
ARTICLES

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“Red Star” Another Look at Aleksandr Bogdanov

In recent years, there has been a minor explosion of interest in Aleksandr Bogdanov and other radical Russian intellectuals of pre-Stalinist days. After being in limbo for half a century, their ideas seem almost fresh and vibrant: Set against subsequent Soviet history, their aborted visions of a socialist future seem to give a sense of what might have been. And who knows—in the Gorbachev period, as the Soviet Union sorts out its problems and policies, some of their ideas might enjoy a new lease on life. For these and other reasons, they have recently attracted special interest.

Of course, in Bogdanov's case, there is much to be interested in. Born Aleksandr Aleksandrovich Malinovskii in 1873, Bogdanov trained as a physician in Moscow and Khar'kov, worked briefly as a psychiatrist, and published widely on philosophy, politics, social theory, social psychology, economics, and culture.¹ His early activism in leftist politics led to several arrests, internal exile (1894–1895, 1899–1903), and exile abroad (1904–1905, 1905–). In 1903 he was one of the original Bolsheviks. Then he published his first philosophical trilogy, *Empiriomonism* (1904–1907). Although well received in some circles, this work occasioned an ideological break with Bolshevism, immortalized in Lenin's acerbic polemic *Materialism and Empiriocriticism*, which attacked Bogdanov for trying to reconcile Marxism with the “idealist” neopositivism of Ernst Mach.² Bogdanov then tried his hand at popular fiction, first in *Red Star* (1908), a utopian novel set on Mars, and subsequently in a sequel, *Engineer Menni* (1913); these too received mixed reviews. In 1913, he began setting forth a grand theory of universal structure in a second philosophical trilogy entitled *General Organizational Science (Tectology)* (1913–1922).³ During the Great War, he returned to Russia and served as a military physician. He took no part in the Bolshevik seizure of power in 1917 but was active in the Proletkul't movement until it was disbanded in 1921.⁴ There-

This essay is dedicated to the memory of Kendall Bailes, whose Master's thesis many years ago initiated the modern reconsideration of Bogdanov's ideas.

1. See, for example, A. Bogdanov, *Kratkii kurs ekonomicheskoi nauki* (Moscow 1897), *Osnovnye elementy istoricheskogo vzgliada na prirodu* (St. Petersburg, 1899), *Poznanie s istoricheskoi tochki zreniia* (St. Petersburg, 1902), *Novyi mir (Stat'i 1904–1905)* (Moscow, 1905), *Iz psikhologii obshchestva*, 2nd ed. (St. Petersburg, 1906), *Priklucheniia odnoi filosofskoi shkoly* (St. Petersburg, 1908), *Padenie velikogo fetishizma: Vera i nauka* (St. Petersburg, 1910), and *Kul'turnye zadachi nashego vremeni* (Moscow, 1911).

2. Aleksandr Bogdanov, *Empiriomonizm*, 3 vols. (Moscow and St. Petersburg, 1904–1907); V. I. Lenin, *Materializm i empiriokrititsizm: Kriticheskie zametki ob odnoi reaktsionnoi filosofii* (Moscow: Izdanie Zveno, 1909).

3. A. Bogdanov, *Vseobshchaia organizatsionnaia nauka (Tektologiya)*, parts 1–3 (Berlin, Petrograd, Moscow, 1913–1929).

4. See A. Bogdanov, *Sotsializm nauki (Nauchnye zadachi proletariata)* (Moscow, 1918), *Die Kunst und das Proletariat* (Leipzig, 1919), *Filosofia zhivogo opyta* (Moscow, 1920), and *Elementy proletarskoi kul'tury v razvitiu rabocheho klassa* (Moscow, 1920).

after, according to most biographers, he devoted himself to science. In 1926, Bogdanov founded the Institute of Blood Transfusion in Moscow and the following year published a book on his work there.⁵ He died in 1928.⁶

By modern standards, Bogdanov's interests seem remarkably diverse—medicine, psychiatry, blood research, science fiction, Bolshevism, sociology, social psychology, economics, art, philosophy, the philosophy of science. Understandably, most secondary works dealing with Bogdanov have taken a piecemeal approach, focusing on one or another of his pursuits. This approach has produced some remarkable claims about his originality—that he was a founder of cybernetics, that he pioneered organization theory, that he was a profoundly original thinker on science and society, that he was a major philosopher, that he was the founder of Soviet science fiction.⁷ Set against today's problems and agendas, Bogdanov's work might well seem prescient and inventive. In order to evaluate his originality, however, we must see Bogdanov not in our context but in his own. A case in point is his Martian fiction.

Despite the recent scholarly interest in Bogdanov, most of his publications remain bibliographic rarities. The great exception is his utopian novel *Red Star*, the most popular and accessible of his works. First published in 1908, it was reissued several times in the years following the revolution. A stage version was presented by Proletkul't in 1920, and the novel was subsequently translated into German (1923) and Esperanto (1929).⁸ The sequel, *Engineer Menni*, was also popular: First published in 1913, it had appeared in at least six editions by 1923.⁹ Following Bogdanov's death, both novels were reissued by the popular science periodical *Vokrug sveta* (1928–1929), but they were not republished in the Soviet Union for half a century. Just recently, *Red Star* has appeared in a new Soviet edition of 400,000 copies.¹⁰

Bogdanov's novels are also his only major works available in English. The translations are quite recent, and their appearance has occasioned new evaluations of Bogdanov's thought. The first English edition of *Red Star* appeared in 1982 in Leland Fetzer's excellent anthology of prerevolutionary Russian science fiction.¹¹ In his com-

5. Aleksandr Bogdanov, *Bor'ba za zhiznesposobnost'* (Moscow: Novaia Moskva, 1927).

6. The best general discussion of Bogdanov's ideas is to be found in Alexander Vucinich, *Social Thought in Tsarist Russia: The Quest for a General Science of Society, 1861–1917* (Chicago: University of Chicago Press, 1976), 206–230.

7. Such claims are endemic to modern discussions of Bogdanov in both the Soviet Union and the west. For example, a Soviet article depicts Bogdanov as a founder of systems theory: M. I. Setrov, "Ob obshchikh elementakh tektologii A. Bogdanov, kibernetiki i teorii sistem" in *Uchenye zapiski kafedr obshchestvennykh nauk vuzov goroda Leningrada*, 1967, no. 8, 49–60. See also the sources listed in Loren Graham's useful biographical article, "Aleksandr Aleksandrovich Bogdanov (Malinovskii)" in *Dictionary of Scientific Biography* (New York: Charles Scribner's Sons, 1970–1978) 15 (suppl. 1) (1978): 38–39. This tendency to see Bogdanov's views as highly original and important can be detected even in works that are critical of his ideological failings. See, for example, Dominique Lecourt, "Bogdanov, Mirror of the Soviet Intelligentsia" in Lecourt, *Proletarian Science? The Case of Lysenko*, intro. Louis Althusser, trans. Ben Brewster (London: Humanities Press, 1977), 137–162; this essay was originally published as an introduction to a French anthology of Bogdanov's writings, *La Science, l'art et la classe ouvrière*, trans. Blanche Grinbaum (Paris: François Maspero, 1977).

8. A. Bogdanov, *Krasnaia zvezda* (St. Petersburg, 1908).

9. A. Bogdanov, *Inzhener Menni* (Moscow, 1913).

10. *Russkaia fantasticheskaia proza XIX–nachala XX veka*, Biblioteka fantastiki, vol. 10 (Moscow: Izdatel'stvo Pravda, 1986), 431–568.

11. *Pre-Revolutionary Russian Science Fiction: An Anthology (Seven Utopias and a Dream)*, ed. and trans. Leland Fetzer (Ann Arbor, Mich.: Ardis, 1982), 71–179.

mentary, Fetzter emphasizes the modernity of the novel, noting the “predictions of many technical advances in the future which cannot fail to impress the reader with their accuracy: radioactive energy, computerized labor statistics, artificial fibers, and rocketry, for example.” He also emphasizes “Bogdanov’s social prescience,” claiming that, in his treatment of human relations, “Bogdanov’s words seem strangely prophetic.” Fetzter sees *Red Star* as Bogdanov’s “opportunity to present an outline of human history, thinly disguised as a history of Mars, from the Marxist point of view, of course,” but he dismisses its sequel, *Engineer Menni*, as “inferior to it in every respect.”¹²

In 1984, Charles Rougle published a new translation of *Red Star*, together with the first English version of *Engineer Menni* and a poem, “A Martian Stranded on Earth.” These translations, bracketed with essays by Richard Stites and Loren Graham, form what must now be regarded as the standard English edition of these works.¹³ Stites has provided an excellent introduction to the novels. His opening essay, “Fantasy and Revolution,” discusses their historical place in various traditions: science fiction and utopian thought in Russia and the world; scientific and popular views of Mars; Bolshevism; Russian social and political thought; and Bogdanov’s intellectual biography. From these contexts, Bogdanov’s novels emerge as two minor contributions to seven or eight coherent traditions. From this, it is easy to see how the review of *Red Star* in *Russkoe Bogatstvo* could have dismissed the novel as “trendy, derivative, and unmoving.”¹⁴

What, then, is interesting about Bogdanov’s fiction? In his concluding essay, “Bogdanov’s Inner Message,” Loren Graham expands Fetzter’s earlier analysis, arguing that Bogdanov was a “deeply original thinker about the relationship of science and society” who would have “fitted well into one of the university programs formed in the United States and Europe in the late seventies on ‘Science, Technology and Society’.”¹⁵ What makes Bogdanov original and modern, in Graham’s view, was his recognition that

even after socialism had been successfully created, civilization would be plagued by a whole series of problems, which we would now probably recognize as problems of “postindustrial societies.” Bogdanov was brilliantly prescient in sketching out issues that would face all industrialized nations two generations after he first conceived them: the dangers of atomic energy, the problems of preserving the environment, the dilemmas of biomedical ethics, and the shortages of natural resources and food.¹⁶

According to this reading, Bogdanov was indeed both original and prescient.

Such an interpretation, however, requires two assumptions: First, that these ideas, or their combination, were indeed original to Bogdanov; and, second, that in discussing “contemporary” socialism on Mars, Bogdanov was actually talking about future socialism on Earth. Both assumptions are worth exploring.

Red Star portrays an advanced socialist society established by the indigenous and remarkably humanoid Martians on their home planet, as seen through the eyes of

12. *Ibid.*, 71–73.

13. Alexander Bogdanov, *Red Star: The First Bolshevik Utopia*, ed. Loren R. Graham and Richard Stites, trans. Charles Rougle (Bloomington: Indiana University Press, 1984); hereafter, *Red Star*.

14. *Ibid.*, 12.

15. *Ibid.*, 243.

16. *Ibid.*, 242–243.

Leonid, a Russian revolutionary visiting from Earth and fresh from the turbulence of 1905. Subtitled “A Utopia,” the novel suffers from the drawbacks intrinsic to that genre. The purpose of a utopia is to portray an ideal society, so the reader is lectured about that society endlessly; there must be some literary excuse for all this lecturing, so the chief character is a naive outsider to whom everything must be explained; and all of this gets boring, so the plot is often thickened with melodrama—a love interest, a mental breakdown, or a murder (Bogdanov employed all three). The sequel, *Engineer Menni*, chronicles how this ideal Martian society came into being.

And what is this ideal society like? It occupies the entire planet of Mars. Its members speak a common language and travel the planet freely, from job to job, at will. It is run by a council, which bases its policies on data from a bureau of statistics. It faces difficult problems, however, notably the exhaustion of the dying planet’s energy resources, which is leading the council to contemplate an invasion of Earth.

To contemporary Russian readers, all this must have seemed like a leftist rehash of the works of H. G. Wells. Indeed, *Red Star* can be read in its entirety as a peculiar Russian variant of the Wellsian vision, blending themes from *War of the Worlds* (1898), with Mars as a dying planet, running out of food, and invading the Earth; *When the Sleeper Wakes* (1899), with its portrayal of the inevitable but problematic course of social revolution and the class struggle; and *First Men in the Moon* (1901), with its warning about the environmentally damaging effects of human technology and its portrait of a benign and well-organized lunar society alarmed by the energetic aggressiveness and dangerous disharmony of humankind. Although these scientific romances structured the framework of Bogdanov’s novels, the society those novels depict seems most closely to resemble that described by Wells in a nonfictional work entitled *A Modern Utopia* (1905).¹⁷

In conceptualizing his “modern” utopia, Wells too had to cope with the awkwardness of the genre. In order to avoid the “hardness and thinness” of utopian speculations in which “the blood and warmth and reality of life is largely absent” and whose “common fault is to be comprehensively jejune,”¹⁸ he rejected the novel form in favor of straightforward exposition. Nonetheless, three years before *Red Star* appeared, Wells had already published the view that “no less than a planet will serve the purpose of a modern Utopia”; that the whole world “will surely have a common language”; that there must be “the utmost freedom of going to and fro”; that its population will be “a migratory population beyond any earthly precedent”; that “the Modern Utopia must be not static but kinetic, must shape not as a permanent state but as a hopeful stage, leading to a long ascent of stages”; and that such a society would best be run by an organizational elite, basing decisions on the data generated by a bureau of statistics using the contemporary equivalent of a computer center.¹⁹ Did Bogdanov read Wells’s scientific romances and, in particular, his utopia? It seems likely. They were well known and widely published in Europe and even in Russia, where the popular weekly *Vokrug sveta* regularly serialized new works by Wells in Russian translation as soon as they appeared.

It is a truism that a utopia is really about two societies, the one that the author imagines and the real one in which he lives. Since Bogdanov’s utopia is on Mars, however, we must distinguish two literary subgenres into which his novel fits. The first is

17. H. G. Wells, *A Modern Utopia* (London: Chapman and Hall, 1905).

18. H. G. Wells, *A Modern Utopia*, reprint of 1st ed. (Lincoln: University of Nebraska Press, 1967), 9.

19. *Ibid.*, 11, 17, 35, 47, and 5.

the science fantasy of "class conflict," in which the future of the class struggle is pondered; good examples are Wells's *The Time Machine* (1895) and *When the Sleeper Wakes* (1899), Evgenii Zamiatin's *We* (1920, 1924), Karl Čapek's *RUR* (1921), Thea von Harbou's *Metropolis* (1926–1927) (as well as the 1926 film by her husband Fritz Lang), and Aldous Huxley's *Brave New World* (1932). Note, however, that all these works are set on a future Earth; other worlds simply do not figure.

Bogdanov's novel is set not on a future Earth, however, but on a present Mars, and this can make a considerable difference in how we interpret it. In addition to "class conflict" tales, there were also many contemporary "planetary" tales that portrayed a society on another world, often contrasting it with that on the Earth. Around the time Bogdanov wrote, Mars was the favored planet for such stories, thanks to the influential contemporary popularizations by astronomer Percival Lowell, notably *Mars* (1895), *Mars and Its Canals* (1906), and *Mars as the Abode of Life* (1908).²⁰ Examples of such Martian novels are Percy Greg's *Across the Zodiac: The Story of a Wrecked Record* (1880); Kurt Lasswitz's *Auf zwei Planeten* (1897); Wells's *War of the Worlds* (1898); Edwin L. Arnold's *Lieut. Gulliver Jones* (1905), later reissued as *Gulliver of Mars*; and Edgar Rice Burroughs's "Under the Moons of Mars" (1912), reissued as *A Princess of Mars*, the first of a dozen works in his Barsoom series devoted to adventures among the humanoid and not-so-humanoid creatures of the red planet.

In most class conflict tales, the time is the future, and the society depicted is a human successor to today's; by contrast, in planetary stories, the time is now, and the otherworldly society is different from our worldly one in crucial ways. Only Wells managed to generate an impression of the truly alien, but even Lasswitz and Burroughs, who fictively populated Mars with recognizably human types, used their tales to highlight the differences between the two planets. In each work, Earth and Mars share the laws of nature, including the Darwinian struggle for existence and certain laws of history posited by their authors. These common laws of nature, however, do not produce common results: The Martians of each differ from Earthlings because Mars is a different planet—smaller, older, colder, farther from the sun, poorer in resources, and short on water.

Bogdanov's utopia, then, is both a class conflict and a planetary tale. He was not the first to blend these two formats; here, too, Wells led the way. In Wells's *First Men in the Moon* (1901), two Britons travel to the Moon through a series of misadventures. There they come upon the Selenites, an intelligent lunar civilization that is essentially an insect hive, with each class biologically fitted to its social function. When the Grand Lunar begins to hear about Earth and its history from the interlopers, however, he becomes anxious about the nearby threat posed by the aggressive and violent character of human society. In many respects, the Selenite society is utopian—it is global, monolingual, efficient, centralized, and harmonious. But Wells surely does not intend it as a plausible or desirable model for the human future: he is not suggesting that we become an insect hive. Clearly, the lunar society is there, not for emulation, but for comparison, contrast, and commentary.

Did Bogdanov portray his extraterrestrial utopian society for these same purposes? In planetary utopias, after all, the features of otherworldly civilizations are not neces-

20. On Lowell, see L. Leonard, *Percival Lowell: An Afterglow* (Boston, 1921); A. L. Lowell, *Biography of Percival Lowell* (New York, 1935); Brian G. Marsden, "Percival Lowell" in *Dictionary of Scientific Biography* (1973) 8: 520–523; and Michael J. Crowe, *The Extraterrestrial Life Debate 1750–1900: The Idea of a Plurality of Worlds from Kant to Lowell* (Cambridge: Cambridge University Press, 1986), 480–546.

sarily intended to apply to the Earth. There is no doubt that Bogdanov admires his Martian society as a kind of socialist ideal, but does he seriously propose the Martian present as the Earth's future? Graham writes, "One should remember that Mars and Earth in this story are not simply two different planets; they also represent, in accordance with Marxism, the two successive historical epochs of capitalism and socialism."²¹ But do they?

Bogdanov's novel contains a remarkable prediction noted by both Stites and Graham. It appears in Sterni's pessimistic speech about the future of socialist revolution on Earth:

"The individual advanced countries where socialism triumphs will be like islands in a hostile capitalist and even to some extent precapitalist sea. . . . Its character will be perverted deeply and for a long time to come by years of encirclement, unavoidable terror and militarism, and the barbarian patriotism that is their inevitable consequence. This socialism will be a far cry from our own."²²

Of course, this is a prediction about history and communism, not "science and society." But it raises a nettlesome problem about Bogdanov's intentions, for it demonstrates that in some respects, at least, he envisioned socialism on Earth and Mars as distinctly different.

Which aspects of Martian socialism does Bogdanov see as a product of uniquely Martian conditions? Which aspects are applicable to Earth? To answer these questions, let us turn to Bogdanov's text. The climax of *Red Star* is the debate between two Martians, Sterni and Netti, over the future of Earth. Sterni concludes by calling for its invasion and the eventual elimination of humanity. His justification rests on the differences between Mars and Earth and the consequent superiority of Martian socialism to that which will arise on Earth. Earth "does not recognize any principle of fraternal mutual assistance" and "is terribly riven by political and national divisions," he notes, and "this means that instead of following a single and uniform path of development in a single broad society, the struggle for socialism is split into a variety of unique and autonomous processes in individual societies with distinct political systems, languages, and sometimes even races."²³

It is in this context that Sterni mouths Bogdanov's remarkable prediction, quoted above, about the future of socialism on Earth. A few paragraphs later, he elaborates the same point:

"In many respects this will not be *our* socialism. Centuries of national division, a mutual lack of understanding, and brutal, bloody struggle will leave deep scars on the psychology of liberated Earthly humanity. We do not know how much barbarity and narrow-mindedness the socialists of Earth will bring with them into their new society."²⁴

Thus, Sterni's argument is based on the view that socialism on Mars and on Earth will be fundamentally different and incompatible. Because he regards Martian socialism as superior, he concludes that "a higher form of life cannot be sacrificed for the sake of a

21. *Red Star*, 247.

22. *Ibid.*, 113–114.

23. *Ibid.*, 112–113.

24. *Ibid.*, 115.

lower one. . . . There is but one Life in the Universe, and it will be enriched rather than impoverished if it is *our* socialism rather than the distant, semibarbaric Earthly variant that is allowed to develop, for thanks to its unbroken evolution and boundless potential, our life is infinitely more harmonious.”²⁵

Netti disagrees, not with Sterni’s facts, but with his values. On Earth, she says,

“Proceeding through a bitter and difficult struggle from the lowest stages to the higher, this consciousness has finally assumed *human* forms closely related to our own. But these forms are not identical with ours: the history of a different natural environment and a different struggle is reflected in them; they conceal a different play of spontaneous forces, other contradictions, other possibilities of development. . . . Earthlings are not the same as we. . . . They and their civilization are not simply lower and weaker than ours—they are *different*.”²⁶

And what makes them different?

“The struggle for survival is more vigorous and intense there, nature is continually creating many more forms of life, but many more of them also fall victim to the march of evolution. This cannot be otherwise, because the source of life—the sun—provides Earth with eight times more energy-giving rays than Mars. . . . [Sterni] would drain forever this stormy but beautiful ocean of life!”²⁷

She concludes: “The unity of Life is our highest goal, and love is the highest expression of intelligence!”²⁸

Note that Sterni and Netti are arguing about whether socialism on Earth will be inferior to Martian socialism or simply different—and, hence, whether the invasion of Earth and the elimination of its humans are justified. To be sure, Netti sees virtue in diversity and Sterni does not. But both agree on three points: the conditions on Earth and Mars are very different; this difference makes their societies, and their socialisms, very different; and neither is a stage in the other’s past or future.

How did the conditions on Mars shape the character of its socialism? The issue is not taken up further in *Red Star*, a utopia geared to describing the ideal society, but it is one of the central themes of its sequel, *Engineer Menni*. Fetzer, Stites, and Graham all dismiss the latter novel as inferior to *Red Star*, but it has a different and equally important purpose: to chronicle the historical development of Martian socialism. In its foreword, Bogdanov compares the histories of Mars and Earth, attributing their differences to the role of physical conditions.

The history of Mars is basically very similar to that of Earthly humanity, having followed the same course from the tribal system through feudalism to the reign of capital and through it to the unification of labor. This development, however, proceeded more gently and at a slower pace. The natural environment on Mars is not as rich as ours; on the other hand, the evolution of life there has not demanded the same extravagant sacrifices as on Earth. . . . Martian humanity developed slower [*sic*] than ours, but it never knew the worst forms of our slavery, the destruction of entire civilizations, or the epochs of deep and cruel reaction that we have experienced. . . .

Why was this so? The natural environment of the planet was poor and harsh,

25. *Ibid.*, 116.

26. *Ibid.*, 116–117.

27. *Ibid.*, 117–119.

28. *Ibid.*, 119.

and the experience of thousands of generations built up the dim awareness that it is extremely difficult to restore what has once been destroyed. There was also less discord among people: different tribes and nationalities were more closely related and intercourse among them was easier. The land mass was not broken into separate continents by broad seas and oceans, the mountain ranges were not as high or impassable as on Earth. Also, the weaker force of gravity on Mars facilitated physical movement—all bodies on Earth are two and a half times heavier. The various languages arose from a common source and never became completely distinct. . . . Thus people understood each other better and their unity was more profound.²⁹

According to Bogdanov, even before the revolution, “a democratic order had been established in all but a few backward countries, but something even greater had been accomplished at the same time, namely, the almost complete cultural and political unification of Mars.”³⁰

In these passages, Bogdanov takes the view that harsh environmental conditions produce not competition, but cooperation—not an intensification of the struggle for existence between members of the same species, but rather a banding together in the wider struggle for their common existence. In western literature, this idea is usually associated with the “anarchist prince” Petr Kropotkin (1842–1921) and his 1902 opus, *Mutual Aid*.³¹ But Bogdanov need not have gotten the idea from Kropotkin. In an important new book, Daniel P. Todes has established that “mutual aid” and similar ideas were quite common among Russian botanists, zoologists, and social thinkers during the late nineteenth and early twentieth centuries.³²

This characteristic Russian attitude helps us to understand some of the differences between Bogdanov’s Martian novels and those of his contemporaries. One of the most popular of these was *A Princess of Mars* (1912) by the American author Edgar Rice Burroughs. The physical Mars he portrayed, like the one depicted by Bogdanov, fits the standard fin de siècle format—it is smaller, older, colder, poorer in resources, and short on water. On Burroughs’s Mars, however, these harsh conditions produce societies truly suited to a planet named for the “God of War”: An intensification of the Darwinian struggle for existence has led to a diverse array of ferocious humanoids, resulting in a planet of brutality, barbarism, and cruelty where few offspring manage to survive their first minutes. The very same harsh physical conditions that lead to disunity, intraspecific struggle, and barbarism on Burroughs’s Mars, then, produce on Bogdanov’s the very opposite: unity, cooperation, and humane planetary socialism.

For Bogdanov, the specific environmental threat that finally brings Martian socialism into being is the shortage of water. *Engineer Menni* takes place at a time when “there was as yet no system of canals, and the whole interior of the continent, about three-fifths of its surface, was devoid of water.”³³ This threat leads the hero to conceive “the Great Project”—building the canals—which explains, in turn, why a novel con-

29. *Ibid.*, 148–149.

30. *Ibid.*, 148.

31. Peter Kropotkin, *Mutual Aid: A Factor in Evolution* (London, 1902; New York: McClure Phillips, 1902).

32. Daniel P. Todes, *Darwin without Malthus: The Struggle for Existence in Russian Evolutionary Thought* (New York: Oxford, 1989). See also his article, “Darwin’s Malthusian Metaphor and Russian Evolutionary Thought, 1859–1917,” *Isis* 78, no. 294 (December 1987): 537–551 and the column that it inspired by Stephen Jay Gould, “Kropotkin Was No Crackpot,” *Natural History* 97, no. 7 (July 1988): 12–21.

33. *Red Star*, 151.

cerned with the historical emergence of Martian socialism centers on three generations of canal-builders.

At the time Bogdanov wrote, there was great public excitement about Mars because that planet's unusually close approach offered the opportunity to observe on its surface what the Italian astronomer Giovanni Schiaparelli had described in 1877 as mountains, seas, and an intricate network of channels—"canali," a word mistranslated into many languages as "canals." Bogdanov knew Schiaparelli's Greek and Latin terminology for Martian surface features and even mentioned him in the foreword. Did Bogdanov also know, perchance, of Schiaparelli's much discussed article "Life on the Planet Mars," published in Italian (1895) and French (1898), where he had presented these *canali* as evidence of a Fourierist phalanstery? On Mars, Schiaparelli had written, "the institution of collective socialism ought indeed result from a parallel community of interests and of a universal solidarity of citizens" and, as a result, "international conflicts and wars are unknown" there because "all the intellectual efforts which, among the insane inhabitants of a neighboring world are consumed in mutually destroying each other, are [on Mars] unanimously directed against the common enemy, the difficulty which penurious nature opposes at each step."³⁴ In any case, this planet-wide network of "canals," which suggested an advanced civilization to many of his contemporaries, became for Bogdanov the great planetary project for survival whose construction stimulated the birth of his utopian socialist society.

In Bogdanov's novels, then, the classic characteristics distinguishing Mars from Earth are the very conditions that led to the essential character of ideal Martian socialism. Although the novels express uncertainty about whether socialism will ever come about on Earth, they are clear on one point: if and when it does come about, it will not be like Martian socialism. This is an important point, for it ultimately governs the way we interpret Bogdanov's novels. We have already twice noted his remarkable prediction that the first socialist state on Earth will be barbarous and chauvinistic, "an island in a hostile sea." Given the humane and harmonious character of the development of Martian socialism, how can this be? It cannot—if Mars is a model for the Terran future. Only if the social histories on Mars and Earth are significantly different does Bogdanov's prediction about Earth make sense. But how, then, can we read Bogdanov's other descriptions of Martian life as relevant to the Earth?

In particular, did Bogdanov really anticipate, as has been claimed, that even a mature socialist society on Earth would have to cope with shortages of water, energy, and other resources? Once again, let us turn to his text. In both novels, Bogdanov repeatedly notes that, in contrast to Mars, Earth is much richer in resources. Furthermore, it gets eight times the solar energy—indeed, we might conclude from the speeches of Sterni and Netti that, if anything, the Earth has too much energy for its own good. And what of water? The reason Mars now faces a water shortage, according to Bogdanov, is that "the astronomical age of Mars is twice that of Earth, and for that reason there is relatively little water on the planet" because "in the course of millions of years" it has been absorbed into the planet's crust.³⁵ By implication, then, Earth will not face a similar shortage for many millions of years, if ever. Clearly, then, Bogdanov does not conceive these shortages as problems that mature socialism will face on Earth. To the contrary, he sees them as some of the harsh, unifying, specifically Martian conditions that

34. Crowe, *The Extraterrestrial Life Debate*, 515. On Schiaparelli, see also Giorgio Abetti, "Giovanni Virginio Schiaparelli" in *Dictionary of Scientific Biography*, vol. 12 (1975), 159–162.

35. *Red Star*, 146.

helped bring ideal socialism into being! And if Martian socialism is not to be our own, then Bogdanov's depiction of the difficulties of the specifically Martian socialist life does not speak to Earthly futures.

We know that Lenin did not like Bogdanov's novels. Indeed, in a 1913 letter to Maksim Gorkii, he described *Engineer Menni* as "another case of Machism and idealism, but obscured so that neither the workers nor the silly editors at *Pravda* understood it."³⁶ This reaction should not surprise us. What was there in the novels for Lenin to like? Bogdanov had clearly argued that the very character of natural conditions on the planet Earth precluded the development of ideal socialism. Indeed, he had openly predicted that the first socialist state on Earth would be isolated, surrounded, barbarous, and chauvinistic. In retrospect, he may have been right. But to a contemporary revolutionary leader such as Lenin, who was trying to orchestrate the revolution and to persuade others of its necessity and virtue, Bogdanov's message could hardly have seemed helpful.

There is a central motif in *Red Star* that makes its author seem distinctly unmodern. In the passages from Netti quoted above, the Darwinian struggle for existence has been "vitalized" by an almost romantic vision of the unity and energy of "Life." Surely this did not come from Wells; indeed, Netti's sentiments are perilously close to the sort that Wells ridicules in his novels. This aspect of Bogdanov's works has often puzzled his commentators and is sometimes treated as a curiosity largely irrelevant to the rest of his thought. Such a viewpoint is difficult to sustain, however, because Bogdanov's views of life, energy, and blood form a motif central to his intellectual career. Nor is there much puzzle about where such ideas might have come from; to his turn-of-the-century readers, they must have seemed utterly familiar.

Any well-educated contemporary would probably have associated Bogdanov's views of "Life" with the name of Ernst Haeckel (1834–1919). Today, Haeckel is remembered principally for his "biogenetic law," summarized in the familiar dictum "ontogeny recapitulates phylogeny"—the history of the individual repeats, in condensed form, the evolutionary history of the species. In his own day, however, Haeckel was equally renowned for his "Monist philosophy," which conceived of the animate and inanimate as part of a greater unity and of all living forms as genetically interrelated. Both biogenesis and monism found expression in his popular tomes, notably *The Natural History of Creation*, a mainstay of popular Darwinism that was published in eleven contemporary editions and translated into twelve European languages.³⁷ Equally influential was his popular Monist sermon, *The Riddle of the Universe*.³⁸ His romantic, stridently materialistic views on human origins created difficulties for the publication of Russian editions of his works.³⁹ Nonetheless, many pamphlets by Haeckel were published in Russian translation around the turn of the century and, after 1905, some of his books began to appear in Russian editions.⁴⁰

36. *Ibid.*, 14.

37. Ernst Haeckel, *Natürliche Schöpfungsgeschichte* (Berlin: Reimar, 1868). For the first English edition, see *The History of Creation*, trans. E. Ray Lankester, 2 vols. (New York: Appleton, 1876).

38. Ernst Haeckel, *Die Welträthsel: Gemeinverständliche Studien über monistische Philosophie* (Bonn, 1899).

39. See especially his *Anthropogenie*, 5th ed. (1st ed., 1874; Leipzig: Engelmann, 1903), published in English as *The Evolution of Man*, 5th ed. (London: Watts, 1907).

40. For example, see E. Gekkel', *Bor'ba za evoliutsionnuiu ideiu* (St. Petersburg, 1909), *Lektsii po estestvoznaniuu i filosofii* (St. Petersburg, 1913), and *Proiskhozhdenie cheloveka* (Petrograd, 1919).

At the time Bogdanov wrote, Haeckel's monist ideas were certainly well known to educated Russians—and Bolsheviks were no exception. In the final section of *Materialism and Empiriocriticism*, entitled "Ernst Haeckel and Ernst Mach," Lenin drew attention to *The Riddle of the Universe* by the "eminent scientist" Ernst Haeckel, noting:

The fact that the book was sold in *hundreds of thousands* of copies, that it was immediately translated into all languages and that it appeared in specially cheap editions, clearly demonstrates that the book "found its way to the people," that there are *masses* of readers whom Ernst Haeckel at once won over to his side.⁴¹

This passage was written in 1908—the year *Red Star* was published.

Did Bogdanov read the works of Haeckel? I know of no direct evidence that he did, but the indirect evidence is compelling. Consider Bogdanov's first philosophical trilogy, *Empiriomonism*. Most commentators have assumed that the monism in this work derived exclusively from the physical chemist Wilhelm Ostwald (1853–1932), who in turn relied on the ideas of Ernst Mach, a connection emphasized by Lenin and most subsequent commentators.⁴² In Ostwald's version of monistic nature philosophy, the universe is a manifestation of "Energie" in various forms. Bogdanov was familiar with Ostwald's monism, to be sure, but there is no reason to suppose that it was the sole source of his own. In the popular mind, monism was still most closely associated with Haeckel. It seems unlikely that Bogdanov, a physician, would be familiar with the ideas of the physical chemist Wilhelm Ostwald and not with those of the immensely popular biologist and anatomist Ernst Haeckel.

If there is uncertainty about the source of the monism in Bogdanov's first trilogy, there can be no escaping Haeckel's influence on the second, *Tektologiia* (1913–1917). In his mammoth classic *Generelle Morphologie* (1866), Haeckel had coined the word *Tectologie* from the Greek *tekton* (carpenter, builder) or *tektainein* (to build or frame) to name one of the two sciences that together comprise morphology: "Tectologie (oder Strukturlehre): Wissenschaft von der Zusammensetzung [*sic*] der Organismen aus organischen Individuen verschiedener Ordnung"; and "Promorphologie (oder Grundformenlehre): Wissenschaft von den äusseren Formen der organischen Individuen und deren stereometrischen Grundformen."⁴³ The eleventh chapter of the book's first volume listed sixty-four "tectological theses" under seven headings: fundamental structure, organic individuality, organic individuums, the interrelations of organic individuums, physiological individuality, tectological differentiation and centralization, and the relation between the parts and the whole.⁴⁴

Bogdanov undoubtedly got the word *tectology* from Haeckel. So far as I can determine, *tektologiia* was not even mentioned in contemporary Russian dictionaries and encyclopedias. Unlike the term *promorphology*, which dealt with the general laws of form and was apparently used somewhat more widely, *tectology* was a term used only in connection with Haeckel's discussion in the *Generelle Morphologie*.⁴⁵ Of course,

41. V. I. Lenin, *Collected Works*, 4th ed., vol. 14, 1908 (Moscow: Progress, 1968), 348.

42. *Ibid.*, 226–232 and 269–273, for example.

43. Ernst Haeckel, *Generelle Morphologie der Organismen*, two volumes published as one (Berlin: Georg Reimer, 1866) 1:30.

44. *Ibid.*, 364–374.

45. For example, in the ninth edition of *Encyclopedia Britannica*, P. Geddes used the term only in reference to Haeckel's division of morphology into "two sub-sciences,—the first purely structural, *tectology*, which regards the organism as composed of organic individuals of different orders; the second essentially stereometric, *promorphology*" (*Encyclopedia Britannica* [1883] 16:842, col. 1). By 1919, *tectology*

Bogdanov's work went well beyond that of Haeckel, seeking to generalize his morphological principles into a general theory of organizational structure, but in so doing Bogdanov drew heavily on Haeckel's analytical framework.

In basing his understanding of social structure on organic form, of course, Bogdanov was following a time-honored practice. Ever since the eighteenth century, social thinkers had commonly treated society as an "organism" and had based their theories on the latest currents in zoology; their principal differences lay in the model of the organism they used.⁴⁶ Bogdanov was one of many Russian social thinkers of his time who looked to the natural sciences for models in their "quest for a general science of society."⁴⁷ Nor was Bogdanov atypical in attempting to create a general organizational theory that applied to everything. Since the mid-nineteenth century, theories like those of Auguste Comte and Herbert Spencer, which encompassed the solar system, biology, society, history, and morality in a single theoretical framework, had been common coin. At the turn of the century—the age of Taylorism and scientific management, of physiological homeostasis and plant sociology, of railroads and electric light and power—it would have been difficult to find any area of activity or discourse where "systems thinking" was not making itself felt.

Another possible source of Bogdanov's view of "Life" was Henri Bergson (1859–1941), whose evolutionary philosophy was tremendously popular and influential among Russian and European intellectuals during the first decade of this century. According to Bergson, life and the universe were evolving toward ever higher stages of complexity, organization, and energy, with each new stage manifesting newly emergent properties. For him, the cause of this evolution was the *élan vital*, a vitalistic energy or impulse that expressed itself by organizing matter into higher and higher states of complexity and consciousness. His vitalistic, holistic, physiological, "energetic" view of evolution, sometimes termed *emergentism* or *Bergsonism*, was expressed in *L'évolution créatrice* (1907), one of the most popular books in Europe at the time Bogdanov wrote. The work was soon translated into both English and Russian and its ideas were well known to most young European intellectuals before World War I.⁴⁸

As a Marxist, Bogdanov might well have preferred to be seen as a follower of Haeckel rather than Bergson; his works are critical of vitalist trends in science and thought. Common to Haeckel's monism and Bergson's emergentism, however, was the view that "Life" was one, that it had a common nature and origin, that all humans were tied to the lowliest worm "by blood," and that "Life" was ever reaching higher levels of energy and organization with higher, newly emergent possibilities and problems. That such views could be shared by the materialist Haeckel, the vitalist Bergson, and the Bolshevik Bogdanov is testimony to the intellectual dialectics of the age: As diverse as contemporaries may have perceived their ideas to be, in retrospect those ideas appear to be mere variations on a theme that preoccupied a bygone time.

Something akin to a blend of monism and emergentism is also the central theme of Bogdanov's poem "A Martian Stranded on Earth," published as a supplement to a

had found its way into the ninth volume of the *New English Dictionary*, but only as a term coined by Haeckel.

46. See, for example, Herbert Spencer's essay "The Social Organism" in *Essays: Scientific, Political, and Speculative*, vol. 1 (London: William and Norgate, 1868).

47. See, for example, the illuminating discussion in Vucinich, *Social Thought in Tsarist Russia*, especially 206–230.

48. Henri Bergson, *Creative Evolution*, trans. Arthur Mitchell (New York: Henry Holt, 1911); and A. Bergson, *Tvorcheskaia evolutsiia* (St. Petersburg, 1914).

1924 edition of *Red Star*. The poem’s early stanzas reiterate the very same differences between Martians and Earthlings emphasized in the novels:

Yes, people—it may seem that the difference is small
Between them and my own Martian race,
But their hearts and their souls are not ours at all,
And I am no friend of their ways.

The harmony of life is outside their ken.
Though their souls swarm with hazy ideas,
The inherited past is the lord of these men;
It has ruled them for so many years. . . .

The difference in nature between them and me
Springs up, and I’m plunged in despair.⁴⁹

The stranded Martian finally becomes reconciled to his exile on Earth by taking a monist view of the unity of all life similar to that expressed in the novel by Netti:

But then I hear Science, whose voice sounds on high
From my home in the sky far away:
“They too are the children of almighty Life,
Your younger blood brothers are they. . . .”⁵⁰

First published four years before Bogdanov’s death, the poem encapsulates the essential perspectives and tensions of his intellectual life. The ideal, unified, harmonious society he envisioned as emerging from Martian conditions was utterly different from anything possible on Earth, the planet of energy, diversity, and struggle. This dialectical contradiction could be resolved only by the “science” that described the deeper unity: monism. Considering that Bogdanov was a physician turned philosopher, it should not surprise us that his works reflect the leading biological philosophies of his day.

The reference to “blood brothers” in this 1924 poem is especially suggestive, since Bogdanov may have intended it literally. In this context, we can see his late researches on transfusion as a natural outgrowth of his earlier thought. His 160-page book on the subject, published in 1927, is often taken as evidence that he had switched from philosophy to biomedical research. It may have met contemporary scientific standards, but this is not a scientific book about transfusion in today’s sense—it is not about blood chemistry, the ABO immune system, plasma or platelets, white or red cells. Rather, it is about rejuvenation—*omolozhenie*—a topic of major scientific and popular interest in Europe during the early decades of this century.

In the 1910s and 1920s, Russian investigators carefully monitored foreign research on rejuvenation and published numerous books, pamphlets, and anthologies on the subject, some of which are cited in Bogdanov’s work.⁵¹ Of course, such research took many forms, from Il’ia Mechnikov’s fascination with yogurt as an aid to longevity, to

49. *Red Star*, 237–238.

50. *Ibid.*, 238.

51. See, for example, *Smert' i bessmertie*, *Novye idei v biologii*, *Sbornik 3* (St. Petersburg: Obrazovanie, 1913); N. K. Kol'tsov, *Omolozhenie organizma po metodu Shteinakh* (Petrograd: Vremia, 1922); *Omolozhenie: Sbornik statei*, vol. 1 (Moscow and Petrograd: Gosizdat, 1923) and vol. 2 (Moscow and Petrograd: Gosizdat, 1924); and *Problemy starosti i omolozhenie* (Moscow and Petrograd: Gosizdat, 1923).

investigations of the putatively rejuvenating effects of transplanted monkey testicles.⁵² Unlike many of his contemporaries, Bogdanov eschews the guts and glands for the blood, a vital fluid whose transfusion, he believed, could rejuvenate the recipient. The originality of Bogdanov's approach, then, lay in the way he sought to link the rejuvenation problem with unrelated contemporary work on blood transfusion. In light of Bogdanov's fascination with the ideas of Haeckel, this link makes sense. What greater embodiment of life's vital energy than blood? What greater demonstration of the unity of life than the vital transfusion of blood from one to another?

The relation of Bogdanov's 1927 book to his earlier interests is revealed by its title: *Bor'ba za zhiznesposobnost'*.⁵³ Used to translate the Darwinian phrase "struggle for existence," *bor'ba* was also the word used repeatedly in Bogdanov's novels to describe the struggle of the Martians against their hostile planetary environment. Like that earlier struggle, which brought about Martian socialism, this "struggle for vitality" was envisioned by Bogdanov, not as intraspecific human competition, but rather as a cooperative effort of human life against the harsh forces of nature, an effort in which humans would share their very blood in their common struggle against the forces of decay, degeneration, and death.

Red Star is explicit about this. In a scene set at a hospital, Netti explains that Martians stay young because of "mutual blood transfusions between human beings, whereby each individual receives from the other a number of elements which can raise his life expectancy." When asked why the efficacy of this technique has not been recognized on Earth, she suggests that "perhaps it is merely due to your predominantly individualistic psychology, which isolates people from each other so completely that the thought of fusing them is almost incomprehensible to your scientists." By contrast, she notes, "Quite in keeping with the nature of our entire system, our regular comradesly exchanges of life extend beyond the ideological dimension into the physiological one."⁵⁴

In this context, Bogdanov's own death in 1928 could hardly have been more fitting, for it drew together the threads of his intellectual life, and it was, as best we can tell, a death he chose. He died at his own Institute of Blood Transfusion during an "experiment" in which he completely exchanged his own blood with that of a certain Koldomasov, a student suffering from both malaria and tuberculosis. According to his son, Bogdanov knew the experiment would kill him. The date was 7 April—the day after Stalin had called the Party Central Committee into special session to deal with the Shakhty "conspiracy" of the technocrats, thus initiating the first in a series of Stalinist purge trials that would call to mind Bogdanov's 1908 prediction.⁵⁵ As sad as this turn of events must have been to Bogdanov, it must also have confirmed for him that he had been right all along: the ideal, "Martian" socialist vision would not come to pass on

52. See, for example, Élie Mechnikoff, *Études sur la nature humaine*, 2nd ed. (Paris: Masson, 1904), *The Prolongation of Life* (New York: G. P. Putnam's Sons, 1908), and *Étudy o prirode cheloveka*, 5th ed. (Moscow: Nauchnoe slovo, 1917). Mechnikoff regarded the "normal" human life-span as roughly 100 years to 120 years—the very same figure subsequently suggested by Bogdanov. For an example of the contemporary popularity of monkey gland therapy, note the description of Dr. Penberthy in Dorothy L. Sayers's well-known mystery, *The Unpleasantness at the Bellona Club* (London: Victor Gollancz, 1921).

53. Aleksandr Bogdanov, *Bor'ba za zhiznesposobnost'*, Institut perelivaniia krovi (Moscow: Novaia Moskva, 1927). *Zhiznesposobnost'* can be translated as "viability," "vital capacity," or "life capacity," but in context, "vitality" best captures Bogdanov's meaning.

54. *Red Star*, 85–86.

55. On the antitechnocratic character of the Shakhty and Industrial Party trials, see the excellent discussion in Kendall E. Bailes, *Technology and Society under Lenin and Stalin* (Princeton, N.J.: Princeton University Press, 1978).

Earth. As Graham sagely notes, the “Martian Stranded on Earth” in Bogdanov’s poem was Bogdanov himself.⁵⁶

Shortly after Bogdanov’s death, as he might well have anticipated, the Russian history from which he felt so profoundly alienated left him and his ideas behind. Now, sixty years later, they are being rediscovered, and modern scholars are busy excavating his legacy. In so doing, we would be wise to approach his writings in an archaeological spirit. When all is said and done, Bogdanov was neither a postindustrial thinker nor a Martian stranded on Earth, but a Russian *intelligent* of the late tsarist period stranded in the postwar world. What separates us from *Red Star* is, simply, most of the twentieth century.

Set not in our context but in his own, Bogdanov seems rather less prescient and original than before, but his thought emerges as more unified and coherent. His novels remain as interesting as ever, of course, but for different reasons: not because he was a deeply original thinker, but precisely because he was *not* a deeply original thinker—because the novels are, as *Russkoe Bogatstvo* noted, “trendy” and “derivative.” Bogdanov’s originality, such as it was, lay in the unique ways he navigated the flood of ideas washing his intellectual generation—mechanism, vitalism, materialism, organicism, energeticism, emergentism, and monism, Darwinism, Haeckelism, Bergsonism, Machism, Marxism, Bolshevism, Taylorism, Wellsian futurism. Each left its mark on what would later be called “Bogdanovism.”⁵⁷

For all their many literary flaws, *Red Star* and *Engineer Menni* give the modern reader an extended glimpse into the mindset of a turn-of-the-century intellectual, a member of one of the more interesting transitional generations in history, a man deeply engaged with the intellectual fashions of his day. To read Bogdanov is to immerse oneself in “the stormy but beautiful ocean” of ideas out of which the intellectual history of our century emerged. Alas, the novels of this promiscuous intellectual dilettante can tell us little about our “postindustrial” future, but they can tell us much about that future’s past.

56. *Red Star*, 251.

57. See, for example, Lecourt’s “Bogdanov, Mirror of the Soviet Intelligentsia,” which concludes with a section entitled “Bogdanovism in Soviet Ideology.”