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Book Review

Loren Graham, *Lonely Ideas: Can Russia Compete?* Cambridge, MA: MIT Press, 2013.

Reviewed by James R. Russell

Russian scientists and inventors have excelled in every field of technology for nearly two centuries, yet in almost every one except perhaps space science and armaments, Russian research, development, and manufacture lag far behind the rest of the industrialized world. This mixture of visionary creative brilliance and utter impracticality is a long-recognized Russian national trait. In the 19th century Ivan Goncharov in his novel *Oblomov* depicts a gentle, intelligent nobleman full of ideas: but the very notion of getting up and working to put them into practice is so exhausting that he spends most of his life on his comfy sofa, served by his grumbling, lazy, faithful servant Zakhar. His go-getter German friend from childhood leads a vigorous and successful life.

In a Soviet era adaptation of the novel, when Oblomov dies, Stolz and his wife pause, fall silent, the camera pans over the vast, soft Russian countryside, an Orthodox dirge swells, and for the n -th time the viewer is blinded by a spasm of tears. “*Russia cannot be understood by the mind,/ No common yardstick measures her./ Her stature is of a special sort:/ Russia demands, quite simply, faith,*” runs the 19th-century poet Fyodor Tyutchev’s famous quatrain. Subsequent folk bards have added in scabrous tones that it is high time Russia became comprehensible, but these sentimental and mystical self-justifications that elevate incompetence to the status of the sacred are deeply ingrained in the collective neurosis.

Professor Loren Graham, the foremost living historian of Russian science, and a lucid writer whose work is mercifully shorn of what he once called in conversation “academese”, has demystified this conundrum in his book, a concise masterpiece of meticulous scholarship. Unlike the little Oblomovs who populate Ivy League Slavic departments, Graham has experience in the real world of business and industry as a working engineer. But he is also a humanist, and brings to his research the special virtue of a deep understanding of Russian culture and its interaction with science and economics. Thus, in *Naming Infinity* (Cambridge, MA: Harvard University Press, 2009) co-authored with the mathematician Jean-Michel Cantor, Graham explored the interaction between mathematicians working on set theory at Moscow University and practitioners of a banned Orthodox mystical practice called *Imyaslavie*, “Glorification of the (Divine) Name”, who recited the Jesus Prayer (which an American reader will remember from J.D. Salinger’s *Franny and Zooey*) and held that any form of the name of God in any language is the very Name itself. Graham brings this interdisciplinary insight to the problem of science and technology in Russia. It is a critical issue, and the book under review is the focus of attentive study in Russia now.

Soviet propaganda claimed Russian priority in the invention of the radio, the light bulb, and baseball. Graham shows that they were right, at least about the first two.

Russians in the 19th and 20th centuries were also pioneer inventors in the railroad and airplane industries, and in the fields of semiconductors, lasers, biotechnology, and computers. Sometimes they predated the Edisons and Marconis; and other times their inventions were parallel, simultaneous. Yet one never encounters products with the label “Made in Russia”. The reason, Graham demonstrates, is that for technological innovation to work, a society requires a social infrastructure that must include the basic elements of democratic freedom. These are: social mobility, a rising middle class, and protection of companies, patents, and entrepreneurs by the law. For these aspects to flourish, society must respect human rights, including the sanctity of property and person; and the individual profit motive has, accordingly, to be allowed and respected as legitimate. Neither the Tsars, nor the Communists, nor the present regime promulgated any of these political and social reforms. Society was governed by fiat from the top down; wealth was (and is) monopolized by a powerful oligarchy. So Russian inventors most often were unable to retain title to their inventions, to derive profit from them, and to work with industry to manufacture them on a mass scale. They often emigrated or fled, and some who did not ended their lives in prison. And inventions that might benefit or empower the average person and thereby enable greater individual freedom threatened the power structure.

Sikorsky invented a passenger plane, and Nicholas II duly inspected it. But the Tsarist autocracy, which had sold off Russian holdings in Sonoma County a few decades before because the brilliant bureaucrats in St. Petersburg were certain nothing would ever come of California, were of the opinion that commercial air travel was a pipe dream. And there was no independent company in the country to evaluate the invention and perhaps decide otherwise. So Sikorsky moved to Connecticut and manufactured his helicopters there, instead, and a happy Russian community flourishes there still (you can see the golden onion domes from the road as you drive past Hartford). The book is full of good and telling anecdotes that illustrate Graham’s points. Yablochkov’s bulbs gave Paris its sobriquet, the City of Lights, yet he is now forgotten. Russia and America both developed steel mills in the far north, far from coal supplies and in an inhospitable climate: the American industry learned from experience and moved south, but the Russians stayed put, proving their point and losing money. Russians invented their own computers and are still fine software developers, but the Soviet state, which did not like personal typewriters much and prohibited private ownership of photocopying machines, did not allow computers outside a very limited number of concerns— and there was no business sector worthy of the name. Where the Russians succeed, it is in enterprises of great symbolic importance or immediate need requiring a huge, directed collective effort: the space program, arms manufacturing, hydroelectric dams, etc. Yet even the Kalashnikov rifle (whose inventor has just passed away at age 94, as I write these lines), the AK-47— the world’s most popular and durable automatic weapon— was not manufactured under patent and has benefited from scant research and development in Russia itself. So most AKs are manufactured elsewhere; and the Russian-made guns rely on a niche market. I have written in this journal about motorcycles (review of Steven L. Thompson, *Bodies in Motion: Evolution and Experience in Motorcycling, Technology and Society* 30.1, Spring 2011, pp. 8-10); and can mention parenthetically that the manufacturers in Izhevsk of the only major Russian motorcycle, the Ural— a tough, simple knockoff of a 1930s BMW—

hang on by a thread to a niche market, again, since they produce most of their bikes with sidecars— a comfortable and pleasantly old-fashioned alternative to riding pillion, squashed behind the driver. Ural could do better and interesting things with their bikes, but they don't. I've met two-man Aussie companies making nifty helmet locks, a little band of Jewish Russians from Massachusetts who have invented a new kind of headlight, a small operation from the Southwest bottling an anti-fog spray for visors, all with booths at the International Motorcycle Show in New York, all smiling, all ready for business. But the scowling boyars of Izhevsk are not there, this year or any year.

Graham makes another critical point. Many Russian inventors and scientists, now as in the past, have contempt for practical business sense, and the desire for profit and personal advancement in industry. These qualities are seen as vulgar and unworthy of true intellectuals. So, it is not just an oppressive feudal state that retards Russian industry, it is the mindset of many of the innovators themselves, at least the ones who do not leave the country and change their attitudes, like Sikorsky. One observes that such views would be shared, also, by craftsmen, who are masters of every aspect and phase of the manufacture (the word originally meant "making by hand") of an object, be it a painting or a gun. With the assembly line and mechanical reproduction, the growth of bourgeois capitalism and the destruction of the stratified, aristocratic society of old Europe, artists and craftsmen found themselves without a place. In a review of Thomas Mann's *Tonio Kröger and Other Stories* (*New York Review of Books*, 3 September 1970), the poet W.H. Auden focussed on the way Mann's characters embody the social alienation and distress these changes caused in Germany in the industrial age. Fascism was soon to employ its atavistic myths of race, nobility, and soil to enlist the disaffected. Communism attracted the disaffected Russian industrial worker, both enlisting futurism to endow modern technology with glamour and appealing to the old Russian virtue of *sobornost'*, "togetherness" (a word that has the added, mystical echo of *sobor*, "cathedral", within it). And the Communists first ignored the majority of the population— the agricultural peasantry— and then returned them to the serfdom of collectivization, employing methods as ruthless as mass starvation in the 1930s in the Ukraine (the terrible *holodomor*, remembered today as a case of genocide). The archaic, craftsman-like world view of many Russian intellectuals is, then, not the result of suppression by the state from above— a kind of go-slow, retreating sabotage against the tyranny of the collective and the rulers and an assertion of individual dignity and integrity— but a survival, also, of the same *pre-modern* concept of society and economy that affects the structure of the state itself.

Professor Graham and I are friends and colleagues and Loren gave a book talk at a dinner recently, followed by discussion. I do not think I am mistaken in the impression that most of those in attendance were amused, in a condescending way, by the predicament he outlined: when, their chuckles seemed to say, will those backward, exasperating, lovable Russians grow up and be more like us, like American capitalist entrepreneurs (not that a man or woman in the room could fairly claim membership in that company). It seemed to me it was time to offer a contrary view. So let us consider this. Russia is the most northerly of all major countries, with harsh climactic conditions prevailing over much of its territory. (Canada is up there, too; but most Canadians live

within shouting distance of their southern border.) Russia is fairly flat, rich and easily invaded: in the 13th century it absorbed the full force of the Tataro-Mongol invasions, which decimated the eastern parts of the civilized world with the force of a nuclear attack. Napoleon's campaign in 1812, which reduced Moscow to ashes, was a pinprick by comparison; and the assault of the Grande Armée was nothing to the onslaught of the Nazis and their allies on 22 June 1941. A society dependent on a spider web of sophisticated technology, and without strong central authority might not be able to withstand such bad weather and worse neighbors. (The German Panzers needed good mechanics and much of their equipment broke down in the cold or couldn't move in the mud. But it is not too much of an exaggeration to say you could repair Soviet T-34 tanks with a hammer.) Slow, steady innovation rather than rapid change would be more conducive to the survival of Russia. Even what appears to be radical revolution in Russian history has some elements of reaction. Accordingly the center of power returned in 1917 from Peter the Great's hastily built capital, his "window on the west", to ancient Moscow. And after the seventy-year-long Communist experiment with atheism, multiculturalism, and the dictatorship of the proletariat, Russia under Putin has in some measure embraced the early 19th-century statist model of Tsar Nicholas I of autocracy, Orthodoxy, and nationality. The attendant problems that enlightened people justly lament and seek to remedy, and that Graham addresses in his study, have the quality of a vicious cycle, to be sure, and they can be crippling; but they may also be, in some measure, aspects of a durable, viable adaptation to a challenging environment, one whose conditions are not always adequately appreciated outside the country. One is not arguing here for Russian exceptionalism, the *russkii put'* "Russian way" of reactionary philosophers and theologians, only for a more nuanced view. Perhaps an experiment in imagination can help.

Russian literature is unsurpassed and universally appreciated; but its important contributions in the genre of science fiction are less well known. This reviewer was graduated from the Bronx High School of Science and the first friends I made as a teenager visiting Leningrad were kids from a specialized high school for mathematics in Moscow. Isaac Asimov, a Russian-American, was our common language; and science fiction was then the playground and garden of our minds. (This has probably changed in the digital age.) So as I considered whether the Russian mode of living might be environmental adaptation rather than the repeated failures of a mental patient applying the same wrong solution over and over to a problem, I was reminded of a work of science fiction. Ursula Le Guin, the daughter of two prominent anthropologists, evokes in *The Left Hand of Darkness* a planet whose name, Gethen, means "Winter". Its people are conservative in their customs, and strongly wedded to their ancient languages and folklore. They adapt new technologies only gradually, necessarily valuing survival over speed. The people move slowly but deliberately, wrapped in heavy furs, driving big trucks on bad roads, and tell jokes about fish. There are two states: one is a monarchy with an inner-directed, mystical religion; the other, an oligarchy espousing a messianic faith. The people of the planet, who are all ambisexual (the composer Tchaikovsky, the poet Esenin, and the dancer Nureyev would approve but the *Duma*— the Russian parliament— does not) are imaginative and emotional, capable of heartbreakingly deep

affections. It actually took more than a minute or two— one’s mind works slowly— to understand why one felt at home on Gethen.

Perhaps, then, one requires not so much blind faith as a particular twist of the mind to comprehend planet Russia. Yet Russia is of course not a planet, but one country among many others on Terra. And this gave rise to another thought at Loren Graham’s book talk. Academics, I find, pay lip service to global cultural diversity but seldom really accept it: the American corporate, capitalist model is seen as a universal goal that other societies regrettably fall short of or improperly deviate from. It can fairly be argued—and Loren makes the point in conversation— that the “American way” of free enterprise, human rights, and the rule of law is really the way of modernity, and some non-Western societies such as India, South Korea, and Japan have embraced most of it. But it is still not the only way, and other ways are not necessarily reactions against it, just *other ways*. If one asks, *Can Russia compete?* one is entitled also to wonder, *Can America cooperate?* Are ambition and the profit motive, the cutthroat arrogance of the corporate executive, the model of progress, or even of a meaningful life? The exaltation of privacy, private property, and of the merit of individual achievement, without the leaven of tradition and togetherness (Russian *sobornost*’), brings not only to prosperity—and even then, not always to a balanced society with a prosperous middle class— but to loneliness, selfishness, the death of compassion. Can the earth afford very much more national and commercial *competition*, and where it inevitably leads— to plunder, environmental devastation, and war? The gated community is not the answer to the collective farm. Oblomov and Stolz had better find a middle way.

James R. Russell is the Mashtots Professor of Armenian Studies in the Department of Near Eastern Languages and Civilizations, a faculty member of Folklore and Mythology program at Harvard University, and a member of the executive committee of the university’s Davis Center for Russian and Eurasian Studies. He teaches also Ancient Iranian studies and Russian literature, studies the culture and writing system of Rapa Nui (Easter Island) and is a painter, guitarist, and motorcyclist. He has lived and taught in India, Israel, Russia, and other countries.