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Paul Josephson, *Nuclear Russia: The Atom in Russian Politics and Culture*. London: Bloomsbury, 2022.

By Egle Rindzeviciute

Paul Josephson is probably the most prominent historian of Soviet nuclear power. He began his career as a historian of Soviet physics and, since the late 1980s, covered the Chernobyl disaster and developed a wider critical agenda to criticise the negative impacts of large scale technologies in the global North and South. His *Red Atom: Russia's Nuclear Power Program From Stalin To Today*, published in 2000, together with the articles on cultural and symbolic meanings of the nuclear industry, inspired generations of young scholars. Back in the 1990s, Josephson criticised Western scholars and aid agencies for focusing excessively on post-Soviet Russia and forgetting Ukraine. Josephson wrote about the Ukrainian science seeking to make the contribution of Ukrainian scholars to what were presented as "Soviet" scientific achievements clear and visible.

The newly published *Nuclear Russia: The Atom in Russian Politics and Culture* is not, however, merely an updated version of *Red Atom*, but rather an entirely new attempt to rethink the established narratives that have shaped the historiography of Soviet nuclear power. *Nuclear Russia*, at the same time, presents the highly complex development of the Soviet nuclearity in a readable and accessible way, in which Josephson excels. But *Nuclear Russia* came out on 9 March 2022, two weeks after Russia invaded Ukraine. The tragic war shocked the global community of historians of Soviet science, many of whom began to scrutinise the persistent habit of conflating the contributions of scientists from different republics into the monolith of "Soviet science," where the label of "Sovietness" masked the colonial Russification through science and technology and rendering the contributions of non-Russian scholars invisible.

Josephson's history of "Nuclear Russia" is, in effect, a transnational history of Russian and Ukrainian nuclear power. Reading Josephson's *Nuclear Russia* I could see the merits of a transnational take on Soviet science, although still there is a risk of falling into a trap of methodological nationalism. This said, there is a lot of sense to distinguish the contribution of Soviet Ukrainian scientists as a transnational input into Soviet science. After all, Ukraine ranked second in terms of scientific output in the Soviet Union. In his *Nuclear Russia*, Josephson does not mince his words criticising Kremlin's exploitation of Ukraine. He details clearly just how central Ukrainian scientific institutions were for the Soviet nuclear program; the first chapter, "Nuclear Bolshevism," outlines the destruction of the Kharkiv physicist community under Nazis, while the following chapter, "Nuclear Defense," narrates the development of the Soviet atomic problem emphasising the role of the Ukrainian scientists and contesting the narrative that the first Soviet A-bomb was merely a copy of the American device.

The book is organised into thematic chapters which mainly follow a chronological order. *Nuclear Russia* starts with the Bolshevik nuclear physics and ends with a commentary on the globally oriented Rosatom corporation. *Nuclear Russia* tracks the intertwining the trajectories of the military and civic applications of the atom from Stalin to Putin. Josephson inserts the history of nuclear technoscience in the political, economic and institutional contexts, demonstrating the many ways in which the Soviet system failed absurdly, catastrophically and stubbornly. The reader will easily notice that Josephson is hardly pro-nuclear. However, at the same time Josephson is highly sensitive to the social and cultural significance of nuclear power in the Ukrainian and Russian societies and is sympathetic with progressive reformers of the nuclear industry and defence. Josephson's *Nuclear Russia* is an excellent short and engaging introduction into the politics of the nuclear technology. Its focus combines an analysis of the technological development of nuclear power and nuclear weapons as well as on the arms control movement to reduce nuclear weapons. Inevitably, selections had to be

made: for instance, the reader will not find much about the Soviet nuclear strategic thinking or about the nuclear medicine and the radioactive isotope applications. Josephson's argument is at its strongest where he shows the environmental cost of the nuclearization of the Soviet Union and contrasts the many social and economic costs that tend to be unaccounted for by the promoters of nuclear power. The last two chapters, "Nuclear Disintegration" and "Nuclear Renaissance" are particularly interesting as they show how the history of the Soviet nuclear power shapes the nuclear complex of the twenty-first century's Russia. As Josephson put it, reflecting on the Kursk submarine disaster of 2000, "Putin will not make this mistake of being distant from the atom – or accidents - again" (p. 140). Josephson shows that both the Russian environment and its political imagination are profoundly nuclearized, the result of about 100 years of "unwavering political, economic and ideological support of the atom and neutron" (p. 148). The key difference between the Soviet nuclear Russia and Putin's nuclear Russia, according to Josephson, is that Putin has transformed Russia into an outwardly aggressive nuclear power. *Nuclear Russia* narrates this path of transformation in an engaging way, indicating the relevance of the nuclear technology for different spheres of societal life, culture and politics. *Nuclear Russia* will be an essential reading for undergraduate and postgraduate courses as well as for all those interested in the region. Hopefully, we will see Josephson's *Nuclear Ukraine* coming out soon too.