political contexts affect scientific work. Questions of scientific "truth" remain outside the scope of their analyses and are, in any case, misguided since scientific knowledge is ever evolving. Nonetheless, in this instance, he argues, the endeavor is not only justified but worthwhile, because of the "new Lysenkoism" that has taken root in Putin's Russia.

Graham sets the stage by providing his readers with a brief yet illuminating history of late 19th and early 20th century genetics. He also describes the diverse positions taken by Soviet geneticists in the decade following the Bolshevik Revolution. Then he turns his attention to Lysenko and his work, even recounting an accidental meeting with Lysenko in Moscow in1971. That moment enabled him to solicit the man's own perspective on his legacy. Lysenko had been thoroughly discredited, yet he insisted to Graham that he had not directly ordered and therefore bore no culpability for the suffering of other scientists. Graham disagrees, concluding not only that Lysenko's claims of innocence are disingenuous but that his research was fundamentally flawed.

In the final chapters, Graham turns to the matter that seems to have motivated him to write this book: the "surprising effects" of the new Lysenkoism. After introducing the fundamentals of epigenetics, he addresses the ways in which debates about Lysenko and the inheritance of acquired characteristics have influenced scientific inquiry and discussion of social and political issues in 21st century Russia. Graham chronicles efforts by conservative forces in Russia to use epigenetics in defense of creationist and homophobic positions. He describes scientists' avoidance of research on potentially important subjects (such as the intergenerational effects of famine) out of concern that what they might find could encourage the rehabilitation of Lysenko and all he stood for. He also points out other scientists who have adopted a "best defense is good offense" strategy to argue that those who would emphasize the inheritance of acquired characteristics should study the enduring effects of Stalinist political repression on the Russian psyche.

Graham concludes that Lysenko and epigenetics are "being used as a football by conflicting ideological factions" (134). It deserves note that this phenomenon is hardly unique to Russia. Consider, for example, conservative analyst Peter Ferrara's essay disparaging global warming science as "a disgraceful episode of Lysenkoism" (*Forbes*, April 28, 2013). Nonetheless, as Graham notes, given Russia's history the "passions" surrounding epigenetics are far stronger there. His focus on these developments is not only interesting and very readable but a valuable contribution to the history of Russian science.

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The Nature of Soviet Power: An Arctic Environmental History. By Andy Bruno. New York: Cambridge University Press, 2016. xxii, 288 pp. Notes. Index. Photographs. Tables. Maps. $99.99, hard bound.
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Andy Bruno's ambitious and impeccably researched monograph revisits the territory examined by Paul Josephson's *The Russian Conquest of the Arctic* (2014) and John McCannon's *Red Arctic* (1998), and arrives at many of the same negative conclusions, but sets itself apart in its insistence upon finding new explanations. According to Bruno, scholars have tended to explain Soviet environmental shortcomings by arguing that a) communist economics are inherently wasteful and destructive;

b) competition with the west prompted Soviet leaders to take the short view; or c) communist political systems are unable to balance conflicting priorities and thus ignore environmental problems. Bruno, without discounting these contentions, argues that they are insufficient. Ultimately, Bruno agrees with previous analyses that blame the Soviet regime for sometimes astonishing and sometimes senseless environmental destruction, but wants to add subtlety to our understanding by showing the influence of three other factors: a deep ambivalence toward nature inherent in Russian culture, the peculiarities of the world economy in the mid-twentieth century, and the impact of the natural world itself.

In the early chapters of the book, Bruno introduces his most developed explanation for Russian environmental failures: the existence of a destructive synergy between a desire to assimilate nature among some influential actors, and a desire to conquer it among others. Bruno acknowledges the well-documented Soviet drive to subdue nature, especially prevalent during the Stalin era, but also sees a parallel discursive thread in Russian and Soviet culture that strove for harmony and mutual benefit for humanity and the non-human world. Bruno spends more time discussing the latter (because the former has received significant attention) by showing its significance before and during the construction of the Russian railroad line. For example, Bruno cites a Soviet pamphlet, *The Colonization of the North and the Means of Communication*, which described the far north as "uninhabited and deserted," and thus in need of improvement for humans as well as for itself (29). Bruno also sees this dynamic at work in the development of the nepheline industry, with scientists such as Aleksandr Fersman arguing that well-designed industrial combines could avoid polluting the surroundings and thereby generate social and economic benefits, while his contemporaries who cared little about the integrity of the natural world could proceed unchecked precisely because of Fersman's optimism.

Bruno highlights the importance of his second explanatory mechanism, the world economy, most directly in Chapter 5, "Scarring the Beautiful Surroundings," which focuses on Soviet metal working. Here, Bruno cites a *Lonely Planet* travel guide describing the smelting town of Monchegorsk as a reasonable approximation of Hell. "Why did a town serving the nickel industry in the far north turn into an environmental tragedy," Bruno asks, and why were the areas downwind of the smelters transformed into "hauntingly denuded landscapes with occasional dead shrubs and trees protruding from the toxic ground"? (170–71). In Bruno's view, the shift from extensive to intensive industrial development in the late twentieth century in much of the world decreased the profits generated by heavy industry, which drove the Soviets to overexploit and thus pollute. Hence, "neither the inherent functioning of the centralized command economy nor the competitive logic of the capitalist world-system sufficiently account for the massive environmental ruin in the Soviet Union"—instead, it is the combination of the two impulses that produced a hellscape (210).

Bruno's third explanatory mechanism centers on the agency of the natural world, because in Bruno's view, the characteristics of the reindeer, the rocks, and the railway beds shaped the world that the Russians made. As Bruno puts it, the "physical, geographical, and ecological features of the Kola north offered opportunities for, accommodated meddling by, and posed resistance to Soviet industrializers" (7). Bruno is careful to stop short of ascribing will to inanimate concepts such as climate, hydrology, and geology, but he maintains that such entities can shape history; in the case of valuable ores, Bruno says that they "lured exploration geologists to the north" (9). This is an interesting philosophical claim, although in some cases, it strains credulity; the aforementioned valuable ores, for instance, undoubtedly figure in the story of the Soviet far north, but are these rocks in some way responsible for their own careless exploitation by actively luring prospectors? At one point, Bruno

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goes so far as to accuse the rocks, not as easily processed as Soviet planners anticipated, of "chicanery" (99).

The Nature of Soviet Power represents an impressive effort to view Russian environmental history from a wider perspective. Rather than tell a simple story of Bolshevik aggression and myopia, Bruno describes the damaged northern environment as the result of multiple interacting forces. At times, the outcome seems overdetermined and the interaction between the forces seems murky, since Bruno's three proposed causes augment rather than replace those that have come before, and do not appear consistently throughout the narrative. Overall, however, Bruno has made a compelling contribution that should spur new and much-needed conversations.

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The Russian Canvas: Painting in Imperial Russia, 1757–1881. By Rosalind P. Blakesley. New Haven: Yale University Press, 2016. xiv, 380 pp. Notes. Bibliography. Index. Illustrations. Plates. $75.00, hard bound.
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With publication of *The Russian Canvas* Rosalind P. Blakesley places a capstone on two decades of primary research on the art and art institutions of Imperial Russia. Her published work includes numerous articles, book chapters, and a book on Russian genre painting. Simultaneously, this comprehensive, beautifully crafted study offers western historians of Russian art an occasion to celebrate their field's arrival at a new stage of maturity. Blakesley's publications taken together with those of the scholars cited in her extensive notes and bibliography permit an understanding of Russian art that is vastly more nuanced and sophisticated than the accounts that have tended to prevail since the 1970s and 1980s.

Blakesley begins with the founding of the Imperial Academy of Arts in Saint Petersburg in 1757. Long a bugbear of Soviet art history and characterized in modernist histories as hopelessly *retardataire*, the Academy of Arts is shown in Blakesley's account to have played a more constructive role in Russian art than previously imagined. Rather than regarding such institutions as the Saint Petersburg Society for the Encouragement of the Arts or the private art school established at Arzamas in 1767 as challenges to its authority, the Academy engaged them in a symbiotic relationship, bestowing ranks and awards upon successful graduates of other institutions and recognizing their contributions to the development of Russian art.

A virtue of Blakesley's work is the extent to which she aligns her research on the Imperial Academy of Arts with recent work by scholars examining the internal debates of art academies in other parts of Europe, notably the Royal Academy of Arts in Great Britain (established 1768) and the Real Academia de Bellas Artes in Spain (established 1744). In so doing, she underlines the extent to which the Academy of Arts in Russia was part of common European project in which various nations sought to create a "national school" of art, even while acknowledging a shared European agenda. Cleverly, Blakesley makes use of Dmitry Levitsky's portraits of pupils from the Smolny Institute to refute the notion that east European artists engaged in a desperate game of catch up with their western peers, showing that Levitsky deployed the stylistic canons of European portraiture in a creative way, making iconographic choices in response to specifically Russian circumstances.

Blakesley devotes welcome attention also to the Academic system of sending its graduates abroad for study, a practice sometimes seen as reinforcing the dependence