THE RUSSIAN SMOKY HUT AND ITS PROBABLE HEALTH CONSEQUENCES

The smoky hut (kurnaia izba, chërnaia izba) was the home of most Russians until relatively recently. To conserve as much as 80 percent of their fuel, the Russians did not vent their stoves outside through a chimney, but through a smoke hole in the back of the stove directly into the room. Modern readers who have experience with a fireplace will understand what this is all about: without a "draw" provided by heat going out the chimney, a fireplace fire will not light and smoke will just go into the room; if the fire dies down sufficiently, it will also die and smoke will flood the room. The same principle worked in the Russian smoky hut: with no heat going out a chimney, all the smoke went into the room. The heating season was about six months per year. There were two kinds of smoky huts, those with a ceiling and those without a ceiling. In smoky huts with a ceiling (something that appeared toward the end of the eighteenth century among wealthier peasants), the smoke, gas, and fumes filled the hut right down to the floor. In smoky huts without a ceiling, over time a line became stained on the walls at the bottom of the smoke concentration because some of it rose to the area under the roof rather than being concentrated all the way between the ceiling and floor. The issue is what impact living in the smoky hut had on the general Russian population.

1. For the seasonality of firewood sales (and I would assume usage), see Richard Hellie, The Economy and Material Culture of Russia 1600–1725 (Chicago: Univ. of Chicago Press, 1999), fig. 4 on p. 117, where the N = 468. The biomedical literature stresses that damage caused by wood smoke is progressive, dependent on the length of exposure (K. Lal et al., "Histomorphological Changes in Lungs of Rats Following Exposure to Wood Smoke," Indian Journal of Experimental Biology 31 [1993]: 761–64). Lal et al. wrote in terms of 15, 30, and 45 days, not six months per year, year in and year out.

2. D. A. Baranov et al., “Pech’ russkaia,” in Russkaia izba. Illiustrirovannaia entsiklopediia (St. Petersburg: Iskusstvo, 1999), 48–54. We should bear in mind what many huts were like, in addition to the effluent of stoves: "They were very difficult to ventilate thanks to the absence of windows which would open. The earthen floor was extraordinarily unhygienic: the abundance of excrement everywhere was extraordinary." B. V. Vladykin, Materialy po istorii kholarnoi epidiemii 1892–93 gg. v predelakh Evropeiskoi Rossii (St. Petersburg: Tip. P. P. Solkin, 1899), 66. Recall that the Russian peasants kept their livestock, even their cows, in the house with them in winter.
This is a major political issue, although I did not know that when I began to examine the topic. Recently I received the ultra-nationalistic publication Moskovskii zhurnal with an article by V. E. Grushin on “The Russian Stove.” Making the point that the Russian stove has not changed much since the sixth century (before that time, what became “Rus’” was inhabited by Iranians, Finns, and Balts, who had other forms of heating), Grushin claims that it is an example of healthy Russian conservatism and that it is absolutely the opposite of West European Rationalism, “not at all a sign of poverty and backwardness.” This seems to be a manifestation of post-1991 anti-Sovietism: the Soviets alleged that Marxism was scientific and that the Soviet Union was rational; ergo: if one is anti-Soviet, one must be anti-scientific and anti-rational.

I might also mention that I already have been accused of a “bias” in my approach to this issue by Professor Dr. Valentina Iur’evna Smorgunova, Dean of the Faculty of the Social Sciences at the Herzen Pedagogical Institute in St. Petersburg. She told me in my office on Tuesday, March 21, 2000, that the smoke was beneficial for the Russian peasant, who was a very healthy person. The task of this article is to examine this issue further.

The first point to note is that it is alleged that smoky huts were free of crickets and cockroaches, and also mice, bedbugs, and flying/biting insects. I would assume that this was because the air was so toxic during the heating season that they could not survive. Considering that the cockroach is well known to be one of the most durable creatures which has ever inhabited this planet, one might fairly assume that whatever vented out of the Russian stove must have been a fairly lethal mixture if even cockroaches could not survive in it.

There were several varieties of Russian stove, but a basic structure was common to all of them. They were typically fairly large structures built by trained craftsmen out of first rocks/stone and mud, then bricks and mortar, which occupied a significant portion of the hut. At best they had perhaps three chambers through which the heat, gas, and smoke would pass with the aim of extracting most of the heat into the stone or bricks before it reached the smoke hole. The concept was that the room should be heated by radiation from the stone or bricks. Often the top was flat and the most respected members of the household (usually the parents/husband and wife/grandparents after the creation of the three-generational household in the 1680s, and probably before in the nuclear family as well) slept there. The other members of

4. L. V. Milov, Velikorusskiy pakhar’ i osobennosti rossiiskogo istoricheskogo protsesa (Moscow: Rosspen, 1998), 305. This volume has considerable additional information about the peasant hut and the stove.