



The Peculiarities and Paradoxes of Soviet Consumer Technology, and American Influences

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In this thoroughgoing account of Soviet consumer technologies like automobiles, televisions, toasters, electric guitars, and radios, Logan Nitzel explores the fascinating and often unexpected influence of Western consumerism on culture and industry within the USSR, stressing the enduring collision of communist ideology with private comfort and entertainment. This essay was written for History Seminar with Dr. James Finck.

DURING THE COLD WAR, the levels of technological innovation rose to heights never seen before in human history. The driving force behind these leaps and bounds into the limits of possibility was, in part, the animosity and fear bred between the NATO Coalition and the Warsaw Pact. During these times, the products available to the ordinary people of both nations rose to the heights of *Sputnik* and *Saturn* in terms of both variety and abundance. In the West, mass-production of nearly every conceivable good or commodity was in full swing following the Second World War. In the East, though, the perceived necessity to produce non-essential, and non-military goods was much lower, and at

points in the history of the Soviets was almost nonexistent. Indeed, Soviet technological advancement in terms of arms and armor was often on par with America and its allies, but its citizens suffered through low-grade technology that was often so obsolete as to be, in the best cases, useless, and in the worst cases, dangerous. While the Soviet Union innovated independently through novel avenues of research, America's influence fundamentally changed the production of Soviet home goods because their products were often identical, they often reverse-engineered our products, and their technology stagnated when their access to Western and American goods diminished or ceased. And so it was that, while proxy wars were being waged in the tense periphery of global tension, another battle was being fought in the hearths and homes of ordinary people: the fight for dominance in the consumer sector.

Whereas the post-war United States still lived under the promise of a “chicken in every pot, and a car in every driveway,” Soviet citizens were content with having a house and a pot to cook the chicken in; never mind the dream of being able to secure themselves one of a handful of highly sought-after automobiles produced by factories in the USSR. Cars, along with a myriad of other consumer products, were often in short supply. Indeed, it was sometimes the case that products were in such an abysmal shortage as to be unheard of by many Soviet *potrebiteli*, or consumers. It was not until very late in the lifetime of the Soviet Union that the American system of “abundance economy” was realized to be advantageous, as is depicted in their own writing. It was American pressure or influence that often drove Soviet innovation in home and consumer technologies. America had long been seen as the impediment to Soviet global economic and political domination, but frequently it was the United States who forced the Soviets to adapt, to stray further and further from their roots in controlled market economies and embrace systems of capitalism to increase the quality of life for their citizens. Examples of American technologies were purchased on the

market or imported for purposes of reverse-engineering for manufacture in the Soviet Union or its satellites. In many cases, too, Soviet agents would gain access to cutting-edge American technologies by more sinister means, a trend that had been in place since 1944, with the capture of a stricken American B-29 that had crash-landed in Siberia.¹

CARS AND CULTURE

DURING THE 1950s, nearly a decade after the first case of Soviet replication of American heavy machinery, the Soviet Union found itself in the peculiar situation of needing private, personal consumer transportation. As the Soviet Union had become less and less agricultural and more industrial, its citizens had begun to find themselves walking long distances to areas of cities and countryside not serviced by bus routes. Alternatively, they were required to operate under transportation deadlines incompatible with public transport schedules. The natural solution was to manufacture automobiles. Trucks and tractors were already a facet of the Soviet production arsenal, so cars should have been a simple matter of design and retooling. However, as stated by Dr. Lewis Siegelbaum, a Soviet automotive historian at Michigan State University, cars were considered items of “capitalistic” function: “It is a machine, by design, for private, personal business.”²

Their lack of alternative uses was also an issue. Trucks could carry large numbers of people and move freight. Cars, conversely, could only carry a small handful of people. (Towing was by and large unsustainable with small Soviet powerplants.) The function of trucks, ergo, was wholesomely communistic; the same truck could

¹ Yefim Gordon and Vladimir Rigmant, *Tupolev Tu-4: Soviet Superfortress* (Hinckley, Leicestershire: Midland Counties, 2002), 8-10.

² Lewis H. Siegelbaum, *Cars for Comrades: The Life of the Soviet Automobile* (Ithaca: Cornell University Press, 2011), 19.

carry workers, tow farm equipment, transport troops, and be converted into any number of niche specializations, from repair truck to field hospital. Cars, on the other hand, could carry a businessman across town or his family with their luggage. Business and recreation were two seldom-calculated motivations for industrial production in the USSR.³

Cars, before the Second World War in the Soviet Union, were considered remnants of the aristocracy: machines that served as large, expensive playthings, unfit for the proletariat of the many. Following the First World War, trucks were the focus of any automobile production going on in the fledgling Soviet factories. Trucks were useful; they were thought to “bring in the harvest, spread the word, and [transport officials].” Production of non-utility vehicles did not cease after the October Revolution, however. Instead, cars were “gutted,” any apparition of luxury being discarded in favor of cost and production efficiency. The resulting products were merely shells with internal engines (throwaways that couldn’t handle the pressure requirements necessary for freight trucks). Cars were “marketed” as a tool of defense. Combines and tractors, it was known, were useful implements of production, being the weapons of choice for hard farm work. A nation of literate automobile drivers, though, was a population that could be trained easily to understand the complexities of driving tanks, armored cars, and military trucks. And so, car production went on. The elite could secure automobiles under the guise of training themselves and their friends on the technicalities and nuances of automobile control. Several auto clubs, including those administered by *Spartakiad*, the USSR’s sports authority, were formed around Moscow to cater to these drivers and structure education in four-wheeled travel.⁴

It was not until after the cessation of hostilities at the end of the Second World War that sedans and coupes shared production lines

³ Ibid., 19-21.

⁴ Ibid., 210-211.

with half-ton trucks. American Lend-Lease equipment, including both improved Studebaker “Deuce-and-a-Half” trucks, which became much more sought-after than the ZIS-5 trucks, and Willys “Jeep” and “Beep” designs, were deconstructed and eventually reimagined as the GAZ-67, Russia’s “homebrewed jeep.” Guzzling gas at almost a gallon a mile and unreliable to the extent of being dangerous, these vehicles prompted many Soviet units to refuse resupply with anything but American Jeeps from Detroit.⁵

In the 1950s Soviet cars were seen, finally, as a necessary tool for continued economic expansion. Very different from the American “boats”, the overly large, fourteen-foot-long Cadillacs and Pontiacs that clogged U.S. interstate highways, Soviet post-war sedans were spartan in nature, taking functionality over form, though testimony by those lucky enough to drive them show a concise picture as to the lack of functionality. By far, the single most produced and most influential design was the first fully “Soviet” designed car, the Volga. Whereas the previous models, named the Moletolvet and the Pobeda, were carbon copies of Packard and Ford designs, respectively, Volgas were the amalgamation and synthesis of everything learned by state automobile engineers. Unhindered by brand models, concepts, and legal patents, the technicians at GAZ, the USSR’s state-owned automotive company, could select features and specifications from any American automobile on the market. The Volga, official numerical nomenclature GAZ-21, was produced well into the 21st century, with the last Volga rolling off the assembly lines in 2009.⁶

Parts for repair were often nonexistent during most of the Communist era of Russian history. Parts to build the automobiles outright were used almost as quickly as they could be produced, so parts for maintenance of already-constructed cars were practically a pipedream for many broke-down Soviet motorists. Even if a part

⁵ Ibid., 26, 61.

⁶ Ibid., 62-77.

could be procured from a factory or one of several “dealership”-style buildings found across the country, many Soviet citizens were not well-versed in automobile repair, so depositing the broken automobile with an auto mechanic was often necessary. These individuals, specializing in car, truck, and tractor repair, were themselves in short supply across the country. Self-maintenance, though, was sometimes discouraged to maintain the relevance and necessity of mechanics. The right to a job was, naturally, a highly communistic principle, and denying a fellow member of the proletariat the right to commit to his craft was frowned upon.⁷

This fixation, though, on acquiring and obtaining replacement parts led to the rise of what could be termed “street mafias.” Bands of children, teenagers, and sometimes adults, roamed the streets of major cities, looking for parked cars, and looting items such as tires (spare or otherwise), bumpers, rearview mirror, side mirrors, radio antennae, radios, and even glass windshields: anything and everything that could make a profit at any of the semi-sanctioned “grey markets” or outlawed “black market” locales.⁸

This level of criminal activity does raise the question, why didn’t Soviet citizens guard more closely their precious automobiles? Officially, crime was a non-issue to the average citizen. Education and proper attendance at the Workers Party meetings would veritably eradicate criminal tendencies. However, the reality often was that, while Moscow and Leningrad police could often be brutal, they cared little for the apprehension of petty thieves. Soviet citizens were forced to drive their cars to the edges of cities, the only places where parking garages could be found. The wait to be assigned a parking garage slot was almost as long as actually acquiring the car, and the process could not be initiated until after the assignment of the automobile to the individual, or submit their car to being parked on the side of the road. The post-war housing boom in the United

⁷ Ibid., 245-247.

⁸ Ibid., 247-251.

States had no analogous phenomenon in the Soviet Union, and the concept of suburbs did not exist, so the universal ownership of driveways was unheard of. Therefore, parked cars on the sides of streets were at the mercy of the whims of passersby's proclivities. Often, individuals would proactively take everything off that could be potentially stolen and hide them away in back rooms of homes until the car was needed. And so, due to hardships suffered via simple maintenance and the constant chore of keeping the automobile safe and in one piece, Soviet citizens would scrimp and save to bribe their way into ownership of a state-manufactured automobile, only to utilize a handful of times a year. More days than not it would sit, idle and stagnant.⁹

Cars were merely the first of many industries that compelled the Soviets compromise their beliefs, after both influences by the West and necessity dictated a change in ideology. Dozens of such industries, mainly electronic, were founded completely from scratch to satiate the growing demands of Soviet consumers.

TELEVISIONS

TELEVISION BECAME A cultural phenomenon, much like automobiles. The ownership of a television receiver set, and the production of entertainment programs, became a phenomenon of Soviet culture. But, unlike cars, Soviet television as an extant product and form of art came into its zenith at almost the same point that American television reached its own, as the influences of production and screenwriting were rapidly integrated into Soviet practices. American "Westerns" and Soviet "Easterns" (taking place in Mongolia and Kyrgyzstan, for example) aired on their respective airwaves, a remarkable turn of events, considering the cultural blockade that existed between the two nations and the governments' unwillingness to disclose source material used in the creation of its own cinema.

⁹ Ibid., 251.

The true difference in television broadcasting between the Soviets and Americans, though, lay with the receiving sets of the ordinary people. Soviet production of televisions moved out of prototypical stages following World War II, beginning in earnest in 1949, with the creation of the KVN-49, an analogous invention to the earlier RCA-1, of which nearly three million were manufactured until 1960. The vacuum tubes used to power these televisions were Soviet-produced models, based on radio tubes scavenged post-war from American Lend-Lease radio sets. The Soviet tubes, at the time, were inferiorly manufactured and not suitable for portable long-range radio sets. However, following the war, the Soviets did not see fit to spend resources on constructing and refining their own vacuum tube design. Instead, they opted to simply reverse-engineer and copy American radio tubes, incorporating them into the design elements of the television.¹⁰

The American tubes, though superior to their Soviet-made models, were too weak to handle the strain of producing moving images while simultaneously powering the audio receiver. That fact, coupled with the proclivity for power surges in major cities such as Moscow and Leningrad, made owning a KVN-49 dangerous. This was because, under conditions of prolonged usage (roughly eight hours), the television set had the unfortunate tendency to explode catastrophically. Besides, many Soviet consumers scrounged the floor models and requested private access to the backrooms of the often rare Soviet “department stores” to find television sets that had manufacture dates corresponding to the first half of a month. These sets, built early in any given month, were of higher quality than those which came later in the month. The reason was that, as the month ended, many factories found themselves behind on their quotas. The corresponding surge of production assured these newly produced

¹⁰ Kristin Roth-Ey, “Finding a Home Television Set in the Soviet Union, 1950-1970.” *Slavic Review*. 66, no. 2 (2007): 278-305.

TVs were of inferior, rushed quality, leading to even further complications and making them even more dangerous during operation. An estimated five thousand fires were caused due to defective sets, with an unknown number of casualties.¹¹

America's television technology soon surpassed the outer limits of what the Soviet Union's was capable of. Color sets appeared in the Soviet Union as early as 1965, but were far from affordable for the average citizen, at an average of nearly 200 rubles versus the 120-ruble price a black and white television commanded. (The average Soviet worker made 700 rubles yearly.) Instead, a novel concept was invented. Colored plastic lenses were set in front of the television, to mirror semi-chromatic television broadcasts. This mimicry, though, was less than ideal. The size of screens, too, was abysmal, with the KVN-49's spanning only about five and a half inches in length. To compensate, a glass dish was set in front of the screen like a magnifying glass. This hollow lens then acted as a reservoir for water, effectively creating a refracting projector to simulate a much larger screen.¹²

TOASTERS AND OTHER HOUSEHOLD GOODS

TOASTERS, LIKE THOSE seen in many American households, were nearly unknown to the Greater Soviet Union. They were only manufactured at one, single remote and solitary factory in the Moldavian Soviet Socialist Republic. They were produced at the *I.V. Lenin* factory, near Beltsy, one of the largest cities in the whole of the Moldavian SSR, with a population of about fifty thousand throughout much of the 20th Century. Here, toasters enjoyed some recognition. But, despite its specialization to the one, singular product, the factory produced only ten thousand individual toasters every year. This

¹¹ Ibid.

¹² David Grossman, "The Soviets Used Magnifying Glasses to Watch TV." *Popular Mechanics*, June 19, 2019, accessed October 9, 2020, <https://www.popularmechanics.com/science/a28102367/soviet-television-magnifying-glass/>.

atrocious production rate, coupled with the massive number of Soviet citizens, insured that demand for toasters was never more than what could be produced for the locals by the single factory.¹³

Much like the toasters, other seemingly benign products, such as refrigerators and washing machines, were in short supply, and often were simply nonentities in the Soviet consumer warehouses. As late as the 1980s, Soviet economic planners began to realize the value of time-saving consumer products. Time and resources were valuable assets to the Soviets, and streamlining the everyday lives of its citizens to preserve those resources was an activity of paramount importance to the Economic Council. In the 1920s, Stalin had instituted “plans” of varying length and breadth. The most pivotal of these was the “Five-Year Plans,” followed then by the “Twenty-Year Plans.” In the first “Five-Year Plan” of the 1980s, the Economic Council realized the necessity and possible utilization of home appliances for Soviet citizens. It was estimated in their own report that seven hundred man-hours could be saved per family of four by having within their home a full complement of home utilities and appliances.

Consumer goods were also a point of chafing between the Soviet Union and the various “autonomous” Soviet Socialist Republics under its control. This was visible as, in the 1980s, the government began attempts to streamline the geographic manufacture of simple consumer goods by taking a large portion of control over state-run businesses. The “Five-Year plan” used the example of how, in the Soviet Socialist Republic of Ukraine, plastic clothespins were manufactured in factories (termed “enterprises”) in every single *oblast*, or district/state making up the Ukraine SSR, and these enterprises were run by at least ten departments and ministries, even though the demand for plastic clothespins in the entirety of Ukraine did not

¹³ Steven R. Reed, “The Great Soviet Toaster Mystery,” *United Press International*, November 20, 1982, accessed October 9, 2020, <https://www.upi.com/Archives/1982/11/20/The-great-Soviet-toaster-mystery/5966406616400/>.

exceed what could be manufactured by a single, dedicated clothes-pin factory. This is merely a cross-section of the level of bureaucratic morass encountered during the construction of basic kitchen and laundry appliances.¹⁴

ELECTRIC GUITARS

ELECTRIC GUITARS, BEING a purely American invention, were slow to proliferate in the USSR. So limited was the knowledge of them that, upon the USSR's decision to begin production of the instruments, no knowledgeable technicians could be found in any enterprise in the entirety of the nation who was versed in the construction of electric guitars. And so, in 1965, the USSR practically reinvented the electric guitar from scratch. The Ural and Formosa models, the two most expensive and sought-after models, were themselves copies of the Danelectro '58 and the Gretsch DuoJet, respectively, but the only reference materials on hand were catalogs from West Germany, and photographs of the instruments in the hands of famous American musicians.

Soviet technicians' hand-planed the first examples out of Siberian spruce and experimented with wiring plans and harnesses, creating, as they did so, novel effects built directly into the control modules of the guitars. Soviet instruments were listed at 130 rubles, whereas American instruments often commanded prices up to 2,000 *rubles* (roughly \$1,900) in 1985, the equivalent of nearly \$5,000 in today's economy. Most Soviet citizens made roughly 700 rubles a year, which testifies to the reverence paid to smuggled American instruments.¹⁵

¹⁴ I. Rakhlin, I, "New Technology and Personal Consumption (the Socioeconomic Aspect)," *Problems in Economics* 25, no. 3 (1982): 21-38.

¹⁵ Terry Bright, "Soviet Crusade against Pop," *Popular Music* 5 (1985): 123-48.

RADIO

POSTWAR RADIOS IN the Soviet were, truly, no different than those manufactured in the United States. As in televisions, post-war copycats of American vacuum tubes were used, but unlike their utilization in the television sets, their propensity for exploding was much reduced when installed in radios.

What truly set the Soviet citizen's radio experience apart from that of a Western individual was the total lack of non-Soviet, non-governmental programming. Whereas, throughout Western Europe, the broadcasts of Radio Free Europe, Radio Liberty, the British Broadcasting Corporation, and the Voice of America could be heard by tuning the dial to the appropriate frequency, these signals were unavailable in the Soviet Union. The reason for this was the radio phenomenon known commonly as "the Russian Woodpecker." The Woodpecker System, developed by Soviets to block incoming radio signals from being dispersed across the border, effectively acted as a literal "wall of sound." It accomplished this by directing sonic beams in a controlled, directional pattern skyward across the entirety of the known radio frequency spectrum, thus distorting and destroying any radio signals caught in its path.¹⁶

CONCLUSION

SOVIET CONSUMER technology, from automobiles to the automatic washing machine, was, plainly put, often mimicry of analogous American products. Any individual who happens across an extant specimen of Soviet manufacture, on their first impression, will notice it is not of quality. Though for many the nostalgia of yesteryear plays a certain part, it can be roughly generalized that American products of similar vintage are often of higher quality construction.

¹⁶ Wilson, David L. "The "Russian Woodpecker . . . A Closer Look." *Monitoring Times*, Summer 1985, accessed October 9, 2020, <http://www.mysterysignals.signalshed.com/Wpecker5.html>.

The other fact to be noted is that, looking at simple, bare production numbers, Soviet goods did not have quantity on their side, either. Even granting the fact that the Soviets had, for the majority of their history, no free market production, and therefore no overproduction or saturation of goods in the marketplace, many Soviet products were chronically, and to many a Soviet citizen comically, in short supply. It is often joked in modern economic circles that one can tell how a nation-state is faring societally and economically by looking at the number of toasters the nation's factories produce. Toasters, being a pure creature comfort (it is not necessary for food preparation or to maintain a standard of living), are a decent analog for prosperity. If that is the case, the Soviets ran about 10,000 a year, for distribution to a population that hovered well over 100 million individuals for the majority of its 69 years of existence, essentially equating to roughly one toaster for every 10,000 Soviets. And one exploded television for every 20,000 comrades.¹⁷

Ideologically, militarily, and in many cases scientifically, the Soviet Union and the United States can be said to have been rivals, two great symbols of the polarizing power of human ambition and stubbornness, but in one way, a crucial way, the Soviet Union was a distant second: the basic ability to provide for its citizens what they could not make themselves. Communism, regrettably, cannot be eaten nor wrapped around oneself for warmth, but it can organize perhaps the greatest disparity ever seen between military might and resource wealth and the greatest absolute disregard for the material comfort and security of citizens in the history of mankind.

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