

Fixing Holes in the Plan: Maintenance and Repair in Communist Europe, 1945-1970

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The shortcomings of communist central planning have been extensively analyzed, but few researchers have probed the ways in which planners' relentless focus on growth left gaping holes in socialist societies' capabilities for, and commitments to, maintaining what had been built or produced. This essay will highlight the organizational consequences and practical implications of this phenomenon in post-1945 Central Europe, focusing on Poland, Hungary and Czechoslovakia. In construction, budget and political pressures to continuously commence new building projects overshadowed relatively underdeveloped state provisions for maintaining (and often, even completing) them. Indeed, whereas funds for construction and new equipment anchored enterprise and agency allocations, repair and maintenance costs were specifically excluded from budgets.¹ In consumption, communist hostility to residual small enterprises which in capitalist times had offered plumbing, carpentry, roofing and other maintenance services was pervasive; their eradication was undertaken through denial of access to necessary supplies for such work.

Nonetheless, enterprise workers and managers forged creative responses to these challenges. In manufacturing, the routine undervaluing of maintenance and repair yielded persistent patterns of breakdown, parts shortages, and improvised repair – which became formalized into traveling squads of specialist “fixers,” who operated largely outside the regime's culture of control. And in everyday life, citizens and consumers confronted both limited (and expensive) supplies of apparel and modern appliances, as well as daunting prospects for getting aging shoes or radios fixed outside the ‘black economy.’ Even the Party-controlled press published complaints and demanded that state administrators address the situation – which they did by the mid-1960s, chiefly by backtracking on eradicating entrepreneurship, licensing part-time repair enterprises across the socialist bloc. In a sense, the Communist People's Republics represent an inversion of the West's throwaway society, an environment in which stretching use, scavenging for parts and tools, and determined recycling triggered eager, even desperate,

¹ Jan Michal, *Central Planning In Czechoslovakia*, Stanford: Stanford University Press, 1960, 173.

creativity. Remarkable stories emerge from the archives whose holdings document such practices, several of which follow as examples for reflection and discussion. They are drawn from, first, building maintenance & repairs, then machinery repair and its corollary, spare parts shortages, and last, household/appliance servicing.

In the mid-1970s Hungarian housing economist Peter Mihályi asked how it could be possible that, “in a centrally planned economy, with the planners being fully aware of the fact that maintenance work cannot be neglected with impunity, there is no regular, preventative maintenance and renovations are put off repeatedly.” As his Polish colleague, Witold Nieciński, had argued twenty years earlier, Mihályi explained this as the result of two conditions: incredibly low rents (necessitated by workers’ incredibly low wages) and an ongoing housing shortage, itself a contradictory consequence of serious wartime housing destruction, construction planning’s emphasis on industrial and infrastructure projects, and the abandonment of housing work to “small and midsize companies... not suitable for meeting fast enough the huge demand.” Put more simply, with little state funding allocated for new, renovated, or replacement housing and less for maintenance budgets, antiquated urban structures remained filled with dispirited families grumbling at equally discouraged building managers, hired by the state’s Communal Management Enterprises. Hence, “an attitude of ‘patching’ has inevitably prevailed.” Even patching was often obstructed by the disappearance of building materials, routinely “appropriated” by residents working on their own flats or by quietly-entrepreneurial craftsmen taking on small jobs outside working hours or between state projects.²

There was also a class politics of maintenance in the classless system:

As the renting of an apartment is not the only way to get a place to live, the upper strata of the social hierarchy, whose demands are not met in this rental dwelling market, have the opportunity to live in cooperative or privately-owned flats and houses of much better state. This mechanism... lessens the possibility that the more influential members of society... intellectuals, functionaries, top executives, etc., [will] express in large numbers their dissatisfaction at the conditions and situation of rented dwellings.³

² Peter Mihályi, “A Typical Waste of a Centrally Planning Economy: Unsatisfactory maintenance of council houses in Budapest,” *Economics of Planning* 14:2 (1978): 81-95; Witold Nieciński, “The Rent Problem in Poland,” *Życie Gospodarcze* (Economic Life) 1 March 1959, Selected Economic Translations on Eastern Europe, 24 August 1959, Joint Publications Research Service Report 1860-N, available at <http://infoweb.newsbank.com.proxy.libraries.rutgers.edu/iw-search/we/HistArchive>, a subscription database.

³ Mihályi, “A Typical Waste,” 85.

Unsurprisingly, the dribble of renters' monthly payments was wholly inadequate to undertake any but emergency fixes. Indeed, a quarter century earlier, a Polish electrician reported that he more than doubled his monthly factory earnings "by installing electrical wiring in *private houses and small private businesses*, as well as by repairing motor failures for farmers." He solved his supply problems in serving upper cadres and independent farmers by scrounging wire from bombed or abandoned buildings.⁴ Equally troubling, construction firms routinely left housing blocks unfinished, shifting to new projects every year, as fresh assignments and investment allocations came through from central planners. Hence both tenants and black-market craftsmen regularly had to finish apartment installations before the maintenance and repair cycle could even begin.⁵

Repairing industrial machinery was always urgent, given plan targets and deadlines, but few enterprises could support on-site repair teams who would be inactive much of the time. Poland solved this conundrum for its sizable, dispersed paper industry by creating three Refitting and Assembling Works (ZRM) near Poznan, Katowice, & Wroclaw (formerly Breslau). At each plant, 200+ metalworkers repaired, recast, and refitted basic Fourdrinier components, especially motors, bearing sets, cylinders and presses, copying stock templates from the Interwar decades. When a paper factory reported a failure, repair brigades hit the road. Teams of six to twelve men transported the most likely replacement parts to the site and worked 12-hour days without Sunday breaks until the system was up and running, often using local machine shops to create new parts to replace those past fixing. Yet these plainly exhausting jobs were treasured, even celebrated. How come?

First, being on the road meant freedom from management or Party supervision and censure. With a compliant brigade leader, craftsmen could work their way through constantly-changing mechanical challenges, then report 16 hours labor instead of 12 and take paid mini-vacations during the 48-hour test period after repairs (which the leader and a few others would handle). Staying with paper workers' families, paid 24 zloty/day (about \$3.00), team members got better food and lodgings than offered by state hostels.

⁴ "A Polish State Brewery," Radio Free Europe Item 172/54 (12 January 1954), Open Society Archives, Budapest, File HU OSA 300-1-2-42584, accessed 13 March 2016 at <http://www.osaarchivum.org/greenfield/repository/osa:6f4d954a-481d-4e85-af9c-5af1cebee9a9>

⁵ Ota Šik, *Czechoslovakia: The Bureaucratic Economy*, White Plains, NY: International Arts and Sciences Press, 1972., 50.

They often earned 2000 zloty a month, double what factory metalworkers took home. And they had adventures, as when a brigade finished a big job just before Easter weekend 1953. Six members had gone home for the holiday, leaving the leader and three mechanics to supervise the test startup. Here's the story:

The ZRM men had favored putting in a new roller, because the old one was too worn out and would not hold together, even with a very careful repair job. The engineer of this factory had a different idea and was particularly interested in saving money. He insisted that it be repaired instead of replaced. The brigade agreed to do the job as the engineer wanted only after the latter had made a written guarantee to bear the responsibility. The brigade carried out the repairs and [on Good Friday], after a few hours in operation, the roller broke as they had expected. The machine... had to be put back in working order as fast as possible.

On Saturday, after the four required [morning] work hours, the factory management tried in vain to persuade some of their own men to remain and help the four mechanics. All the factory workers were in a holiday mood and went home immediately. They didn't show up on Sunday, either, though several were individually asked to do so. In the end, there was nothing for the engineer, the factory director, and the UB (secret police) men, who had been summoned for the emergency, to do but to pitch in and help out on the job as best they could.

[Having completed the replacement, the RFE] Source and his three friends finally boarded the train on Sunday evening and slept soundly until they were shaken away at their destination in Silesia the next day. They were so tired that they had slept entirely through Easter Monday.⁶

It may well be that repair brigade workers' affection for their jobs also derived from a relatively rare experience in socialist industry, satisfaction in accomplishments.

Still, across socialist Central Europe, *finding* parts and components was a never-ending misery. The *need* for parts had two distinct sources: low rates of replacement for obsolete capital goods (machinery, transport & farm equipment) meant that only dutiful maintenance could prevent repeated breakdowns. In Czechoslovakia, some 300,000 industrial workers (of 2.0 million total) were assigned to maintenance jobs, trying, for example, to keep 7,000 19th century fabric looms running in the nation's textile mills.⁷ Second, planning targets focused chiefly on output quantities entailed that quality shortcomings haunted "light industry": consumer durables, food, clothes, shoes, etc.⁸

⁶ "Polish Paper Industry Repair Plant," RFE Item 7097/54, 14 August 1954, File HU OSA 300-1-2-49533.

⁷ "Obsolete Equipment Hinders Economic Progress," RFE File HU OSA 300-8-3-1824, 19 August 1966.

⁸ Performance testing and requirements in heavy industry (machinery, locomotives, chemicals and pharma) were quite demanding, given Cold War stress points, but consumer goods were peripheral to policy priorities until roughly the mid-1960s.

Finding spare parts for household electrical goods, much less someone to repair them was truly challenging. At the root of feeble parts *supply* lay the perverse incentives built into planning targets. If a tractor or refrigerator maker was expected to generate 1,000 tons or 2,000 units of final products annually, spending labor time and materials stocks on making 200 extra axles or compressors did nothing to reach plan goals, indeed detracted from achieving them (and the accompanying bonuses for managers, engineers and workers). Military directives forced production of spare parts reserves for weapons, tanks and planes, but such compulsion rarely existed on the civilian side. Hence, industrial users needing parts could cannibalize comparable “dead” machines for working components, send out “chasers” to solicit parts from firms operating the same devices (bartering, usually), craft replacements on-site, or create “special arrangements” with skilled workers at the originating enterprise to machine a dozen drive shafts or assemble a extra score of switch-gears . Consumers, retailers, and service sector enterprises could apply to state-managed repair enterprises, with waiting lists up to a year, or seek help in the informal economy from covert entrepreneurs. Refrigerators were a quality sinkhole: nearly two-thirds of them failed in their first year of use, most often due to faulty compressors.⁹

One detailed example will have to suffice here: the great Polish vehicle enterprise, Ursus. After postwar rebuilding, tractors became its specialization, starting with the simplified C-45 (ca. 100,000 delivered, 1947-56). Larger, more powerful models multiplied after 1956, their success enabling Ursus to “give up” its annual state budget supplement in 1965, as declining production costs “guarantee that the factory makes a profit.”¹⁰ Ursus representatives regularly convened tractor-users’ conferences, at which complaints about shortcomings (cracking of cylinder blocks) joined suggestions for

⁹ Stalin-era socialist transformations aggressively undercut “petty capitalists” in service trades, such that tailors, shoe repairers, hardware stores, and small appliance restorers disappeared from city and town streets. Reversing this was recognized in the 1960s as a necessary step to satisfying deeply-disgruntled citizen-workers, but it was nowhere a sufficient priority to be done well. A generation-long hole in services could not be filled quickly. Second, there was no cash-based black market for parts, not least because socialist finance strategies undertook to minimize the amount of cash circulating in their economies, precisely to obstruct initiation of market transacting. Personal contacts and barter fueled most exchanges.

¹⁰ “100,000 Ursus Tractors,” *Mechanizacja Rolnictwa* (Mechanized Agriculture) 16-31 January 1964, Translations on East European Agriculture, Forestry, and Food Industries, No. 247, JPRS 24439, 1 May 1964.

improvements (closed, glassed-in cabs). Yet before the 200,000th Ursus rolled off the line in April 1968, the proliferation of designs had produced a nagging problem – shortages of spare parts. The parts problem blew up in 1965, with national television news broadcasting that tractor repairs had stalled because of supply delays. The Ministry of Agriculture then aggravated the situation with a series of “quite strange, incomprehensible” orders, for example, routing 600 non-functioning tractors from Poznań to the Zdzary repair center, 200 kilometers distant, which had expected twenty.¹¹

The dilemma lay not just in weak planning for spares, nor in suppliers’ “ugly habit of failing to discharge their obligations,” but fully as much in the sheer complexity of the parts universe. Ursus machines together counted some “34,000 items of spare parts,” proper inventories of which would weigh 100,000 tons, annually replenished by 300 parts-making firms to supply 4,000 clients, chiefly distributors and repair units. In autumn 1964, over 4,800 tractor parts were “reported to be in shortage”; something 12,000 inter-regional transfers only partly addressed. Ursus had neither the space nor sufficient underutilized tools to re-centralize parts manufacture, which is why Poland’s Agricultural Equipment Sales Center had created a contracting network in the first place. Four years later, regional repair shop directors agreed that the famine persisted: “supply clerks... are constantly traveling over the entire country for spare parts.”¹²

Socialist managers and economists recognized in the first postwar decade that central planning was incomplete, awkward, and rich with contradictions that markets were solving readily in the West. Yet they refused to embrace the social consequences of capitalist restoration, an economy increasingly designed for traders not for citizens, thus

¹¹ “Ursus Tractors and Farm Motors,” *Mechanizacja Rolnictwa* (Mechanized Agriculture), 16-31 March 1966, Translations on East European Agriculture, Forestry, and Food Industries, No. 441, 19 May 1966; “Planned Ursus Tractor Production Reported,” *Ibid.*, 15-31 July 1968, TEE-EIA, No. 30, JPRS 46348, 4 September 1968; “Lack of Spare Parts is Synonymous with Building Socialism in Poland,” RFE File HU OSA 300-8-3-44343, 30 January 1961. Spare parts were also a transport trouble spot. For Polish railways, see “What are the Reasons for the Spare Parts Shortage?” *Sygnaly* (Signals) 25 October 1964, Translations on East European Service Industries, No. 325, JPRS 27759, 9 December 1964.

¹² Andrzej Pluciński, Discussion of the Problem of Spare Parts is Suspended,” *Mechanizacja Rolnictwa* (Mechanized Agriculture), 1-15 March 1965, Translations on East European Agriculture, Forestry, and Food Industries, No. 359, JPRS 29946, 5 May 1965; E. Fafara, “Spare Parts Shortage Hampers Farm Machine Repair,” *Zielony Sztandar* (Green Banner), 11 March 1969, TEE-EIA, No. 109, JPRS 47825 10 April 1969. Green Banner is a journal associated with rural issues, started by the Peasant Party in 1931. Shortages, of course, are a core issue Janos Kornai identified in *The Economics of Shortage*, Amsterdam: North Holland, 1980.

having to accept the consequences of socialist enterprise, here, deep defaults in maintaining collective assets and obligatory improvisation in repairing anything.