

Repair, Not Redemption: Reproductive Value and Relational Time in *The Ministry for the Future*

Hongjie Dai

College of Foreign Languages, Nanjing University of Aeronautics and Astronautics, Nanjing 211106, China

Email: 1026898556@qq.com

How to cite this paper: Dai, H. (2026). Repair, not redemption: Reproductive value and relational time in *The Ministry for the Future*. *Literature, Language and Cultural Studies*, 7(1), 113–127. ISSN Print: 3079-5095, ISSN Online: 3079-5109. <https://doi.org/10.63313/LLCS.9224>

Published: 2026-10-22

Copyright © 2026 by author(s) and Erytis Publishing Limited.

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Abstract

Kim Stanley Robinson's *The Ministry for the Future* (2020) explores how ecological repair might acquire economic value within institutions shaped by fossil capitalism. Drawing on ecological Marxism and critiques of neoliberal temporality, this article examines the interdependence of reproductive value and relational time in the novel. It argues that the carbon coin attempts to reorient valuation toward the maintenance and reproduction of socio-ecological life while remaining vulnerable to re-financialization and constrained by the limited mandates of central banks. Close readings of monetary negotiations and the novel's engagement with market calculation show this reorientation to be a contested institutional achievement rather than a stable alternative to financial value. The article then turns to the novel's multi-generic form and its more-than-human and riddling interchapters, which bring bodily, institutional, and planetary durations into relation and challenge the deferral of ecological responsibility to an abstract future. These formal experiments articulate relational time as a temporal orientation grounded in the continuous, present-tense work of sustaining interdependence, making processes of repair perceptible that monetary valuation struggles to recognize. Yet neither reproductive value nor relational time achieves institutional closure: both remain entangled with financial incentives, verification procedures, and administrative schedules. The novel therefore locates the possibility of a livable future not in a completed post-carbon order, but in the ongoing and contested practice of socio-ecological repair.

Keywords

Kim Stanley Robinson; *The Ministry For The Future*; Reproductive Value; Relational Time; Ecological Repair; Climate Fiction

1. Introduction

Kim Stanley Robinson's *The Ministry for the Future* (2020) [5] is a climate fiction novel that imagines a near-future international institution charged with coordinating global responses to climate change. Central to the novel's economic imagination is the "carbon coin," a monetary instrument backed by participating

central banks and designed to reward verified long-term carbon sequestration and avoided emissions, thereby redirecting financial incentives toward decarbonization. Yet the carbon coin also opens onto a more fundamental question of value: if ecological loss cannot ultimately be compensated through future monetary returns, by what measure should value be reckoned once the assumptions of universal commensurability and repayability themselves come under pressure?

In what Andrea Righi in his reading of the novel describes as the neoliberal structure of debt and redemption, guilt is not eliminated but reorganized through the logic of payability [4, p. 63]. Understood in these terms, fossil capitalism moralizes economic solvency: debt is not merely a financial relation but an ethical condition, and subjects are continually positioned as owing, deficient, and in need of redemption. Yet the apparent universality of this economy of repayment is internally fractured by systematic exemption. As Righi observes, “a group is exempted from the liabilities of this pactional economy” [4, p. 63]. The logic of atonement therefore distributes redemption and sacrifice unevenly across lines of class and geography, allowing privileged subjects to evade obligations that are displaced onto more vulnerable populations. The Ministry for the Future extends this asymmetry along a temporal axis through its characterization of contemporary growth as an “intergenerational Ponzi scheme” [5, p. 171]. Present prosperity is sustained by deferring its ecological and economic liabilities onto future generations, distant populations, and damaged ecosystems. Growth can thus appear solvent in the present only because the costs required to sustain it are displaced beyond the temporal and spatial boundaries within which value is conventionally calculated. The logic of payability consequently depends on a future imagined as indefinitely capable of absorbing present losses. Once ecological debt reaches the point at which no future payment can restore what has been irreversibly lost, however, this logic reaches its limit. Monetary compensation can no longer function as an adequate measure of value because the damaged object itself may no longer be recoverable or commensurable with its supposed equivalent. Value must therefore be rethought in relation not to the promise of eventual repayment, but to the capacity to sustain, repair, and reproduce life.

Righi argues that The Ministry for the Future dismantles neoliberalism’s transcendent and sacrificial logic through a “trifold innovation” [4, p. 63]: an Anthropocene temporality that folds the future into the present [4, p. 69]; the Ministry’s political representation of future and nonhuman others outside a regime of transcendence; and the carbon coin’s immanent valuation of social and ecological reproduction. These counter-narratives directly correspond to the paper’s configurations of time, politics, and value. Both readings also mobilize Morton’s hyperobject and Haraway’s sympoiesis, and both trace a shift from profit and surplus accumulation toward reproduction and immanence. This overlap establishes a shared point of departure while clarifying the present paper’s distinct

intervention. Righi's theological genealogy of redemption runs through Benjamin, Santner, and Peter Damian, while his monetary account draws on the MMT of Kelton, Wray, and Ferguson; this paper approaches value through ecological Marxism, particularly Saito's metabolic rift. Unlike Righi, for whom this economic revolution deals the "final blow to the status quo" [4, p. 73], this paper treats the carbon coin as unfinished: re-financialization, constrained central-bank authority, and entanglement with the Children of Kali's violence preclude a perfect symbiotic currency. It also develops Righi's brief account of experimental form through Bastian's chronowashing and temporal narcissism, the "tragedy of the time horizon," and close readings of interchapters voiced by the sun and the carbon atom, together with the novel's riddling monologues. Sarkar evaluates the carbon coin's eco-speculative feasibility as a decarbonization tool [7, p. 297], while Monticelli and Frantzen read its plural strategies and nonhuman voices as utopian realism and a formal ecology [3, pp. 583–84, 598]. This paper instead asks how these narrative devices re-anchor the metric by which value itself is reckoned. Rooted in Delton Chen's Global Carbon Reward proposal, the carbon coin also links Robinson's fiction to policy debates over climate incentives and central banks' role in climate finance [4, p. 72].

Extending the preceding shift from profit toward social and ecological reproduction, this paper argues that the carbon coin does more than introduce a new financial instrument: it attempts to re-anchor value in reproductive capacity. Here, reproductive value refers to the capacity to sustain, repair, and renew the social and ecological relations on which interdependent life depends. Yet this re-anchoring remains incomplete. Vulnerable to re-financialization and constrained by the limited mandates of central banks, the carbon coin cannot stabilize reproductive value through monetary design alone. So long as this measure remains embedded in a financial temporality that discounts the future into present returns, it risks reproducing the long-termist logic it seeks to displace. This paper therefore introduces relational, or symbiotic, time as a temporal orientation grounded in the ongoing, present-tense labor of sustaining interdependence through continuous repair, rather than the managerial sequencing of targets, milestones and deadlines. Temporal reconfiguration, I argue, is therefore an enabling condition for any durable re-anchoring of value: only when the temporality of valuation is reorganized can repair be recognized as a form of present reproductive labor rather than converted into the promise of deferred yield.

In the first part, this paper traces the carbon coin from its rejection by the Federal Reserve (Chapter 45) and the European Central Bank (Chapter 50) to its eventual adoption at the central-bank meeting (Chapter 60). Reading these negotiations alongside Robinson's engagement with Hayekian market calculation, it conceptualizes reproductive value as a contested narrative achievement—one that remains vulnerable to re-financialization and constrained by the limited mandates

of central banks. The second part turns from value to temporality, examining Anthropocene temporalities, the novel's multi-generic collage, and interchapters voiced by the sun, the carbon atom, and other riddling speakers. It argues that these formal experiments articulate a relational, or symbiotic, conception of time that unsettles linear long-termism while remaining an ongoing practice of sustaining interdependence rather than a securely established temporal order. Because neither reproductive value nor relational time can stabilize itself, the analysis ultimately reaches a political question: who is authorized to undertake the continuing work of repair, and how should responsibility for that work be distributed? This question marks the necessary boundary of the present analysis while opening onto the political conditions through which value and time might become institutionally durable.

2. Reproductive Value

In *The Ministry for the Future*, Robinson articulates this asymmetry through the Indian leader Chandra Mukajee, who condemns the developed countries of the West for demanding that India bear the consequences of their histories of excessive emissions and resource extraction. Dominant actors can translate climate risk into financial products, insurance clauses, and quantified estimates of loss, thereby protecting the stability of their asset portfolios and ways of life. Victims of heatwaves, populations in the Global South, and nonhuman life, by contrast, enter financial discourse primarily as "statistical items" or "loss estimates." To preserve the surplus generated by this order, the system accepts the production of "sacrificial populations," whose deaths, dispossession, and ecological exposure are treated as costs that may be deferred, externalized, or ostensibly compensated in the future. Profit maximization thus becomes a structure in which promises are redeemed for privileged subjects, while others are made to bear the burden of indefinitely deferred repayment.

More crucially, this structure of atonement does not merely determine, along the axes of class and geography, who is redeemed and who is sacrificed. It also unfolds along a generational axis: existing subjects are granted a particular form of absolution by deferring risk and loss onto those not yet born. In this sense, the metaphor of "intergenerational Ponzi scheme" is used in the novel to characterize the contemporary regime of growth. Each round of growth appears to be achieved through price mechanisms and financial innovation; in reality, however, it is sustained by increasing the liabilities imposed on future generations, distant others, and ecological systems. Present profits and asset preservation depend on the continuous "rolling over" of ecological debt and climate risk, while the true payers of these debts are assumed in advance to be future inhabitants and nonhuman life. In other words, the fundamental problem with the neoliberal mechanism of redemption lies not simply in its encouragement of profit, but in the fact that,

through asymmetric exemption and intergenerational debt, it treats social and ecological reproduction alike as collateral that can be endlessly overdrawn. The reproduction of labor power, the maintenance of infrastructure and public services, and the land, energy, and ecosystems that sustain these processes are all recast as deficits to be offset by future returns.

From this perspective, the value configuration acquires its most basic critical orientation: it must imagine a different form of redemption, one that no longer displaces loss toward a future moment of settlement but internalizes redemption as an ongoing process of sustaining socio-ecological reproduction. Because the reproduction of labor power, public services, and infrastructure depends on land, energy, and ecosystems, social reproduction—that is, the maintenance of the conditions of life—is materially premised on the metabolism between humans and nature. By converting land, labor, and natural resources into endlessly exchangeable value, the neoliberal order of redemption exhausts not only the reproductive capacities of labor and community but also the regenerative capacities of ecological systems such as soil, oceans, and the atmosphere. This increasingly intensified “disturbed relation between humanity and nature in their metabolic interaction” is precisely what ecological Marxism, in Saito’s interpretation, identifies as the “metabolic rift” [6, p. 167]. To repair this metabolic rift in any meaningful sense, and to realize what Marx calls a “new and higher synthesis” of agriculture and industry, green reform within the existing value structure is insufficient. What is required is a fundamental transformation in the forms of labor and the organization of production. Labor must be transformed from wage labor subordinated to capital into a mode of production directed by “associated producers,” so that social production is no longer unilaterally mediated by abstract value but collectively organized by producers according to the principle of sustainable metabolism. In this way, socio-ecological reproduction ceases to function as the background condition for capital accumulation and instead becomes the primary measure of economic rationality. Seen from this angle, *The Ministry for the Future* does not yet imagine full control of the production process by associated producers. Nevertheless, through the carbon coin, public investment, and various grassroots practices, the novel tentatively embeds reproductive value within existing financial and policy structures. This point will be developed in greater detail in the following analysis of the carbon coin and its supporting mechanisms.

The novel’s opening catastrophe, the Indian heat wave, renders the metabolic rift concrete as a collapse of the lifeworld by staging the wholesale breakdown of reproductive conditions. Delhi, Uttar Pradesh, Jharkhand, much of Bengal, and parts of Gujarat and Rajasthan all lose power under extreme heat. As cooling systems fail, bodies can no longer maintain basic thermal equilibrium, and people are forced to immerse themselves in lake water in an attempt to survive. In Frank’s clinic, sanitation collapses, drinking water and food supplies are cut off, the medical

system approaches total breakdown, and looting and death become omnipresent. Social-natural metabolism thus fails on two levels at once: on the one hand, the natural system is thrown into disorder by abnormal temperatures and extreme humidity; on the other, the institutions and infrastructures that sustain the reproduction of labor power and community fracture as a whole. Power grids, water supply, medical care, and systems of social support collectively fail under the pressure of heat.

It is within this context, where crisis is narrated as the collapse of reproductive conditions and metabolic relations, that the novel's subsequent monetary and policy imaginaries become explicitly oriented toward the question of what kind of reproduction must be repaired. Public money is detached from its conventional technical function of rescuing banks and asset markets and is instead reattached to the task of stabilizing the terrestrial conditions of survival. Funds are redirected toward projects such as regenerative agriculture, reforestation, flood-control infrastructure, urban cooling, and public transportation. The carbon coin system, in turn, rewards actors who materially repair social-natural metabolism, including farmers, engineering teams, cooperatives, and local communities. These practices may not generate the highest monetary returns in the conventional sense, yet the narrative repeatedly marks them as domains "truly worthy of investment." In doing so, the novel makes reproductive value, rather than abstract profit, the implicit criterion by which the success or failure of resource allocation is measured.

The carbon coin proposal in *The Ministry for the Future* is therefore not merely an incentive mechanism for emissions reduction, but a narrative experiment that tentatively embeds the claim of reproductive value within the monetary system itself. By rewriting the conditions of monetary issuance and payment, it seeks to transform socio-ecological reproduction and metabolic repair—previously treated as externalities—into sources of value that can be priced and remunerated. In other words, what becomes worthy of monetization and payment is no longer any investment activity capable of generating profit, but rather those practices that directly improve the reproductive conditions of Earth systems such as the atmosphere, soil, and forests. Only scientifically verified acts of long-term carbon sequestration and negative emissions—from reforestation and wetland restoration to regenerative agriculture and large-scale carbon capture projects—qualify for carbon coin payments. Within this value framework, ecological repair is inversely established as a source of income, while the infinity recognized by money is re-constrained by the openness and continuity of social-natural reproduction.

That this reversal is staged as a narrative experiment rather than asserted as a technical fix is clearest in the novel's refusal to grant the carbon coin a single founding moment. The currency is not introduced through a policy blueprint or a sudden act of institutional innovation. Instead, it emerges from a protracted sequence of negotiations whose failures the narrative records at length: the

unsuccessful attempt to persuade the Federal Reserve in San Francisco in Chapter 45; the European tour in Chapter 50, during which the European Central Bank, fixated on price stability, refuses to lower interest rates by even half a percentage point “to save the world” [5, p. 212]; and, only later, the reconvened meeting of central bankers that formally adopts the plan in Chapter 60. The novel thus requires the reader to watch the carbon coin being argued into existence. This dilation of the political struggle over monetary authority is itself integral to the novel’s argument about value. In the Bundesbank scene in Chapter 50, the disagreement between Mary and the central bankers concerns, at its deepest level, not interest rates but the relation between market and state. The bankers maintain that the market is larger than all states combined and that a central bank exists only to stabilize currency and restrain inflation, while legislation properly belongs to elected legislatures. Mary counters that market and state are two components of a single legally constituted system: laws are made and enforced by nation-states, and the market is therefore not a sovereign natural force but a structure “constructed by, and parasitic upon” the legal order [5, p. 221]. Beneath the technical idiom lies a contest over a premise that neoliberalism has naturalized: whether the authority to issue money—and thereby to define what counts as economically recognizable value—belongs to a supposedly self-organizing market or to a legal and political order capable of being rewritten. Mary’s position implies that issuing a currency for carbon drawdown is already an act of valuation. The carbon coin is therefore an attempt to reclaim the authority to make such judgments from the market and return it to the domain of collective institutional decision.

The cognitive basis for this reclamation is established earlier in the novel’s engagement with Hayek’s theory of market calculation in Chapter 42. Hayek’s defense of the market rests on the claim that the price mechanism aggregates dispersed information and coordinates action more effectively than centralized planning. The novel provisionally grants the force of this argument but historicizes its technological premise: the informational advantage of price appears decisive only under conditions of computational scarcity. Once computing power and artificial intelligence become sufficiently extensive, the novel suggests, the calculation of value and cost need no longer be monopolized by market price. Prices are shown to be short-term and manipulable signals rather than reliable expressions of systemic optimality; the anonymity of capital flows renders ecological responsibility difficult to trace; and the sequence of “price first, distribution later” systematically externalizes environmental costs, future costs, and costs imposed on others. The novel consequently reframes contemporary growth as a cross-generational “Ponzi structure” in which present returns are secured against the ecological indebtedness of those not yet born [5, p. 171]. It is within this critique of market calculation that the carbon coin acquires its full significance. It does not appear merely as a green financial product layered onto the existing monetary order,

but as the monetized expression of a different calculative principle: one in which long-term carbon sequestration, rather than discounted future profit, becomes the activity that monetary issuance is designed to recognize and sustain.

At the same time, the carbon coin does not operate in isolation. It forms a “carrot and stick” mechanism in conjunction with a progressive carbon tax [5, p. 176]. On the one hand, a carbon tax that rises with emissions volume constrains the consumption and investment choices of wealthy groups and high-emission industries, while tax rebates prevent climate policy from imposing a regressive burden on lower-income populations. On the other hand, by rewarding actors who sequester carbon over the long term, the carbon coin transforms emissions reduction and ecological repair from moral appeals into institutional projects with calculable returns. The conditions of “atonement” are thus quietly reversed. Subjects are no longer absolved on the assumption that they may destroy in the present and rely on technology to solve the problem in the future. Instead, they become eligible for monetary rewards or policy relief only when they participate, in the present, in metabolic repair and in the maintenance of socio-ecological conditions of reproduction. Redemption is thereby transformed from an indefinitely deferred moment of settlement into a process internal to reproductive practice itself.

Yet the carbon coin is not a perfect symbiotic currency capable of replacing fossil capitalism without friction. On the contrary, the proposal repeatedly exposes, within the narrative itself, its contradictions with existing financial structures. For instance, if the carbon coin is to become a tradable asset and maintain its market price, it must still depend on investor interest and speculative appetite. It therefore inevitably faces the risk of being re-financialized and absorbed into a green asset bubble. In addition, in their negotiations with Mary, central banks repeatedly emphasize their limited mandate to maintain price stability, treating the carbon coin as a political decision to be made by legislatures rather than as a natural extension of monetary authority. This places the attempt to inscribe reproductive value into the power of money creation at the threshold of institutional legitimacy. The carbon coin thus carries financial futurity into the very instrument designed to value ecological maintenance. Read against this contradiction, the novel’s experiments with temporal scale and nonhuman voice shift the problem from how repair is priced to how its duration and interdependence can be perceived.

3. Relational Time

Following the previous section’s discussion of how *The Ministry for the Future* rewrites value, this section turns to the temporal imaginary on which that rewriting depends. Fossil capitalism is able to externalize socio-ecological reproduction not only because it excludes repair from the structure of value, but also because it continually defers responsibility, loss, and compensation to an abstract future. Against this logic, *The Ministry for the Future* mobilizes Anthropocene temporality

and polyphonic narration to critique neoliberalism's linear long-termism, which is organized around a transcendent future. At the same time, the novel experiments with an immanent, synchronic, and relational form of "symbiotic time," in which the climate crisis becomes perceptible through the coexistence of heterogeneous temporal scales and the ongoing labor of sustaining multispecies interdependence in the present.

Within the neoliberal framework, time is organized as a linear trajectory of progress leading from the present toward the future. Yet this future is not an open field of responsibility that coexists with the present; rather, it is abstracted and sacralized as a transcendent other. As Righi shows, the neoliberal order of redemption sustains itself not only through debt and profit, but also through a specific temporal imaginary [4, p. 69]. Subjects are required to produce ever greater surplus value in response to a moment of repayment that never fully arrives, while the future is positioned as the ultimate site where all losses will eventually be repaired and all debts will, in principle, be redeemed. In this sense, linear time becomes a means through which capitalism legitimates present extraction. So long as the future is imagined as the eventual arrival of technological progress, economic growth, and institutional repair, ecological destruction, infrastructural depletion, and crises of social reproduction in the present can all be construed as temporary costs and deferred for later resolution. The central problem exposed by *The Ministry for the Future*, therefore, is not that modern governance fails to consider the future. Rather, it is precisely through an abstracted future that existing inequalities, responsibilities, and harms are continually displaced. The future thus becomes a legitimating apparatus capable of absorbing debt, loss, and promises of compensation. For this reason, the Indian heat wave in the novel forces readers to recognize that, for certain subjects, so-called future risk is not future at all, but a present that has already arrived. What Robinson seeks to dismantle, then, is this linear temporal order, which speaks in the name of the future while continually deferring and outsourcing real wounds in the present.

Having revealed the ontological structure of neoliberal temporality, Bastian's critique of long-termism further shows how this linear model of time is concretely mobilized in contemporary climate discourse as a technique for displacing responsibility and concealing inequality. Her concept of "chronowashing" targets precisely those forms of rhetoric that appear responsible while in fact postponing responsibility [1, p. 405]. Statements such as "we are already taking responsibility for the future" or "we must think in the long term" do not necessarily mean that present harms are being seriously addressed. On the contrary, they may become a linguistic shell that obscures present failures of accountability. Correspondingly, what Bastian calls "temporal narcissism" reveals the temporal privilege embedded in long-termism: privileged subjects often project their own disaster-deferred present as universal reality and, on that basis, continue to define the climate crisis as

a future risk, a policy agenda, or a problem of governance [1, p. 406]. Time is thus no longer a shared dimension of reality, but a power structure distributed unequally across subjects. Some actors can still inhabit the present in the mode of composure, planning, and delay, while others are forced to live within a catastrophe that has already arrived. In this sense, long-termism ultimately constitutes a form of “temporal sleight of hand”: harm does not disappear, but is relocated into the future, the periphery, or the temporal domain of others.

It is especially significant that Bastian’s critique is directed precisely against the formulation of the “tragedy of the time horizon” that appears within *The Ministry for the Future*. At first glance, this phrase seems to identify the inability of political and financial institutions to look far enough ahead, and thus their incapacity to respond adequately to the climate crisis. Its problem, however, is that it still presupposes disaster as primarily future-oriented, rather than as something that has already arrived unevenly in the present of different subjects. The issue is therefore reformulated as a generalized cognitive defect, while the actual distribution of responsibility, racialized harm, and colonial temporal orders is obscured. What is more radical in *The Ministry for the Future* is not merely that it names the “tragedy of the time horizon,” but that its narrative persistently stages multiple presents. For wealthy countries and financial elites, climate change can still be discussed as a future risk, a policy agenda, or a governance problem. For the dead in the Indian heat wave, for vulnerable populations in the Global South, for displaced communities, and for continuously damaged ecosystems, however, catastrophe is not future at all; it is the already-arrived present. The central question, then, is not whether humanity can “see far enough,” but who is permitted to define their own present as universal reality, and who is forced to live within disasters whose recognition is continually deferred.

The Ministry for the Future thus attempts to construct a plural temporal structure closer to an Anthropocene conception of time. Within this framework, the future no longer functions as an ultimate judge suspended above reality, demanding that present subjects continually produce more surplus value in its name. Instead, time is reconfigured as a multi-scalar process of coexistence immanent to socio-ecological relations. In other words, Anthropocene temporality requires the recognition that institutional time, financial time, bodily time, disaster time, and Earth-system time are always superimposed upon one another and mutually implicated within the same present. The distinctiveness of *The Ministry for the Future* lies in its refusal to reintegrate these temporal scales into a homogeneous straight line running from the present toward the future. Rather, the novel persistently foregrounds the synchronicity and heterogeneity of time: the bodily precarity of those caught in the heat wave, the policy negotiations of central-bank meetings, the slow process of glacial melt, the long accumulation of the carbon cycle, and the daily persistence of grassroots repair labor do not merely follow one another in sequence; together, they

constitute the reality of crisis itself. In this sense, the future in the novel is reorganized from an external goal into a relational dimension already embedded in present institutions and everyday life. Through its Anthropocene temporality, *The Ministry for the Future* therefore dismantles the modern illusion that time is merely a line flowing forward and redefines the climate crisis as a field of reality produced by the interaction of multiple temporal scales. This temporal superimposition makes socio-ecological reproduction perceptible through the heterogeneous processes that sustain it, bringing their continuing maintenance into the question of what counts as value.

On the basis of this Anthropocene temporality, *The Ministry for the Future* further points toward an alternative configuration that may be called “relational time” or “symbiotic time.” Unlike linear long-termism, which is primarily concerned with how far “we” remain from future goals, relational time asks which relations are breaking down, which dependencies must be continuously sustained, and what forms of repair labor can keep socio-ecological systems in operation. Time here no longer appears primarily as an object to be managed through milestones, deadlines, and timetables. Rather, it appears as the continuous maintenance of interdependence, trust, responsibility, and care. As Haraway’s concept of “sympoiesis” suggests, history is not propelled by a unified subject moving toward a predetermined future; it is co-generated through the entanglement of multiple species, systems, and rhythms of life [2, p. 57]. Accordingly, symbiotic time does not mean that all beings share the same rhythm, nor does it require all subjects to submit to a single historical direction. On the contrary, it requires institutions and narratives to recognize that different life forms, communities, and ecological niches have their own modes of duration, and to seek possibilities of coordination and repair within these differences. In the context of *The Ministry for the Future*, this means that what truly sustains transformation is not the abstract temporal milestones of 2050 or 2100 themselves, but the continuous labor that underlies them: soil care, infrastructural maintenance, community rebuilding, mutual aid among migrants, long-term carbon sequestration, and various forms of repair practice that may appear mundane yet remain irreplaceable. Relational time, then, does not reject the future. It rejects the temporal theology that treats the future as an external redeemer. It draws the future back into the maintenance of concrete relations, so that salvation no longer appears as a historical moment that will eventually arrive, but as symbiotic labor continuously undertaken in the present.

At the level of narrative form, *The Ministry for the Future* makes this temporal experience perceptible. The novel repeatedly employs a multi-generic collage of meeting minutes, policy reports, poems, testimonies, memoranda, news fragments, and personal narratives. This formal arrangement interrupts the logic of continuous progression often associated with the single-plot novel and refuses to compress history into the growth or awakening of one protagonist along a unified timeline.

Different genres carry different temporal rhythms within the novel: policy documents belong to institutional time; poems and testimonies are closer to perceptual and traumatic time; technical reports point toward modeled and extended systemic time; and the lived experiences of specific characters belong to bodily and everyday time. It is precisely the juxtaposition of these temporal logics that prevents the present in *The Ministry for the Future* from appearing as a homogeneous, stable moment occupied by a single subject. Instead, it becomes a complex field formed by the overlap of multiple rhythms and scales. Moreover, through nonhuman narration and polyphonic structure, the novel continually weakens the centrality of the narrative subject. The voices of living and inanimate things, the organization of decentered perspectives, and the refusal to subsume all narrative material under an omniscient narrator together dismantle a basic premise of modern temporal narrative: the alignment of a unified subject, a unified present, and a unified direction of history. Here, time is no longer subordinated to the cognition and planning of a single perspective; it is redistributed through the co-presence of multiple beings within the narrative space. For this reason, the formal experiment of *The Ministry for the Future* constitutes the formal enactment of relational time. By allowing multiple genres, scales, and kinds of subjects to coexist within the text, the novel draws readers into an experience of reading that no longer obeys the narrative of linear progress. Symbiotic time is thereby transformed from a theoretical concept into a narrative reality continually produced by the novel's formal structure.

This temporal reconfiguration becomes most concretely legible in the placement of the novel's nonhuman and more-than-human interchapters. Rather than being gathered into a discrete section, these chapters are inserted individually between the longer, human-focalized narratives that surround them. The first appears immediately after the sixteen-page account of the Indian heatwave. Following a chapter saturated with bodily and present-tense agony, the narrative abruptly shifts to a voice that announces, "I am a god and I am not a god... As I breathe my big slow breaths, you freeze and burn, freeze and burn" [5, p. 13]. Only at the chapter's end is the speaker disclosed as the sun. The juxtaposition itself constitutes an argument: within a single page-turn, the reader is displaced from the timescale of a dying body to that of a star's "big slow breaths." Human thermal catastrophe and stellar duration are not collapsed into an identical phenomenon, but placed in a scalar relation that no single temporal perspective can contain. Robinson neither subordinates the cosmic scale to human experience nor mobilizes it as a source of consolation. The sun concludes instead with a warning: "Someday I will eat you. For now, I feed you" [5, p. 13]. What the collage produces here is not linear succession but temporal superimposition—the simultaneity theorized in this section's account of Anthropocene temporality, enacted as a formal shock.

A comparable scalar movement structures the carbon-cycle chapter, in which a

single carbon atom narrates its passage from a supernova through the formation of Earth, the body of a Jurassic dinosaur, a seam of coal mined and burned “around the year 1634,” and, finally, its capture in mine tailings as magnesium carbonate [5, p. 328]. Read against the human narratives that surround it—Mary’s policy negotiations and Frank’s life in hiding—this geological autobiography reframes the carbon coin’s promise of “long-term sequestration.” Sequestration no longer appears merely as an abstract policy horizon measured against the years 2050 or 2100, but as an intervention within a material duration that the narrative has invited the reader to inhabit from the perspective of carbon itself. The novel’s recurring direct address intensifies this effect. Many of these interchapters take the form of riddles that defer identification until their conclusions, transferring the act of recognition to the reader. The market chapter ends, “What am I? . . . I am the market”; the history chapter declares, “I am History. Now make me good”; and a later chapter voiced by the biosphere concludes, “You know what I am. Now find me out” [5, p. 385]. Through this delayed disclosure, nonhuman, systemic, and planetary scales are not merely described; they are made to solicit the reader’s participation in the present. The imperatives—“make me good,” “find me out,” and “put me to use”—transform what might otherwise become a contemplative perspective on deep time into an unfinished task addressed to the reader’s own historical moment. These chapters therefore offer no simple consolation of temporal vastness. Instead, they fold deep time into the present as a field of inherited conditions and unrealized possibilities that demands action now. This is precisely the structure of relational time developed in this section: past processes, present interventions, and future consequences are rendered not as separate temporal domains, but as mutually constitutive dimensions of a shared ecological history.

The carbon coin and various forms of repair labor partially embody relational time. They all attempt to move responsibility, previously deferred to the future, back into the present; to transform “compensation later” into “repair now”; and, through long-term sequestration, continuous maintenance, and repetitive labor, to pull time away from an imagined endpoint and back into process. Yet this temporal turn is not fully accomplished. The carbon coin still depends on measurement, verification, certification, and market acceptance. The Ministry for the Future still operates through the institutional clocks of meetings, reports, and policy coordination. Repair labor, too, must remain embedded within the procedures of the state, finance, and international governance if it is to produce effects at scale. In other words, The Ministry for the Future does not simply escape modern governance time. Instead, it opens fissures within it. On the one hand, through nonlinear narration and the juxtaposition of heterogeneous temporal scales, the novel presents a livable future as dependent on the continuing work of repair in the present. On the other hand, it repeatedly shows that any real-world climate transition cannot entirely free itself from the constraints of financial time, policy time, and verification time. For this

reason, relational time in the novel is better understood as a practice that must be continually struggled for, repeatedly interrupted, and kept unfinished, rather than as a new order already securely established.

4. Conclusion

The reconfiguration of value reanchors worth in the maintenance of socio-ecological reproduction rather than in profit. Yet, as the carbon coin's vulnerability to re-financialization demonstrates, a reproductive measure of value cannot remain stable while embedded in a financial temporality that discounts future conditions into present returns. Reproductive value therefore requires temporal reconfiguration as one of its enabling conditions. Only when valuation is reconceived around the relational and present-tense labor of sustaining interdependence—rather than as a linear progression toward a redemptive future—can repair be recognized as a form of present reproductive labor rather than converted into deferred yield. However, the political consequences of reconfiguring value and time together remain unresolved: although the novel multiplies the agents involved in repair, it neither consolidates their authority to act nor settles how responsibility should be distributed among them. This indeterminacy forms part of a broader pattern: repeatedly, the novel marks the incompleteness and instability of its own experiments. The carbon coin remains vulnerable to speculative appropriation and the bounded mandates of central banks; relational time, meanwhile, cannot fully escape the verification, reporting, and market recognition through which ecological action becomes administratively legible. These tensions are not external defects in the analysis but constitutive limits; they belong to the structure of the argument itself. The Ministry for the Future's significance for thinking about climate governance lies precisely in this refusal of institutional closure. Rather than projecting an ideal community attainable through ethical awakening alone, the novel offers a cognitive map of the transformations in value and temporality that a post-carbon order would require, while simultaneously registering the conflicts, exclusions and residual instabilities that such a transformation would continue to carry. Its contribution to climate governance is therefore distinct from that of policy discourse: it does not offer a model awaiting implementation, but an imaginative reconstruction of the conditions through which a livable future might become perceptible, valuable, and politically negotiable.

Acknowledgements

This work was supported by the Graduate Research and Innovation Projects of Jiangsu Province, China (The Representation of Carbon Economy in 21st-Century American Climate Fiction) (KYCX25_0666).

References

- [1] Bastian, M. (2024) Is Long-Term Thinking a Trap? *Environmental Humanities*, 16(2), 403–421.
- [2] Haraway, D.J. (2016) *Staying with the Trouble: Making Kin in the Chthulucene*. Duke University Press.
- [3] Monticelli, L. and Frantzen, M.K. (2025) Capitalist Realism Is Dead. Long Live Utopian Realism! A Sociological Exegesis of Kim Stanley Robinson's *The Ministry for the Future*. *The Sociological Review*, 73(3), 583–606.
- [4] Righi, A. (2022) The Currency of the Anthropocene: Dismantling the Theological Presupposition of Neoliberalism in Kim Stanley Robinson's *The Ministry for the Future*. *European Journal of Creative Practices in Cities and Landscapes*, 5(2), 61–77.
- [5] Robinson, K.S. (2020) *The Ministry for the Future*. Orbit.
- [6] Saito, K. (2017) *Karl Marx's Ecosocialism: Capital, Nature, and the Unfinished Critique of Political Economy*. Monthly Review Press.
- [7] Sarkar, S. (2024) The Carbon Coin: An Eco-Speculative Approach to Decarbonisation in Kim Stanley Robinson's *The Ministry for the Future*. *Green Letters*, 28(4), 297–310.