Environment. The country of mountains of black ash

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The power plant Ignalina in Lithuania. A majority of Lithuanians said yes in a referendum in mid-October to the question of whether to keep Ignalina in operation, in opposition to an EU order.

Jane Dawson
Eco-Nationalism: Anti-Nuclear Activism and National Identity in Russia, Lithuania and Ukraine.

Duke University Press, 221 pages.

Rurik Holmberg
Survival of the Unfit: Path Dependence and the Estonian Oil Shale Industry.

Linköping University, 345 pages.

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THERE ARE MANY theories about why the Soviet Union dissolved in 1991. An interesting, but often neglected aspect of the research is that the dramatic upheavals in the East occurred in parallel with the theretofore unanticipated impact of the European environmental movement – in both the East and West. The political situation faced by the environmental movement was, to be sure, radically different in the Soviet Union, but if we, for example, look at the independence movements of the three Baltic countries, it becomes clear that the independence movements there actually began as nothing other than environmental movements.

In Lithuania, the environmental group Zemyna played a key role in this regard. It was formed in late 1987 and had a very specific purpose: to stop Moscow's planned expansion of the Ignalina nuclear power plant (which had the same type of reactors as those used at Chernobyl). Zemyna pointed out that a meltdown at Ignalina could well make the whole of Lithuania uninhabitable for the foreseeable future, and that this would probably mean the end of Lithuania as a nation. Nuclear power thus became a natural issue for the Lithuanian people to rally around, and for many Lithuanians, Ignalina became a gateway to a new awareness of their own history and national heritage. When the popular front Sajudis was founded in 1988, many of its prominent figures came from Zemyna, whose activities came to be incorporated into the growing independence movement.

IN LATVIA, the national liberation movement grew in a similar manner because of protests against Moscow's plans to build a giant hydroelectric plant on the Daugava River. The Daugava is the mightiest river of Latvia and the Baltic states, and much of Latvian history and culture revolves around its waters. In the 1960s, Latvians were forced to witness how the legendary rock Staburags was flooded over with water when the river was dammed up for the construction of the large hydroelectric power plant, Plavina. In the late 1980s, Latvian environmental activists began trying to prevent a further exploitation of the river upstream that was being planned by Moscow. The whole matter grew rapidly into a national, Latvian concern, and the hydropower project in Daugava thereby came to play a significant role in the Latvian independence movement.

In Estonia, it was the hard, industrialized northeast of the country that came to symbolize Soviet oppression and thus offered a base for the independence movement to rally around. Estonians were fighting partly against the accelerated quarrying of phosphorite that the central government planned near the shore of the Gulf of Finland, and partly against plans to build a new gigantic thermal power plant based on the local energy resource, oil shale, a fossil fuel. During the Soviet years, the oil shale industry, which also included a large chemical industrial complex, had transformed the natural environment in northeastern Estonia beyond all recognition: in addition to massive open pit shale mines that dug deep wounds in the originally very scenic landscape, the burning and chemical processing of oil shale led to the creation of a large quantity of artificial mountains of black ash, some more than a hundred meters high, which rose up from the otherwise completely flat landscape. The oil shale industry poisoned the groundwater with phenols and heavy metals, while the power plants threw up huge quantities of sulfur. The air was difficult to breathe, cancer rates were high. Another aspect of the problem was that industrialization was accompanied by a massive immigration from other Soviet republics, so that Estonians in the region ended up as a clear minority. The oil shale industry symbolized thus both damage to the environment and demographic oppression.

PROTESTS AGAINST IGNALINA in Lithuania, hydropower in Latvia and oil shale mining in Estonia thus came to have great significance for the Baltic struggle for independence from the Soviet Union. But if we look more closely at what actually happened to the power plants and industries – which were monstrous from an environmentalist stand-

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point – that the Balts saw, twenty years ago, as odious expressions of Soviet occupation, we see something surprising: the plants in question have been anything but shut down. On the contrary, they have found strong support from the now autonomous governments and have continued to be expanded. It is only the Lithuanian nuclear power plant which is still threatened with closure – but it is now the Lithuanians themselves who are fighting to keep the nuclear power plant, while it is the EU that wants to close Ignalina for good.

Why the turnaround, one wonders? How can the perception of nuclear power, hydropower and the oil shale industry have been transformed so radically from national object of hate to guarded crown jewels?

A partial explanation is given by the American anthropologist Jane Dawson, who in the book *Eco-Nationalism: Anti-Nuclear Activism and National Identity in Russia, Lithuania, and Ukraine*, examines the emergence of the anti-nuclear movement in several countries, including Lithuania. Her conclusion, based on a large number of deep interviews, is that Lithuanians deliberately used environmental issues as a tool to stimulate people's engagement in the pursuit of national sovereignty. In reality, the environmental movement's leaders were never particularly interested in closing down Ignalina! The independence movement was simply dressed up as an environmental movement, something which, among other things, was designed to arouse sympathy in Western Europe.

Most Western European governments saw it as less politically risky to work for a cleaner environment in the Soviet Union than to expressly support the aspirations towards independence of the Soviet constituent republics. Even the Swedish government, under Ingvar Carlsson, was for a very long time quite skeptical of the idea of full independence of the Baltic republics from the Soviet Union, which Balts remember with bitterness even today. Sweden, however, happily supported the fight for a better environment on the other side of the Baltic Sea. One proposal put forward was, for example, that Sweden would lay a power cable across the Baltic Sea and export "clean" Swedish power (read: nuclear power) eastward, so that the environmentally hazardous Baltic power plants could be closed.

THIS IDEA, HOWEVER, never came to pass. For when the Balts finally achieved their national independence, the environmental movement weakened, notes Dawson. Its real purpose, to liberate the Baltic states from the Soviet occupation, had been achieved. Most people thought that it went without question that the large oil shale power plants in Estonia, the hydroelectric plants in Latvia, and the Ignalina nuclear power plant in Lithuania would provide their national owners with both energy and tremendous export income (through the sale of electricity to other countries). It would have been national economic suicide to refrain voluntarily from receiving such income. The environment was now a low priority.

The question of why the dirty Soviet power plants remain in the case of Estonia is addressed with more historical background by economist Rurik Holmberg in a new dissertation, *Survival of the Unfit: Path Dependence and the Estonian Oil Shale Industry*. In order to understand the relatively prosperous oil shale industry in Estonia, Holmberg thought it necessary to go back to its origins in the 1920s. It was then, after World War I, that it became quite clear that the land in northeast Estonia contained huge quantities of oil shale. The shale could be immediately burned and be of use for heating, but when heated, it also yielded oil, which was of great importance at a time when the combustion engine was rapidly gaining ground. Although producing shale oil was both expensive and dirty, the interwar period took shape internationally at a time marked by protectionism and a desire for self-sufficiency. This made oil shale an interesting prospect for the Estonians.

An initial success for the oil shale industry came when the Estonian state railways began powering its locomotives with oil shale in the 1920s. The real breakthrough came, however, only in the mid-1930s, when Estonia started exporting large amounts of shale oil to Nazi Germany. There, the Estonian oil was used as fuel in the rapidly growing Hitler war fleet. At the time of the outbreak of World War II in 1939, more than half of the Estonian shale oil production was for export to Germany. The booming demand of the Nazis stimulated the Estonian engineers to greatly expand production capacity and develop more effective methods for the processing of oil shale. These efforts, says Holmberg, proved fateful for Estonia, since the result was that Estonians had "locked themselves into" a kind of energy production based on oil shale – with all the environmental problems this has entailed.

AFTER THE INCORPORATION of Estonia into the Soviet Union in 1944, the Estonian engineers faced a new challenge: to provide the nearby metropolis of Leningrad with the gas from oil shale. The directives came from Stalin, but the Estonians were nonetheless quite pleased, since the initiative meant that their expertise would be utilized. The oil shale industry existed only in Estonia and nowhere else in the Soviet Union, and Estonian expertise with oil shale was superior to that possessed by the Russians. It was hoped that this superiority in competence would also lead to increased economic and political power for the republic vis-à-vis Moscow. In this context, objections based on environmental concerns remained ignored.

Only in the 1960s, when the oil shale began being fired in gigantic thermal power plants, did the Estonians begin to oppose further development. Oil shale mining now took on increasingly monstrous proportions, and the power plants in question were far too large for the Estonians' own needs. Approximately half of the electricity was exported to Russia and Latvia, while the environmental degradation remained in Estonia. The oil shale industry's ever-

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During the Soviet era, the opposition in the Baltic countries demonstrated against nuclear plants in their fight for national sovereignty.