth; the slow emergencies of deindustrialization and minimal (to absent) social safety net infrastructure confronting minority populations; and the sacrifice “essential workers” were asked (make that required) to make in order to protect the US economy over the course of the pandemic. And the analytical challenge of tracking these three emergencies in the context of the city of Chicago is superbly met as the book forthrightly takes it on with all of its contradictions: “This book seeks to explain why a local commitment to racial equity and unprecedented expansion of federal welfare failed to protect Chicago's most vulnerable from a series of converging “demics.” (p.2)

To this end, the book highlights fundamental distinctions of the period being analyzed. It lays out some fundamental contradictions and oppositions conceptually relevant to contemporary U.S social and political structures and policies: fast and slow; essential and unnecessary (though the opposite of essential is hard to pin down – inessential, marginal, accidental, contingent): acute and chronic; local and national; ordinary and spectacular; letting die and making die. And the book raises important questions about how to acknowledge and understand the linkages between these binaries and their inter-dependencies on each other. For example, Decoteau asks: “How do we make theoretical sense of both ordinary and spectacular state violence, and the link between letting die and making die?” (p. 52) In fact, one of the great accomplishments of the book is to force the reader to consider what and when something is “spectacular.”

In posing these various alternating perspectives on the pandemic, the book makes a significant contribution to the sociologies of time and space. One major theme is parsing the meanings and modalities of fast emergencies and slow emergencies – and their intersections. Decoteau demonstrates that while it is indeed very difficult to specify and track multiple, simultaneous, emergencies operating along different temporalities and through different spaces – it is possible to do so. The book does this with its own dramatic urgency and effect. One way it manages this is to “follow the money” (money being a prime medium through which events take shape, a medium perhaps not sufficiently recognized as such). We read of fast emergency funds flowing out to communities, but not flowing into slow emergency channels (for example into providing housing and education). And sometimes not necessarily even flowing into fast emergency channels either, but rather into non-emergency or what I might call anti-emergency arenas: “In February 2021 it emerged that Mayor Lightfoot spent 60 percent of the city’s discretionary funding from the Coronavirus Aid, Relief, and Economic Security (CARES Act) totaling \$281.5 million on police personnel.” (p. 47) And “The city of Chicago used ARPA funds as an opportunity to pay down debts instead of funding direct services and expanding the social safety net.” (p. 96) These practical decisions by a local government in theory focused on overcoming racial and economic inequities are striking and demonstrate a sort of crisis fungibility when discretion is provided.

I would like to pose a few questions for the study - not so much of criticism as curiosity. The concept of exclusionary inclusion is central in the book, but I think it needs more elaboration. How are the people exposed and sacrificed to the pandemic and its short and long term force fields really included, other than with fake and toxic rhetoric about being essential? The book illustrates convincingly how it’s not the people who are essential it’s the services they provide. This is a contradiction at the heart of the inequities of the event and the attempts at its management. Decoteau captures something essential about essential workers: “certain populations are deemed both essential and replenishable. Workers’ social reproduction is withheld or threatened to the point of exhaustion, until others take their place in a system of renewable exploitation.” (p. 8) To view people as essentially replenishable, replaceable denies their singularity, an element often connected to that which is essential. Here it’s worth thinking about the singularity of people and singularity of the event – and it’s interesting and productive to think about how to get singularity into focus at the micro and macro levels, and at both the levels of theory and the levels of practice and policy. Decoteau’s careful and thorough methodological choice to carry out interviews with over a hundred Chicago residents along with 65 public health experts, service providers, and government officials is especially sound in the context of this very theoretically sophisticated study. But the (practical and theoretical) relationships between individual and event singularity itself is a worthy topic for analysis.

Another reference about which I'd like to hear more is what Decoteau terms "the nation's norm." Decoteau writes: "Laborers (many of whom were unable to access safety nets because they were undocumented or from mixed-status households) were forced to expose themselves to a deadly virus to protect the nation's norm." (p. 3) I'm not sure what norm means here, though I suspect the Foucauldian idiom is being invoked as Foucault is a theoretical touchstone for the book. Maybe it's linked to what Decoteau calls "the experience of normality": "the ability of the white middle-class majority to experience normality (that is only intermittently and sparingly disrupted by crisis) relies on the constancy with which racial others experience converging emergencies and accumulated vulnerability." (p. 7) The specification of the nation is particularly intriguing now that the idealization of white supremacy nationalism is actively embraced by the Trump administration. But I would be interested to hear more.

Let me conclude by expressing my admiration for this important book. It makes several genuinely original contributions to the studies of historical events, to that of the sociologies of time and space, and to that of social inequality. It holds up several apparently commonplace concepts (e.g. "essential," "emergency," "inclusion") for scrutiny as they are deployed in real time and exposes their tendential and consequential political assumptions. I congratulate Claire Decoteau for this intellectual accomplishment. If you would allow me to say – it's essential reading.

Gowri Vijayakumar:

When I taught my course on HIV in the fall of 2021, enrollment was higher than ever. Students had previously seen the study of AIDS as a kind of haunting (Decoteau 2008), in a kind of temporal displacement I would often spend the semester laboring to correct (Cheng et al. 2020). Now they saw the intricacies of racialized health disparities, prevention measures, pharmaceutical pricing, and disease activism as fiercely urgent. The class became a raw and intense space for understanding the unfolding pandemic around us. Students shared personal experiences, cried, shared music, asked questions, thanked me for the course, told their friends.

Then in the fall of 2023, I offered the course again. Only a few students signed up. I asked my colleagues for advice. One colleague told me that, when the students in Brandeis's Health, Society, and Social Policy Major were polled about their course preferences, they had put pandemics and COVID-19 at the very bottom of their list. "No one wants to think about the pandemic anymore," she said. In just two years, my course had experienced the ebb and flow of crisis temporalities, the dance between intense attention and deliberate forgetting that had defined my own research interests in the study of HIV (Vijayakumar 2021).

Emergency ends with a poignant reflection on the politics of forgetting. Who can afford to forget a pandemic? What parts of the story are most likely to be forgotten? My students clearly seemed eager to forget. But in a way, the entire book is an antidote to forgetting. It offers a meticulous and expansive account of the COVID-19 pandemic and the overlapping emergencies (what Shantal, at the beginning, calls multiple "demics") that precede and outlast it.

The book operates on three registers simultaneously. On one, we see the author as a theorist, making sense of the ways city and state government govern through exception, detaching the public health crisis of COVID-19 from the slow emergencies that enable its devastation, and are exacerbated by it. We see how COVID-19 measures deepen the racial stratification of a deeply segregated city. On another, we see the author as a public sociologist, a meticulous documentarian of a crisis unfolding in real time. In some moments, we see this more activist voice emerge more directly, but mostly it simmers under the surface, offering a powerful critique of the compounding ways the city of Chicago abandons its Black and Latinx residents even as it relies on their labor. And finally, we see the author as a compassionate neighbor and fellow city resident. Notably, the book is a collaborative product, produced by a team of researchers for both sociological and policy audiences. Decoteau reflects thoughtfully on the experience of conducting phone interviews in the midst of an unfolding pandemic. The book makes space for the interviewees not only to report on the brutal conditions and contradictions of their lives, but also to theorize themselves on the ways the city unevenly values life and ignores the deep structural underpinnings of pandemic suffering. The interviewees often offer brilliant and insightful critiques that skewer city elites and lay bare the ways the logic of crisis operates to deepen neglect even as it appears to manage it. As Decoteau notes of one of her interviewees at one point, Foucault couldn't have said it better.

The analysis in *Emergency* is disturbing and comprehensive, brutally truthful and deeply felt. Here, I will briefly summarize the book's main arguments, and then offer a few questions. The book argues that the spectacularized response to the COVID-19 virus, one that, in the case of

Chicago, was touted as driven by the concerns of racial equity, obscured the underlying causes of its racialized and classed effects. Using Nixon's (2011) conceptualization of "slow violence," Decoteau argues that the mundane crises of racial capitalism undergird the exceptional crisis of COVID-19. At federal, state, and city levels, state officials responded in temporally bounded ways that presumed that the crisis was temporary and the slower emergencies of racism, poverty and capitalist exploitation were unsolvable (and thus could be left intact.) But paradoxically, by doing so, temporally bounded emergency strategies often failed to reach Black and Latinx residents: 72% of deaths from COVID-19 in Chicago are concentrated in Black communities, and so-called "essential workers" were sacrificed in service of the protection of the "mainstream."

Decoteau builds a formidable theoretical toolkit, drawing on Nixon's (2011) theorization of slow violence, Anderson's (2020) theorization of slow emergency as a technique of liberal rule that makes some lives possible at the expense of others, Marxist theories of labor exploitation and the production of surplus value, Nguyen's (2010; 2009) theorization of government by exception, and maybe most centrally, Agamben (1998), in theorizing exclusionary inclusion as a way racialized others are both excluded from liberal rights but included as producers of value (and sometimes as political pawns in a supposed project of urban racial equity). Many contradictions ensue. On the one hand, some poverty measures improve during the pandemic as the state does extend some limited social protections and stimulus payments; as Candice says, "it took a pandemic to do it...[but] people out here that need this stuff way before the pandemic and still need it after the pandemic!" (p. 11) On the other hand, COVID-19 creates immense precarity, putting Black and Latinx Chicagoans at heightened risk of illness and death; exacerbating economic instability, indebtedness, housing instability, and food insecurity; and putting pressure on family ties. Most painfully, perhaps, Decoteau documents deepening distrust within communities. But the book avoids homogenizing the intents or effects of pandemic management on everyday life. Pushing back against Berlant's (2011) cruel optimism, for example, Decoteau insists that residents do find ways of imagining alternative relationships to work, and building alternative infrastructures of care.

As Decoteau points out, it takes epistemic work to extract a crisis from its underlying context in the way city officials in the book do. As a way of countering this amnesia, the book takes a deeply historical approach in contrast: tracing the histories of suburbanization, neoliberalization, immigration, the gutting of public services, the fragmentation of health care provision, the political structure of the city, the narrowing focus of public health infrastructure, and the hyperexploitation at the neighborhood level to understand why the effects of the pandemic play out as they do. As Ebony says, the COVID-19 pandemic simply "pulled the veil off" these emergencies (p. 72).

Several insights in the book will be widely applicable, not just to scholars of the US or of COVID-19 but to scholars around the world. Chapter 3, "Quantifying Emergencies," shows how the claim to a racially equitable disease response focuses so much energy on quantifying racial disparities that it ends up being reactive and triaging resources rather than proactively building up a robust disease response that protects vulnerable citizens. Here we encounter a somewhat different standard of public health knowledge than we did at the height of HIV—officials know there are

racial disparities and meticulously document them using increasingly advanced techniques, but then use them paradoxically to say that racial disparities are deeply entrenched and unsolvable. Knowledge of racial disparity, rather than producing reparative or redistributive shifts, instead serves as the justification for deferring racial justice in favor of piecemeal solutions. The chapter offers a sobering assessment of the ways social scientific knowledge itself, in an age of proliferating quantitative metrics (Merry 2016), may not alter political commitments to racial justice. The book also shows how the state outsources services to a confusing set of actors that complicate the path to accessing services, particularly for undocumented people surviving and resisting surveillance. Particularly memorable is the book's attention in the last chapter to the concept of distrust, and the ways racially minoritized communities distrust the vaccine. Reminiscent of Farmer's (1990) early work on AIDS conspiracy theories, and Decoteau's own previous work (2013; 2021), the chapter offers a sensitive account of the structural and political roots of distrust. The chapter's conclusion, as in Sweet's (2019) work on gaslighting, is that when people feel that their diagnosis of structural violence is acknowledged, that they are not being gaslit, they are more likely to pursue vaccination.

The book raises several prescient questions about the aftermath of pandemics. One enduring link the book examines is that between the "letting die" of structural neglect and the "making die" of spectacular racialized violence, most significantly the murder of George Floyd. Decoteau's interlocutors see the two as operating hand in hand. How might we see the political response to the two as linked? The protests around George Floyd could be seen as an eruption of anger about COVID-19, and, indeed, the willingness of liberal institutions to rapidly roll back their racial justice initiatives in the face of right-wing backlash since 2020 is perhaps just another feature of crisis logic. Is spectacular violence a necessary precondition of social eruptions and mass political action? How do such moments become "international causes" (Roychowdhury 2013), and how are international causes taken up in longer-term social movement activism? How do activists (and scholars) expose the links between letting die and making die?

Mutual aid is an important element of this kind of grassroots emergency response. In Chapter 4 and again in Chapter 6, Decoteau describes the work of a mutual aid organization that facilitates drug recovery, distributes resources, connects people to the social safety net that does exist, and even enables collective mourning. But in light of critical studies of neoliberalism, how might these grassroots efforts inadvertently absorb and mute the effects of racial capitalism, particularly when we know that these efforts can also be co-opted through neoliberal strategies of outsourcing? In my own research in India, measurement strategies proliferated alongside social movement innovations, increasing the burden of monitoring and evaluation that has become central to data-driven global health management (Vijayakumar 2021; Peck and Theodore 2010). In Decoteau's account, too, activist efforts to make racial inequality visible become absorbed into state efforts to measure (but then deflect) the racial contours of COVID-19.

I began this commentary with the shifting fortunes of the sociological study of AIDS, and now COVID-19. In this context, the book counters the effects of a kind of collective trauma in the deliberate resistance to remembering. Reading the book, itself, recalls the visceral navigations of

risk, touch, breath, and embodied connection that we each experienced, even as the book reminds us of the starkly different, racialized ways those experiences played out. But ultimately, the book speaks beyond the study of pandemics. Now, in a moment when sociology as a field is under attack, everything is claimed to be a crisis and yet all the predeterminants of crisis have been forgotten. Perhaps what is so threatening about sociology is precisely the fact that it counteracts the logic of exception, the impulse to scapegoat or criminalize or even just to capitulate, that it exposes slow violence and links letting die to making die, forcing a reckoning with underlying and enduring patterns of exclusion.

Joseph Harris:

Claire Decoteau's latest book may be not only her best, but also her most important. *Emergency: COVID-19 and the Uneven Valuation of Life* takes readers into the City of Chicago's response to the coronavirus pandemic, using a critical lens influenced by ideas about racial (bio)capitalism and most notably the work of Michel Foucault. Decoteau argues that the city failed its most vulnerable residents even as its mayor declared that equity and inclusion were imperative.

While the "slow" emergencies of poverty and segregation in Chicago impacted the city's residents unequally and had their own human costs, COVID-19 represented an urgent emergency that made racial inequality and underlying racism even more visible. A full 72% of the deaths from COVID, and 52% of the total cases in Chicago, were black, even though less than 30% of the population was black. Interestingly, Chicago's response took place under the leadership of black Democratic Mayor Lori Lightfoot, who was sympathetic to these issues. And although an unprecedented expansion of federal welfare assistance supported the city's response, Decoteau finds that emergency policies failed to reimagine welfare and simply bolstered an already existing patchwork of means-tested systems; sacrificed frontline workers at the altar of the economy; and not only ignored but exacerbated ongoing endemic crises that lower-income and racially marginalized populations were already facing.

Drawing on 65 interviews with people involved in the response and 110 people from diverse groups in three racially marginalized neighborhoods who were either essential workers or people who lost work in the epidemic, Decoteau finds that this failure happened "by delinking the virus response, as an urgent and spectacularized emergency, from the causes of its uneven racial and class impact" (Decoteau 2024: 2). While local officials built an infrastructure to track disparities, the government failed to initiate policies that could have immediately helped the vulnerable that included sick leave and work protections, cash and rental assistance programs, or policies that forced private hospitals to bear more of the burden for caring for Medicaid and uninsured patients.

A great deal of the evidence for Decoteau's arguments rests on pages 95-100 of the book. There she shares that out of the money that Chicago received through federal CARES Act money, \$470 million of it was discretionary, and Lightfoot herself bypassed the city council to determine use of those funds, spending more than \$281 million of it on police personnel expenses and leaving \$68 million unspent, not prioritizing direct services such as food provision and rental assistance. Using \$2 million of its own money, Chicago's Department of Housing created its own emergency rental assistance lottery that gave \$1,000 to 2,000 households of the more than 83,000 that applied. Later in the pandemic, using federal funds, the IDHA disbursed two further much larger tranches of funds for rental assistance for Cook County residents that included flat payments of \$5,000 to a much larger number of people than were reached initially.

A poor city with a history of taking on high interest debt to balance its budget, the city used \$1.32 billion of America Rescue Plan Act money to pay for budget gaps for the fire department and spent more to pay down debts to commercial banks than any other city in America – 69% of its American Rescue Plan Act money. The trade-off was that this money could instead have been

used to provide more funding to direct services, invest in the social safety net, and create hazard pay for essential workers as some other cities did, to give but a few examples.

What is worse, instead of proactively targeting racially and economically marginalized communities, the city under Lightfoot's leadership waited to design policies that targeted marginalized communities until after data were collected. The history Decoteau shares is detailed, and these points both seem damning.

One of the most illuminating parts of the book is its comparative design, which involved in-depth study of the response in three very different communities, one predominantly black, one predominantly Latinx, and one racially and ethnically diverse. By organizing the research design this way, the reader sees both how the pandemic and the response unfolded in three very different communities in the same city. Here, Decoteau masterfully blends descriptive statistics and qualitative accounts, producing an insightful understanding of how events unfolded comparatively.

Three issues came to mind as I read this important book. First, while the Lightfoot administration was the main target of criticism from the author, there were times when government officials more broadly received blame. Here, I wondered if the narrative might have benefited from parsing out in a bit more detail different government actors and their missteps. In a political system dominated by two main political parties, a government with local, state, and federal levels, and different departments and politics in each, what might have been gained from further disaggregating government actors? Would a different story emerge? At a time when institutions of government and the work of civil servants are under unprecedented attack nationally, arguably there is some value to ensuring that terms and labels used are appropriately circumscribed so that faceless bureaucrats don't become the bogeyman – and also giving appropriate credit where credit was due: some policies that weren't discussed much in the book – such as an eviction moratorium that lasted from June 2020 to October 2021 – did help keep people in their homes.

Second, government officials in Chicago faced a tall task, not only due to the reasons the author articulated but because of the comparatively weak financial position of the city. While some passing discussion of Chicago's response in relation to Philadelphia and Seattle on page 96 put the city's weak response in comparative perspective, what was missing in this brief comparison was the fact that these three cities were in starkly different financial situations. As of July 2018 – less than a year and a half before the pandemic – Chicago's bond rating was Ba1, BBB, and BBB- by the three main credit rating agencies. By contrast, Seattle's was AAA by all three, and Philadelphia was A2, A, and A-. This is important because the lower a city's debt rating, the higher the interest rate a city pays on its debt, the fewer resources it has to pay for everything else. And while Chicago's coronavirus needs were definitely urgent, the city's financial picture would have been worse if it didn't direct some of the resources that it did to address some of the issues it faced, like pension obligations (which is a form of care). This underscores the very serious financial constraints officials in Chicago labored under. And cash-strapped Chicago still had many other vital needs as well: in 2024, it was estimated that Chicago Public Schools would need nearly \$1.2 billion to be adequately funded.

Finally, dating back to Marmot's foundational Whitehall studies, sociologists have known that even when one enjoys robust protections such as stable and secure employment, a meaningful wage, and universal healthcare, a social gradient that runs along the lines of class still remains. Given that and the legacies of racism and segregation in the city, even though it's fair to suggest that more might have been done and to call out the Lightfoot administration for prioritizing spending, particularly on police, what was reasonable to have expected in terms of improved outcomes? Greater social protections would certainly have helped, but the literature on the social determinants of health tells us that health disparities still would not have disappeared.

I raise these questions merely to underscore the incredibly difficult challenges government officials faced in responding to this unprecedented pandemic. The larger point I wish to leave the reader with, however, is that Decoteau's book is an impressive one that offers a great deal of food for thought on disease response and its relation to both the short- and long-term. I, for one, eagerly look forward to her

Response by Claire Decoteau:

While *Emergency* describes the entangled crises that converged during the COVID-19 pandemic, I would be remiss if I did not begin my commentary with at least a brief reflection on the conjunctural crises we are currently experiencing under the second Trump administration, and how these relate to the converging emergencies I document in the book. During the early days of his second presidency, Trump used the invocation of emergency to bypass congress, existing legislation, and to avoid court orders. He declared emergency at the border, invoked the Alien Enemies Act of 1798 to facilitate deportation, declared an energy crisis to allow him to bypass environmental protections, and suggested US cities with liberal mayors are war zones, to enable sending in the national guard. He is currently contemplating sending the US military to Minneapolis in response to protests that have erupted after US Immigration and Customs Enforcement (ICE) agents killed two US citizens: Renee Good and Alex Pretti in January 2026. In June 2025, NPR wrote that “Trump has invoked emergency powers more times in his first 100 days than any other modern president.” Trump may, in fact, be reading Carl Schmitt (2005), as he uses emergency declarations to buttress white supremacy and target internal racial “enemies” he believes tarnish his particular vision of a “great” America. He is also using letting die strategies by failing to provide reproductive healthcare, trans affirming care, and cutting educational and welfare funds in his so-called “Big Beautiful Bill.” And in fact, his entire approach to his second presidency is coached in the logic of emergency – America is “in decline” and he is the savior called in to save it. The temporalities of these crises and how they foreground crisis for the privileged (white, middle-class) while naturalizing and exacerbating both slow emergencies and the “making die” of racially marginalized groups demand our theoretical and political attention. The convergence of distinct temporal “emergencies” and the ways in which they fuse together strategies of “letting” and “making” die are main themes of my 2024 book, *Emergency: COVID-19 and the Uneven Valuation of Life*.

I am incredibly honored to have *Emergency* reviewed in the *Journal of World-Systems Research* by three distinguished and discerning scholars, and I greatly appreciate their generous reviews of the book. To begin, I will provide a very brief summary of the book and then respond to each reviewer’s questions and critiques.

City of Chicago officials initiated a “racial equity” approach to mitigate the disproportionate impact of COVID-19 on racially marginalized communities, yet according to interviews with Black and Latinx Chicagoans, this approach failed to address core vulnerabilities associated with health, housing, mental health, welfare, and food. Why? Based on 175 interviews with residents, city officials, epidemiologists, hospital and clinic staff and community stakeholders, I argue that COVID-19 represents and exacerbates the convergence of three sets of emergencies. First, I argue that federal and local governments governed through emergency, enacting temporally bounded governmental strategies that presumed scarcity, triaged care, and naturalized structural inequality by delinking the effects of racism from its causes. This temporary emergency response was spectacular and anticipatory – designed to safeguard the status quo until “normalcy” could be restored. But such an approach exacerbated two longer-term endemic emergencies already taking

place: 2) the slow emergencies racially marginalized populations have faced for decades due to neoliberal restructuring and the fragmentation of care infrastructure, and 3) the sacrifice of lower-income frontline workers to premature death to safeguard the economy and protect the middle-class. The city's "racial equity" project used data to determine which communities would be given scarce resources, but once positivity or death rates declined, resources were retracted and redistributed elsewhere. City officials thus attempted to manage these converging emergencies by manipulating epidemiological data and orchestrating systems for interpreting that data. The book analyzes how and why states that took racial disparities in COVID-19 outcomes seriously, failed to redress existing emergencies among communities marginalized by race and class.

In her comments, Robin Wagner-Pacifici focuses on how Emergency combines theoretical attention to events, temporality, and conceptual and political contradiction. I appreciate her deep engagement with the theoretical crux of the book. She critiques my use of Agamben's theory of "exclusionary inclusion" by challenging me to consider whether people ensconced in slow emergencies are really "included" within the body politic. She points to my discussion of "essential workers," and the ways in which their labor was valued, but their singularity and humanness was denied as they were deemed exhaustively replenishable and fungible. This is certainly a valid critique, and throughout much of my analysis, I illustrate the many ways in which racially marginalized Chicagoans were valued only for their labor or the symbolic capital state actors could claim when they celebrated the achievement of equity in vaccine roll-outs or epidemiological statistics, while ignoring the racial and structural determinants of mortality. While performative "inclusion" to achieve representational capital is certainly part of my analysis, I think it is dangerous to suggest that frontline and immigrant workers, as well as other racially marginalized residents of Chicago, are completely excluded from political processes. Such a move can reify and ontologize racial differences, but it also ignores the political will of marginalized communities, which they exercised in voting Lightfoot out of office when she lost her bid for re-election in 2023. Wagner-Pacifici also questions my use of the term "norm," in referring to the population protected by biopolitical administration. She is correct that this stems from my reliance on Michel Foucault. For Foucault, biopower optimizes the health of the normative population, while condemning to slow or quick death those who live on the margins of the body politic. These are interdependent processes: some peoples' lives are deemed unworthy of being lived so that others' lives can be protected (Foucault 2003). Foucault did not always attend to the structural processes whereby gender, race, ability, and nationality are crucial to these politics of valuation – an oversight I attempt to correct in the book by attending to the dynamics of racial biocapitalism.

Joseph Harris summarizes some of the core puzzles the book sets out to answer, but then asks some important and difficult questions about governance and the structural determinants of poor health. His final point is, of course, spot on – even the most progressive, justice-oriented approach taken to mitigate racial disparities in pandemic infections and deaths could not have overcome decades of entrenched structural inequalities. And yet, as I argue throughout the book, this fact should not be used as an excuse to avoiding trying. Often, politicians claim an equity approach while simultaneously suggesting there is nothing they can do to counteract decades of racist

policies. Because slow violence is spatially and temporally distanced from its causes, it is easy to point to it in political rhetoric, but to completely avoid addressing in policy initiatives. When politicians or sociologists claim we cannot counteract structural inequities, these schisms become intransigent, historic truths, impossible to remedy or politically address. Rather, we should work to unveil the causes of structural harm in order to counteract their ongoing impact.

Harris's other critique is equally persuasive, especially his important point about how Chicago's bond ratings could have played a role in Lightfoot's economic decision-making. My point was not that paying down city debt was incomprehensible, but rather, that it revealed Lightfoot's priorities: buttressing the city's social safety net was not in her plans. He is equally correct that in Chapter 3, the onus of blame is laid at Lori Lightfoot's feet and directed at her Racial Equity Rapid Response Team approach. Harris suggests that I could have better disaggregated the various state actors and bureaucrats involved, especially given Trump's efforts to dismantle the very infrastructure built up with CARES Act funding. And yet, Chapters 2 and 3 draw on interview data from myriad city administrators, epidemiologists, policymakers, and non-profit actors called on to operationalize the city's mitigation strategies. Many actors and informants detail the complexities of responding to COVID-19 in real time and offer their thinking on how the plan played out. In Chapter 2, I try to humanize the many public health workers and nonprofit and for-profit organizational actors who worked tirelessly during the pandemic, while also critiquing some of their choices and priorities. Public health actors are embedded in discursive formations and complex structural conditions they have inherited from earlier practitioners, and these situated complexities help to explain some of their actions during the pandemic. I analyze processes of devolution, outsourcing, and administrative burdens, as well as the ways in which public health policies over a long historic arc built the existing infrastructure that was then repurposed to respond to COVID-19, often in ways that failed to serve vulnerable communities.

I appreciate the way Gowri Vijayakumar attends to the linkages between the management of temporal emergencies and the politics of "letting" and "making" die, and how her comments reflect on a comparison between HIV and COVID-19. Vijayakumar asks what we gain from analyzing political protests (like those that erupted after the murder of George Floyd or the most recent protests surrounding ICE interventions) as a response to both "letting die" structural neglect and "making die" racialized violence. Often, in the US, because of our focus on immediate and spectacular crises, I think we miss that these two dynamics are intimately linked in public protest. Public, political responses to pandemic neglect, immigration policing, and police violence are also enacting a politics of care that is meant to counteract necropolitical and racist devaluation. Recent protests against ICE and the national guard are certainly countering militarized dehumanization and the ways in which immigrant communities are denied affordable housing, accessible healthcare, and bilingual education. They are, in fact, engaging in a radical politics of protection. When Chicago was at the brunt of ICE repression, I was awed and humbled by the ways in which neighbors were showing up for each other, refusing to let their community members be abducted and disappeared. And in Minneapolis, scores of everyday citizens are tracking ICE and sharing their whereabouts on their apps, while simultaneously buying groceries and picking up medication

so immigrant families do not need to leave their homes. These innovative care tactics operate in spaces and through processes that are difficult to discern, but nonetheless work to undo exclusion, neglect and necropolitical devaluation through compassion and connection.

Vijayakumar ends her commentary by suggesting that while state actors and the media may still focus on the urgent and spectacular, what makes sociology such a vital practice is its attention to slow, incremental, historical and structural processes, forcing the public to recognize and reckon with enduring patterns of inequality and exclusion. To see, comprehend, and explain, however, is not enough. We must also work to counteract and reverse these slow yet enduring injustices.

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Disclosure Statement: Any conflicts of interest are reported in the acknowledgments section of the article's text. Otherwise, authors have indicated that they have no conflict of interests upon submission of the article to the journal.

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